EXPLORING REHABILITATION AND SCHOOL REINTEGRATION INTERVENTIONS FOR INMATES WITH DUAL DIAGNOSIS TO MITIGATE THE SCHOOL-TO-PRISON TREND IN NIGERIA

BY

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ABSTRACT

The school-to-prison pipeline is one of the most overwhelming challenges facing special education in Nigeria. The trend of directly referring erring students to law enforcement for committing certain offenses at school or creating conditions under which students are more likely to become involved in the criminal justice system has become alarming. Instead of providing support and opportunities for these students, they often face harsh disciplinary measures like imprisonment that increase their chances of becoming involved in more criminal activities. Many teachers and parents of children with dual diagnosis have consistently decry the manner at which their students and wards are been funneled out of the classroom into the criminal justice system without provision of support and rehabilitative services. School-to-prison pipeline often lacks diversion programs such as forensic psychotherapies, prison special education, vocational training and mental healthcare for offenders with dual diagnosis. This work comprehensively identifies and describes specific, evidence-based tools to dismantle the school-to-prison pipeline that lawmakers, the criminal justice system, school administrators, and teachers can immediately support and implement.

The study adopted a descriptive survey design of correlational type. Purposive sampling technique was used to sample 320 respondents comprising of 216 parents, 98 teachers and 6 State Comptroller of Correctional Services. Three instruments: Rehabilitation Interventions for School Reintegration (RISR), Inventory of Prevalence, Rearrests and Crime (IPRC) and unstructured interview self-developed and validated with reliability coefficients ranging from 0.85 to 0.89 were administered to the 320 respondents. Three research questions were raised and answered in the study. Six hypotheses were tested at 0.05 level of significance. The data collected were statistically analyzed using descriptive analysis, PPMC Analysis and multiple regression analysis.

The result showed that a total of 576,867 inmates with dual diagnosis have been funneled out of the school into the Nigerian criminal justice system from 2010 to 2021. Furthermore, there is little to no rehabilitation interventions programmes and services for such inmates. It was also revealed that cognitive behavioural therapy ($r=0.726$, $P < 0.05$), with family therapy ($r=0.758$, $P < 0.05$) and mental healthcare services ($r=0.505$, $P < 0.05$), correctional special education services ($r=0.627$, $P < 0.05$) and with vocational skills training ($r=0.762$, $P < 0.05$) have significant relationship with post-release school reintegration of school-to-prison inmates with dual diagnosis. It also found that these five variables make 82% (Adj. $R^2 = 0.82$) contribution to effective post-release school reintegration of school-to-prison inmates with dual diagnosis. Similarly, the result also showed that cognitive behavioural therapy, family therapy, mental healthcare services, correctional special education and vocational training individually makes significant contribution to effective post-release school reintegration of school-to-prison inmates with dual diagnosis.

It is concluded based on the findings of the study that cognitive behavioural therapy, family therapy, mental healthcare services, correctional special education and vocational training are germane to effective post-release school reintegration of school-to-prison inmates with dual diagnosis. Based on these, it was recommended amongst others that schools, the criminal justice system and other law enforcement agencies should implement these effective tools to disrupt the created school-to-prison pipeline in order to foster post-release school reintegration offenders with dual diagnosis
Word Count: 510.

Key word: dual diagnosis, school-to-prison pipeline, rehabilitation, reintegration

Declaration of Originality

Orim Matthew (student ID 80102245, D240638) declare that this dissertation entitled "*Exploring rehabilitation and school reintegration interventions for inmates with dual diagnosis to mitigate the school-to-prison trend in Nigeria*" submitted as partial requirement for PhD. study program in special education is my original work and that all sources in any form (e.g., ideas, figures, texts, tables, etc.) that I have used or quoted have been properly acknowledged and cited in the text as well as in the list of references.

Signature: Date:08.04.2025

DEDICATION

This research project is dedicated to God and my family, Ashike Livian Nathaniel and my 3 princesses

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ABSTRACT

The school-to-prison pipeline is one of the most overwhelming challenges facing special education in Nigeria. The trend of directly referring erring students to law enforcement for committing certain offenses at school or creating conditions under which students are more likely to become involved in the criminal justice system has become alarming. Instead of providing support and opportunities for these students, they often face harsh disciplinary measures like imprisonment that increase their chances of becoming involved in more criminal activities. Many teachers and parents of children with dual diagnosis have consistently decried the manner in which their students and wards are being funneled out of the classroom into the criminal justice system without the provision of support and rehabilitative services. The school-to-prison pipeline often lacks diversion programs such as forensic psychotherapies, prison special education, vocational training, and mental healthcare for offenders with dual diagnosis. This work comprehensively identifies and describes specific, evidence-based tools to dismantle the school-to-prison pipeline that lawmakers, the criminal justice system, school administrators, and teachers can immediately support and implement.

The study adopted a descriptive survey design of correlational type. A purposive sampling technique was used to sample 320 respondents comprising 216 parents, 98 teachers, and 6 State Comptrollers of Correctional Services. Three instruments—Rehabilitation Interventions for School Reintegration (RISR), Inventory of Prevalence, Rearrests, and Crime (IPRC), and an unstructured interview—were self-developed and validated with reliability coefficients ranging from 0.85 to 0.89 and administered to the 320 respondents. Three research questions were raised and answered in the study. Six hypotheses were tested at a 0.05 level of significance. The data collected were statistically analyzed using descriptive analysis, PPMC Analysis, and multiple regression analysis.

The results showed that a total of 576,867 inmates with dual diagnosis have been funneled out of school into the Nigerian criminal justice system from 2010 to 2021. Furthermore, there are little to no rehabilitation intervention programs and services for such inmates. It was also revealed that cognitive behavioral therapy ($r=0.726$, $P < 0.05$), family therapy ($r=0.758$, $P < 0.05$), mental healthcare services ($r=0.505$, $P < 0.05$), correctional special education services ($r=0.627$, $P < 0.05$), and vocational skills training ($r=0.762$, $P < 0.05$) have a significant relationship with the post-release school reintegration of school-to-prison inmates with dual diagnosis. It also found that these five variables contribute 82% (Adj. $R^2 = 0.82$) to the effective post-release school reintegration of school-to-prison inmates with dual diagnosis. Similarly, the results also showed that cognitive behavioral therapy, family therapy, mental healthcare services, correctional special education, and vocational training individually make significant contributions to the effective post-release school reintegration of school-to-prison inmates with dual diagnosis.

It was concluded, based on the findings of the study, that cognitive behavioral therapy, family therapy, mental healthcare services, correctional special education, and vocational training are essential to the effective post-release school reintegration of school-to-prison inmates with dual diagnosis. Based on these findings, it was recommended, among other things, that schools, the criminal justice system, and other law enforcement agencies should implement these effective tools to disrupt the school-to-prison pipeline in order to foster the post-release school reintegration of offenders with dual diagnosis.

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CHAPTER ONE

INTRODUCTION

1.1. Background

The school-to-prison pipeline is a systematic trend that is concerning in which children, particularly those belonging to marginalized communities, become funnelled from the education system into the criminal justice system. The school-to-prison pipeline represents a global crisis, with studies from countries highlighting its pervasive impact on marginalized populations. For instance, in the U.S., the American Bar Association (2021) in a publication "Shutting Down the School-to-Prison Pipeline" examines how exclusionary discipline practices disproportionately push youth of color and students with disabilities into the justice system. Similarly, in Australia, the Queensland University of Technology (2022) links school suspensions among disadvantaged students, particularly Aboriginal youth, to increased criminal justice contact. Furthermore, in the U.K., Breakspear (2022) exposes how high exclusion rates contribute to criminal exploitation and incarceration in England. These studies reveal a shared pattern of systemic failures in education systems worldwide, underscoring the urgent need for reforms to dismantle this damaging pipeline.

In Nigeria, similar to the U.S., Australia, and the U.K., marginalized groups such as children from low-income families and those with disabilities face school exclusions due to inadequate resources and support. These exclusions push vulnerable children into cycles of poverty and crime, with limited opportunities for rehabilitation or reintegration. The situation highlights the urgent need for inclusive education policies, better teacher training, and community-based interventions to prevent at-risk youth from entering the school-to-prison pipeline.

This phenomenon disproportionately affects individuals with intellectual disabilities and doubly those with comorbid mental health conditions. Individuals with intellectual disabilities (ID) and comorbid mental health conditions face particular challenges within this pipeline, as their complex needs are often underserved in both the educational and correctional systems (Anderson, Ritter, & Zamarro, 2017). They face unique challenges when it comes to reintegration into society post-release, including difficulties in accessing education and mental health services.

Individuals with intellectual disabilities and mental health conditions are overrepresented in the criminal justice system, with studies indicating that up to 70% of inmates have some form of cognitive impairment or mental illness (Anyon, et al. 2016). Studies such as Kaptein, Jansen, Vogels, and Reijneveld, (2017) and Orim and Orim (2018) have shown that these individuals are at

an increased risk of encountering law enforcement, being arrested, and facing incarceration due to a multitude of factors, including difficulties in understanding legal proceedings, challenges in communication, and limited access to appropriate support services. Moreover, individuals with intellectual disabilities often have comorbid mental health conditions, such as anxiety disorders, depression, or behavioral disorders. These mental health conditions can further exacerbate their difficulties in school and increase their likelihood of becoming involved in the criminal justice system (Monrea & Hirra, 2016).

The intersection of intellectual disability and mental health issues presents unique challenges for individuals as they navigate the school-to-prison pipeline. Inadequate support services, stigma, and lack of resources often result in individuals with ID and mental health conditions being disproportionately pushed towards incarceration rather than receiving the necessary care and interventions (Baker & Fread, 2016). Furthermore, the transition from correctional facilities back into the community, particularly in terms of school reintegration, can be daunting for individuals with intellectual disabilities and comorbid mental health conditions due to the limited availability of tailored services and support systems.

In Nigeria, the educational system faces numerous challenges, including inadequate funding, lack of trained special education teachers, and insufficient resources to support students with special needs (Seigel & McCormick, 2016). These challenges create an environment where students with intellectual disabilities and mental health conditions often do not receive the necessary support to thrive academically and socially. Instead, these students are frequently subjected to punitive disciplinary measures such as suspensions, expulsions, and other forms of exclusion, which contribute to their disengagement from the educational process (Social Solutions, 2019). The absence of supportive and inclusive educational practices exacerbates the vulnerability of these students, increasing their likelihood of involvement with the juvenile and criminal justice systems. The rigid and often punitive disciplinary policies fail to address the underlying issues faced by these students, instead criminalizing behaviors that stem from their disabilities and mental health conditions.

The Nigerian criminal justice system typically lacks the necessary resources, infrastructure, and trained personnel to effectively rehabilitate inmates with intellectual disabilities and mental health conditions. Prisons are often ill-equipped to provide specialized education, vocational training, or mental health care, exacerbating the cycle of incarceration rather than facilitating successful reintegration into society (Tera & Aivin, 2014). Once these individuals enter the criminal justice

system, their challenges are further compounded. Nigerian prisons and juvenile detention centers are notoriously overcrowded and under-resourced, lacking adequate mental health services and rehabilitative programs (Shinerc, 2016). Inmates with intellectual disabilities and mental health conditions are often neglected, receiving minimal or no mental health care. This neglect not only worsens their mental health conditions but also impedes their ability to rehabilitate and reintegrate into society post-release. The high rates of recidivism among this population highlight the systemic failure to provide effective rehabilitation and support. Without proper mental health care and support, these individuals are more likely to re-offend, thus perpetuating the cycle of incarceration.

Without proper interventions and support, these individuals may struggle to navigate the complexities of the education system, leading to academic failure, disciplinary issues, and ultimately, repeating the circle. Prison can have significant detrimental effects on dually diagnosed prisoners (Peterson, 2017). The Nigeria prison environment continues to pose serious threats to the physical and mental well-being of inmates and prison officers alike. Conditions such as overcrowding, lack of medical/health facilities, poor toilet facilities and beddings, and denial of access to justice continues to persist in clear contrast to the requirement of the UN standards for the treatment of persons in custody. This state of affairs is attributable to action and/or inactions of all players in the administration of justice sector in Nigeria (Adelaja, 2019). These issues support the need for justice initiatives that enable the diversion of these offenders from the prison system and that enable the underlying causes of offending to be more effectively addressed. There is currently no provision in the Nigeria prison service to screen for intellectual disability and associated mental disorders so as to provide appropriate correctional services that guarantee quality reintegration into the community upon release (Amnesty International Researchers, 2017).

Significant improvements in the criminal justice system in developed countries in the past decade are efforts to identify dually diagnosed individuals in the system; understand the needs of these individuals and develop care pathways that facilitate the diversion of these individuals into systems of care that are more suitable and appropriate (Peterson, 2017). Diversionary programmes are alternatives to initial or continued formal processing of dually diagnosed youths in the criminal justice system (Tera & Aivin, 2014). They aimed to redirect individuals with dual diagnosis away from the formal processing in the criminal justice system. Diversion is based on the rationale that the offending behaviour can be primarily attributed to poor special education services, untreated, or ineffectively treated, mental disorder and the inadequacy or inaccessibility of existing educational and mental health services. In response to this, the criminal justice system in developed countries are making significant efforts to identify offenders with dual diagnosis in the system, understand

the needs of these individuals and develop care pathways that facilitate the diversion of these individuals into systems of care that are more suitable and appropriate. Thus, the system is changing; the provision of diversion for such individuals into case-specific forensic psychotherapies for rehabilitation, personal adjustment and self-fulfillment of the individuals has become the global best practice (Larson & Ivren, 2016).

To disrupt the school-to-prison pipeline and facilitate successful school reintegration post-release for individuals with intellectual disabilities and comorbid mental health conditions, interventions focusing on psychotherapies, mental healthcare, and empowerment programs have been identified as crucial components Tindsry, Lawal, and Taclead (2012). By addressing the underlying factors contributing to their involvement in the criminal justice system, these interventions aim to empower individuals with ID and mental health conditions, enhance their mental well-being, and equip them with the necessary skills to reintegrate into educational settings effectively. Research indicates that psychotherapies, such as cognitive-behavioral therapy, and family therapy, can be particularly beneficial for individuals with intellectual disabilities and comorbid mental health conditions Burger and Liwente (2016).

Cognitive behavioral therapy (CBT) focuses on changing negative thought patterns and behaviors. It has shown promise in addressing a range of mental health issues commonly experienced by individuals in correctional settings, including depression, anxiety, and antisocial behavior.

Family therapy is another valuable therapeutic approach that can be utilized to support individuals with intellectual disabilities and comorbid mental health conditions (Hart-Kerkhoffs, 2019; Chesterman and Rutter, 2013). Family therapy involves working with the individual and their family members to address relational dynamics, communication patterns, and family stressors that may be contributing to the individual's difficulties. By involving the family in the therapeutic process, individuals with intellectual disabilities can receive ongoing support and guidance as they navigate the challenges of post-release school reintegration. While evidence supporting the efficacy of these interventions in general correctional populations is robust, research specific to individuals with intellectual disabilities and comorbid mental health conditions is limited but emerging.

Equally, disrupting school-to-prison pipeline for individuals with intellectual disabilities and comorbid mental health conditions through mental healthcare can serve as a critical intervention to disrupt the school-to-prison pipeline (Ogu & Kayode, 2018). By providing tailored mental health services, including therapy, counseling, and medication management, these individuals can better understand and manage their emotions, behaviors, and mental health symptoms. According to

Larson and Ivren, (2016), moreover, mental healthcare can help address the underlying trauma, anxiety, or depression that may contribute to their involvement in the criminal justice system, thus reducing the likelihood of future encounters with law enforcement. Upon release from incarceration, individuals with intellectual disabilities and comorbid mental health conditions often face significant barriers to reentering school and community settings. Therefore, providing mental healthcare as a diversion for post-release school reintegration can address the underlying needs and challenges faced by individuals with intellectual disabilities and comorbid mental health conditions. Mental healthcare interventions can help individuals develop coping strategies, enhance their social and emotional skills, address trauma and stress, and improve their overall well-being. By incorporating mental healthcare into the reentry process, individuals with intellectual disabilities and co-occurring mental health conditions can receive the support they need to successfully transition back into school and community settings (Tera & Aivin, 2014).

Similarly, empowerment programs, including prison special education to promote literacy skills (Orim, Vojtec, & Assam, 2023) and vocational skills training play a critical role in promoting social skills development and peer support networks, as well as empowering individuals with intellectual disabilities and comorbid mental health conditions to thrive within educational and community settings (Okwudire & Orim, 2019). By fostering self-esteem, promoting social inclusion, and enhancing independence, these programs can help individuals break free from the cycle of the school-to-prison pipeline and achieve successful school reintegration post-release (Amnesty International Researchers, 2017). Moreover, by providing individuals with opportunities for personal growth and skill development, empowerment programs can significantly improve their prospects for long-term success and well-being.

These psychoeducational and healthcare services in addition to empowerment programmes are presumed to be beneficial forensic efforts aimed at disrupting the school-to-prison pipeline and promoting school reintegration of these offenders upon release. It is appropriate that school-to-prison offenders are identified and at earliest stages of criminal proceedings to divert them for appropriate preventative and correctional programmes suitable to addressing the criminal behaviours through multimodal and multiagency approach. Conclusively, this study underscores the urgent need for systemic change to address the school-to-prison pipeline in Nigeria. By focusing on the unique challenges faced by individuals with intellectual disabilities and mental health conditions, this research aimed to develop and advocate for comprehensive interventions that can facilitate their successful reintegration into the educational system and society at large (Sintrel, 2019). Through a combination of psychotherapies, mental healthcare, and empowerment programs,

the study seeks to promote social justice, reduce recidivism, and improve the life outcomes of this vulnerable population. It is against this background that this study was conceived to investigate the disruption of the school-to-prison pipeline through forensic psychotherapies, mental healthcare services and empowerment programmes to foster school reintegration of school-to-prison inmates with conditions of dual diagnosis.

1.2. Statement of the problem

The persistent school-to-prison pipeline is a grave issue in Nigeria, disproportionately affecting individuals with dual diagnosis—those concurrently having intellectual disabilities and mental health conditions. Studies reveal that over 65% of incarcerated individuals with dual diagnosis in Nigeria have histories of dropping out of school or being expelled, often due to behavioral issues linked to their conditions. These individuals are caught in a vicious cycle: a lack of early identification, inadequate access to mental health services, and the absence of targeted educational interventions lead to their initial failure in school. Without proper support, they spiral into criminal behaviors, often resulting in incarceration.

The consequences of this systemic failure are profound. Not only do these individuals face long-term incarceration, but they also experience deepened mental health issues, stigmatization, and a significant reduction in their quality of life. The Nigerian correctional system, which is ill-equipped to provide necessary mental health care and educational services, exacerbates these conditions. This has resulted in recidivism rates as high as 80% among this population, as they are released back into society without the tools or support necessary for successful reintegration.

Despite the evident link between dual diagnosis and the school-to-prison pipeline, there remains a glaring lack of comprehensive rehabilitative and reintegration interventions tailored to this vulnerable group. The absence of such interventions not only perpetuates their marginalization but also fuels the broader cycle of poverty, crime, and social instability in Nigeria. This thesis seeks to explore and advocate for effective rehabilitation and school reintegration strategies that can break this cycle, providing a pathway for these individuals to reclaim their lives and contribute positively to society.

It is against this background that this research is conceived to investigate the predictive contribution of therapies, mental healthcare services and empowerment programmes in mitigating school-to-prison pipeline by ensuring effective reintegration of these inmates into the school community upon release. The problem of the study is what is the contribution of cognitive behavioral therapy, family therapy, mental health healthcare services and empowerment programmes such prison special

education and vocational skills training to school reintegration of school-to-prison inmates with conditions of dual diagnosis in Nigeria?

1.3.Purpose of Study

The purpose of this study was to explore rehabilitation and school reintegration interventions for inmates with dual diagnosis to mitigate the school-to-prison trend in Nigeria. Specifically, the purpose of the study was to:

1. Determine the relationship between cognitive behavioral therapy, family therapy, and mental healthcare services, and the post-release school reintegration of dually diagnosed school-to-prison inmates.
2. Assess the predictive ability of cognitive behavioral therapy, family therapy, and mental healthcare services in relation to the post-release school reintegration of dually diagnosed school-to-prison inmates.
3. Explore the individual contributions of cognitive behavioral therapy, family therapy, and mental healthcare services to the post-release school reintegration of dually diagnosed school-to-prison inmates.
4. Investigate the relationship between prison special education services, vocational skills training, and the post-release school reintegration of dually diagnosed school-to-prison inmates.
5. Examine the predictive effectiveness of combined prison special education services and vocational skills training on the post-release school reintegration of dually diagnosed school-to-prison inmates.
6. Analyze the individual impacts of prison special education services and vocational skills training on the post-release school reintegration of dually diagnosed school-to-prison inmates.

1.4.Research Questions

The following research questions were posed to guide the study.

1. What is the prevalence of school-to-prison inmates with comorbid intellectual disability and mental health disorders in the criminal justice system from year 2010 to 2021?
2. What is the recidivism rate among ex-offenders by type of condition and crime committed between 2010 and 2021?
3. What rehabilitation interventions are available for inmates with conditions of dual diagnosis?

1.5.Hypotheses

To guide the direction of the study, the following hypotheses were formulated and tested at 0.05 level of significance

1. There is no significant relationship between cognitive behavioral therapy, family therapy, mental healthcare services, and the post-release school reintegration of dually diagnosed school-to-prison inmates.
2. The combined effect of cognitive behavioral therapy, family therapy, and mental healthcare services does not significantly contribute to the post-release school reintegration of dually diagnosed school-to-prison inmates.
3. The individual contributions of cognitive behavioral therapy, family therapy, and mental healthcare services do not significantly influence the post-release school reintegration of dually diagnosed school-to-prison inmates.
4. There is no significant relationship between prison special education services, vocational skills training, and the post-release school reintegration of dually diagnosed school-to-prison inmates.
5. The combined effect of prison special education services and vocational skills training does not significantly contribute to the post-release school reintegration of dually diagnosed school-to-prison inmates.
6. The individual contributions of prison special education services and vocational skills training do not significantly influence the post-release school reintegration of dually diagnosed school-to-prison inmates.

1.6.Significance of the study

The study will be beneficial to inmates with dual diagnosis, parents, educators, prison staff and administrators, government and policy makers, community and society and researchers and academics.

Inmates with Dual Diagnosis: These individuals, who have both a mental health disorder and a substance use disorder, would benefit from targeted rehabilitation and reintegration programs aimed at addressing their specific needs.

Parents: the findings of the study can provide parents of children with dual diagnosis insights into effective rehabilitation strategies during and after incarceration. It will empower parents to advocate

for better support systems in schools and communities, reducing stigma around mental health and substance use disorders. This knowledge helps parents support their children's educational and rehabilitative journey, enhancing their well-being and future opportunities.

Teachers: The study offers educators insights into evidence-based practices for supporting students with dual diagnosis in educational settings. It enhances professional development by improving educators' ability to identify and assist these students, fostering collaboration with mental health professionals and correctional staff. Educators can implement inclusive educational plans and early interventions, contributing to a decrease in the school-to-prison pipeline and promoting positive outcomes for vulnerable students.

Prison Staff and Administrators: Improved understanding and implementation of effective rehabilitation and reintegration strategies can lead to better management of inmates with dual diagnosis within the prison system.

Government and Policy Makers: Findings from the study can inform policies and practices aimed at reducing recidivism rates and improving outcomes for inmates, thereby contributing to broader criminal justice reforms.

Community and Society: By addressing the school-to-prison trend, there is potential to reduce crime rates, promote community safety, and enhance social cohesion.

Researchers and Academics: The study can contribute to academic knowledge in the fields of special education, criminology, psychology, and rehabilitation sciences, fostering further research and development of evidence-based interventions.

Overall, the study aims to benefit both individuals directly affected by dual diagnosis in the criminal justice system and society as a whole through targeted interventions and policy improvements.

1.7. Scope of the Study

This study delimited to explore rehabilitation and school reintegration interventions for inmates with dual diagnosis to mitigate the school-to-prison trend in Nigeria. It was further delimited to rehabilitative interventions programmes such as cognitive behavioral therapy family therapy, prison special education services and vocational skills training, and post-release school reintegration among school-to-prison inmates with conditions of dual diagnosis. Therefore, all generalizations were limited to these variables.

1.8. Operational definition of terms

The following terms were operationally defined:

Rehabilitation: Restoring functionality for inmates with intellectual disabilities and mental health issues.

Mental Health Conditions: Psychological disorders accompanying intellectual disabilities among incarcerated individuals.

School Reintegration Interventions: Programs aiding inmates' return to education post-incarceration, fostering social reintegration.

School-to-prison pipeline: Pushing Students out of school into the criminal justice system

Dual diagnosis: It is a condition in which an individual with intellectual disability has a comorbid psychiatric disorder.

Intellectual disability: This is a developmental condition in which an individual demonstrates below average social and adaptive deficits as well as intellectual functioning which may affect many everyday social and practical skills.

Diversion: It is an alternative route to initial or continued formal processing in the criminal justice system aimed in order to provide correctional services to offenders with unique needs.

Cognitive behavioral therapy: An approach that helps clients replace their negative thoughts with positive thoughts.

Family therapy: A counseling approach that tries to address dysfunctional home relationships.

Correctional mental healthcare services: This is psychiatric evaluation and administration of psychotropic treatment to inmates with mental disorders as part of correctional services in the criminal justice system.

Inmate: An offender with intellectual disability and associated mental disorder confined to a prison or correctional facility.

Prison special education services: It is an educational training using and adapted curriculum to inculcate acceptable social norms, community living and civic responsibility foster community integration.

Vocational skills training: This is a process of empowering inmates with lucrative job skills as a rehabilitative strategy in the criminal justice system to promote post-release self-sufficiency.

CHAPTER TWO
LITERATURE REVIEW

Literature was reviewed under the following sub-headings:

2.1. Conceptual review

2.1.1. School-to-prison pipeline

The school-to-prison pipeline refers to a disturbing trend where students, particularly those from marginalized communities, and special conditions of disabilities are pushed out of schools and into the criminal justice system for breaking the law. This pipeline is a result of various factors such as zero-tolerance policies, biased disciplinary practices, lack of adequate resources, and a failure to address underlying issues like mental health conditions, disabilities, poverty and systemic inequality (Anfara, Evans & Lester, 2013). The school-to-prison pipeline, as described by the American Civil Liberties Union (20219), is a "disturbing national trend" that pushes youth out of public schools and into the juvenile and criminal justice systems. Students with dual diagnosis are particularly vulnerable to school pushout and the differential use of exclusionary discipline (e.g., suspension and expulsion). It is a concept that highlights the link between the education system and the criminal justice system. It suggests that there is a flow of individuals from schools, particularly underfunded and disadvantaged schools, into the criminal justice system due to various factors such as harsh disciplinary policies, the school-to-prison pipeline phenomenon, and systemic inequalities.

There are both direct and indirect avenues through the pipeline. Directly, schools put students into the pipeline through excessive police involvement in imposing discipline and zero-tolerance policies that often end in arrest or referral to the juvenile justice system. Furthermore, police officers and metal detectors often transform schools from nurturing learning environments into virtual detention centers (Anderson, Ritter & Zamarro, 2017). Across the country, an alarming number of students, and a disproportionate number of students of dual diagnosis are being removed from mainstream educational environments for nonviolent violations of school policy, which many would consider to be typical childhood behavior. Schoolchildren who are removed from mainstream education environments, even for short periods of time, are far more likely to become involved with the criminal justice system, use drugs, or drop out of school. Few would question the importance of keeping our schools safe, but it is the overuse and misuse of these policies that raise concern; arresting students should never be seen as an acceptable method of discipline. Indeed, policies such as policing in schools and zero tolerance have been shown to be ineffective as corrective measures and instead serve to demoralize our children (American Civil Liberties Union 2019). Indirectly, schools put children on a path that far too often ends with incarceration through suspensions,

expulsions, high-stakes testing, push-outs, and the removal of students from mainstream educational environments and into disciplinary alternative schools.

The factors contributing to the school-to-prison pipeline are complex and multifaceted. Some common elements include:

Zero-tolerance policies: These policies enforce strict disciplinary measures for even minor infractions, disproportionately affecting marginalized students. This approach often leads to increased suspensions and expulsions, pushing students out of school and into the criminal justice system.

Bias and discrimination: Minority students, especially African American and Latino students, are disproportionately targeted for disciplinary actions, suspensions, and expulsions. This bias perpetuates racial disparities by funneling these students into the criminal justice system instead of providing proper support and rehabilitation.

Limited access to quality education: Students who attend underfunded schools with inadequate resources and poorly trained teachers face significant challenges in their educational journey. This lack of support hinders their academic progress and increases their likelihood of falling into a cycle of negative behavior and involvement in the criminal justice system (Anderson, Ritter & Zamarro, 2017).

Over-policing in schools: The presence of law enforcement officers on school campuses can turn minor disciplinary issues into criminal matters. This can lead to the arrest and prosecution of students for non-violent offenses, further perpetuating the pipeline.

Lack of alternative disciplinary approaches: Many schools lack effective alternatives to punitive measures like suspensions and expulsions. Restorative justice practices and programs focusing on addressing the underlying causes of student misbehavior can be more effective at keeping students engaged and reducing their chances of becoming involved in criminal activities (American Civil Liberties Union, 2019).

It is important to address this issue because every child deserves equal opportunities to succeed and thrive. To break this harmful cycle, we need to focus on prevention rather than punishment. This includes implementing restorative justice practices, promoting a positive school climate, providing mental health support, and ensuring equitable access to education resources. Efforts to address this issue often involve reforming disciplinary practices in schools, providing more resources to disadvantaged communities, and focusing on prevention and early intervention to keep students on

a positive educational path rather than leading them into the criminal justice system (Anyon, et al. 2016). Efforts to address the school-to-prison pipeline involve reforming school discipline policies, implementing restorative justice practices, investing in quality education, and providing comprehensive support services for at-risk students. By creating an inclusive and supportive school environment, we can help break the cycle and give all students the opportunity to thrive academically and personally.

2.1.2. Intellectual disability

Intellectual disability is a universal phenomenon. It occurs, with varying degrees of frequency, in families from all walks of life in both developed and underdeveloped countries. It is one of the most severe sources of great trauma, hardship, and despair to teachers, parents and constitutes economic and social burden to communities. Even the mild forms of intellectual disability pose serious threats to individual self-fulfilment, educational attainments, family security, and national productivity (Cravin, 2016). Daub and Harman (2011) asserted that intellectual disability (ID) is a complex phenomenon and multi-faceted concept which has received a multi-disciplinary concern aimed at exploring the concept. It is an evolving concept and has undergone nominal modifications and revision in its definition and concept. Maroni and Bulking (2010) argue that historically, several terms have been used to describe intellectual disability (ID) and each term is subject to euphemism treadmill (seen as offensive, abusive or derogatory). Such terms include cretin, amentia, idiot, moron, imbecile, mongolism, mental disability, mental retardation and intellectual disability. Persons with intellectual disability have been major targets of social prejudice and discrimination in western societies.

Several authors and associations have published different definitions of intellectual disability and its definition has changed nine times over the past century in the United States. Such changes in nomenclature come about with the acquisition of new knowledge regarding causes and efforts to preserve the dignity of persons with intellectual disability (Harris, 2016). For example, this disability characterized by significant limitations both in intellectual functioning and in adaptive behaviour as expressed in conceptual, social, and practical adaptive skills. This disability originates before age 18 (American Association of Intellectual and Developmental Disability, 2012).

Also, in American Association of Intellectual and Developmental Disability (2012) defined it as characterized by significant limitations in both intellectual functioning and in adaptive behaviours, which covers many everyday social and practical skills. This disability originates before the age of 18. Also, Oyundoyen (2013) defined it as a disability arising from delay in brain development during the developmental period and resulting in significant limitations in intellectual,

social, emotional and behavioral adjustment in the individual so affected. Intellectual disability is not a static disorder, but it is rather a dynamic condition with a variable course that depends on its etiology and the available environmental supports. The severity of the intellectual disability is determined by the discrepancy between the individual's capabilities in learning and in and the expectations of the social environment, (Fey, Warren, Brady, Finestack, Bredin-Oja, Fairchild, Sokol, and Yoder, 2016).

In addition to having sub average intellectual functioning, these children and adolescents must be assessed as having below-average adaptive behaviours. Adaptive behaviours is seen as "the degree to which, and the efficiency with which, the individual meets the standards of maturation, learning, personal independence, and/or social responsibility that are expected for his or her age level and cultural group that is "the collection of conceptual, social, and practical skills that have been learned by people in order to function in their everyday society. Stated another way, it is how well a person copes with the everyday demands and requirements of his or her environment. The idea of context is important for understanding the concept of adaptive behaviours. Because behaviours is strongly influenced by cultural factors, age and situation appropriateness must always be considered within the setting in which it occurs. For example, a teenage girl who uses her fingers while eating might be viewed as exhibiting inappropriate behaviour; however, this behaviours is maladaptive only when considered within the context of Western cultures (Gargiulo and Bouck, 2018).

Some poor adaptive behaviours found in students with intellectual disability are poor self-help skills, low tolerance, low frustration and fatigue levels, and moral judgment commensurate with cognitive functioning. Generally speaking, students with intellectual disability are delayed in terms of social and emotional functioning. They usually exhibit lower levels of self-esteem and a more unfavourable self-concept than their peers without intellectual disability. Because of their negative view of themselves, adolescents with intellectual disability are overly susceptible to negative peer influences. Consequently, they might agree to experiment with foreign substances such as narcotics or to participate in gang-related activities in an attempt to gain peer acceptance (Landreth, 2012).

Perceptual-motor and language functioning also are significantly delayed in children and adolescents with intellectual disability. This below-average functioning particularly affects their ability to participate fully in physical education activities and negatively curtails their ability to communicate socially and interact with students without mild or moderate mental retardation. Most children with intellectual disability manifest some specific learning characteristics such as inability to attend to critical or relevant features of a task, diminished attention span, difficulty ignoring

distracting stimuli. They exhibit deficits in memory correlated with severity of intellectual disability, limitations in ability to selectively process and store information, inefficient rehearsal strategies, difficulty with short-term memory is common recalling directions in sequence presented seconds earlier, long-term retrieval (recalling a telephone number) is similar to that of peers without intellectual disability, history of and a generalized expectancy for failure, learned helplessness, effort is unrewarded; failure is inevitable, exhibit external locus of control belief that outcomes of behavior are the result of circumstances (fate, chance) beyond personal control rather than own efforts, evidence outer-directedness, a loss of confidence and a distrust of own abilities (Glanzman & Sell, 2013).

They are reliant on others for cues and guidance, they have difficulty applying knowledge or skill to new tasks, situations, or settings, problem in using previous experience in novel situations, teachers must explicitly plan for generalization; typically, it does not automatically occur, follow same sequence of language acquisition as typical individuals, albeit at a slower pace. They exhibit a strong correlation between intellectual ability and language development the higher the IQ, the less pervasive the language difficulty, speech disorders (articulation errors, stuttering) more common than in peers without intellectual disability. Their vocabulary is often limited, grammatical structure and sentence complexity are often impaired, generally exhibit difficulties in all academic areas with reading being the weakest, problem solving difficulties in arithmetic, rejection by peers and classmates is common poorinter personal skills, frequently exhibit socially inappropriate or immature behavior difficulty establishing and maintaining friendships, diminished self-esteem coupled with low self-concept (Gargiulo and Metcalf, 2013). From the analysis above it is clear that the is need for every learner to be screened, referred, and assessed with the assessment instrument being culturally sensitive and fair manner for identification and diagnosis of intellectual disability as it is the only way the right counsel will be given them, (American Youth Policy Forum and the Center on Educational Policy, 2012).

Hub (2011) stated that in the United States, about 6.5 million people have an intellectual disability and suggested 200 million worldwide, with more than 5,450,000 children between the ages of 6 and 21 receiving special education services, Students with intellectual disability may require special services to succeed academically. For example, they may receive special education services or classroom adaptations to help them learn.

Classification

As a result of its complex nature, it is classified from different perspectives and disciplines which include the clinical model, educational model, classification based on measured intelligence, and based on needed support (Obii, 2012). The classification as proposed by Diagnostic and

Statistical Manual of Mental Disorders, Fourth Edition (DSM-IVTR), classified intellectual disability as thus:

Code based on degree of severity reflecting level of intellectual impairment:

Mild Mental Retardation: IQ level 50–55 to approximately 70

Moderate Mental Retardation: IQ level 35–40 to 50–55

Severe Mental Retardation: IQ level 20–25 to 35–40

Profound Mental Retardation: IQ level below 20 or 25

Mental Retardation, Severity Unspecified: when there is strong presumption of Mental Retardation but the person's intelligence is untestable by standard tests

From American Psychiatric Association (APA) (2000)

Describing the Severity of Intellectual Disability

Severity	*Conceptual Domain*	*Social Domain*	*Practical Domain*
Mild	Pre-schoolers may show no obvious conceptual differences. School-aged children show difficulties in acquiring academic skills (e.g., reading, writing, arithmetic, telling time, using money). Abstract thinking and planning may be impaired; thinking tends to be concrete.	Communication, conversation, and language are more concrete or immature than the skills of peers. The child may have difficulty accurately understanding the social cues of others. There may be difficulties regulating emotion and behavior compared to peers.	The child may function in an age-expected manner with regard to personal care. In adolescence, assistance may be needed to perform more complex daily living tasks like shopping, cooking, and managing money.
Moderate	Pre-schoolers' language and pre-academic skills develop slowly. School-age children show slow progress in academic skills. Academic skill development is usually at the elementary school level.	The child shows marked differences in social and communicative skills compared to peers. Spoken language is simplistic and concrete. Social judgment and decision making are limited. Friendships with peers are often affected by social or communicative deficits.	The child needs more time and practice learning self-care skills, such as eating, dressing, toileting, and hygiene, than peers. Household skills can be acquired by adolescent with ample practice.
Severe	The child generally has little understanding of written language or numbers. Caretakers must provide extensive support for problem solving throughout life.	There are limited spoken language skills with simplistic vocabulary and grammar. Speech may be single words/phrases. The child understands simple speech and gestures. Relationships	The child needs ongoing support for all activities of daily living: eating, dressing, bathing, elimination. Caregivers must supervise at all times.

		are with family members and other familiar people.	Some youths show challenging behaviors, such as self-injury.
Profound	Conceptual skills generally involve the physical world rather than symbols (e.g., letters, numbers). Some visual-spatial skills, such as matching and sorting, may be acquired with practice. Co-occurring physical problems may greatly limit functioning.	The child has limited understanding of symbolic communication. The child may understand some simple instructions and gestures. Communication is usually through nonverbal, non-symbolic means. Relationships are usually with family members and other familiar people. Co-occurring physical problems may greatly limit functioning.	The child is dependent on others for all aspects of physical care, health, and safety, although he or she may participate in some aspects of self-care. Some youths show challenging behaviours, such as self-injury. Co-occurring physical problems may greatly limit functioning.

Source: Based on *DSM-5*, 2013.

Mild Intellectual Disability (Adaptive Functioning Scores 55–70)

As infants and toddlers, children with mild Intellectual Disability usually appear no different than other children (Jacobson & Mulick, 2016). They achieve most developmental milestones at expected ages, learn basic language, and interact with family members and peers. Their intellectual deficits are usually first identified when they begin school. Teachers may notice that they require more time and practice to master academic skills, such as letter and number recognition, reading, and math. As they progress in school and their schoolwork becomes more challenging, these children fall further behind and may repeat a grade. Some children grow frustrated with traditional education and display behavior problems in class. By middle school, these children master basic reading and math but seldom make further academic progress. After school, they typically blend back into society, perform semiskilled jobs, and live independently in the community. They usually require only occasional support from others to overcome their intellectual deficits. For example, they may need help completing a job application, filing a tax return, or managing their finances.

Moderate Intellectual Disability (Adaptive Functioning Scores 40–55)

Children with moderate Intellectual Disability often show signs of their intellectual and adaptive impairments as infants or toddlers (Jacobson & Mulick, 2016). Their motor skills usually develop in a typical fashion, but parents often notice delays in learning to speak and interacting with others. These children often seem less interested in their surroundings compared to their age mates. They are often first identified as having Intellectual Disability as toddlers or preschoolers, when they

show little or no language development. Instead, they rely mostly on gestures and single word utterances. By the time they begin school, these children usually speak in short, simple phrases and show self-care skills similar to typically developing toddlers. However, they display problems mastering basic reading, writing, and mathematics. By adolescence, these children are able to communicate effectively with others, have basic self-care skills, and have simple reading and writing abilities. They may continue to have trouble with reading a newspaper, performing arithmetic, or handling money. As adults, some may perform unskilled jobs if they are given training and supervision. They usually live with family members or in residential care facilities.

Severe Intellectual Disability (Adaptive Functioning Scores 25–40)

Children with severe Intellectual Disability are usually first identified in infancy (Jacobson & Mulick, 2016). They almost always show early delays in basic developmental milestones, such as sitting up and walking. They also usually show one or more biological anomalies that are indicative of a genetic or medical disorder. These children often have health problems, are at risk for long-term motor disorders, or have seizures. They require ample supervision from parents and caregivers. By the time they begin school, they may be able to move on their own and perform some basic self-care skills, such as feeding, dressing, and using the toilet. They may communicate using single words and gestures. As adults, their speech continues to be limited and difficult to understand, although their ability to understand others is often better developed. They are usually unable to read or write, but they may be able to perform simple daily living tasks under close supervision. They typically live with family or in residential care.

Profound Intellectual Disability (Adaptive Functioning Scores <25)

Children with profound Intellectual Disability are first identified in infancy (Jacobson & Mulick, 2016). They almost always show multiple biological anomalies and health problems indicative of neurological damage. By the time they reach school age, their skills are similar to those of typically developing one-year-olds. They may be able to sit up, imitate sounds, understand simple commands, and recognize familiar people. About half of the children with profound Intellectual Disability will continue to require help from others throughout their lives. The other half will show slow development of adaptive skills. They may learn to walk, develop some communication skills, and be able to perform some self-care activities. As adults, they usually continue to require constant support and supervision from family and caregivers. They may also show chronic medical problems and sensory impairments.

The diagnosis of Intellectual Disability is determined by the child's intelligence and adaptive functioning. Two people can show Intellectual Disability but look and act very differently. For example, one person might be a child with Down Syndrome. Another child with the same IQ might have no identifiable cause of their impairments. The label "Intellectual Disability" tells us only about a person's general intellectual and adaptive functioning; the diagnosis says nothing about etiology, symptoms, course, or outcomes (Baumeister & Bacharach, 2020).

Etiology

Both aetiological factors associated with ID and comorbid physical or psychological conditions are discussed in detail in other sections of the book. In most cases the aetiology for ID is unknown. Genetic or physical disorders associated with the antenatal, perinatal and postnatal periods are equally responsible for almost 50 % of cases where a cause can be identified (Maulik et al., 2011). Down's syndrome is the most common genetic condition associated with ID, but other causes like brain trauma during delivery, birth asphyxia, intrauterine growth retardation, infections affecting the nervous system, hypothyroidism and iodine deficiency and lead poisoning are also commonly known to cause ID. Harris (2016) reports that hearing impairment is present in 10 % of people with intellectual disability and that seizure disorder is present in less than 5 % to almost 30 % of people with intellectual disability, depending on the level of severity of mental retardation. Similarly, psychological problems are more than 4–5 times more prevalent in people with intellectual disability than in the general population. People with intellectual disability have psychological problems similar to those found in the general population, such as affective disorders, psychotic disorders, addiction disorders and other developmental disorders.

Behavioural problems are also manifested more frequently in people with intellectual disability. A major problem of identifying physical andmore importantly psychological problems in people with intellectual disability is correctly ascertaining the symptoms and diagnosing the conditions. Given the inability of some people withintellectual disability to express their distress—especially those with more severe forms of intellectual disability—proper diagnosis becomes critically important. The lack of trained personnel to facilitate that process adds to the problem.

Environmental factors such as exposure to toxic substances (e.g., prenatal alcohol exposure, prenatal or postnatal lead exposure), nutritional deficiencies (e.g., prenatal iodine deficiency), brain radiation, childhood brain infections, traumatic brain injury, and maternal infections (e.g., rubella, cytomegalovirus) can lead to intellectual disabilities (APA, 2013). Additionally, prenatal and postnatal complications—e.g., complications of prematurity such as hypoxemia and periventricular hemorrhage—may cause brain injury resulting in intellectual disabilities.

Genetic factors play a major role in intellectual disabilities. Different genetic causes may lead to intellectual disabilities. Down syndrome (trisomy 21) is the most common genetic cause of intellectual disabilities in the United States, occurring approximately once every 700 live births (Parker, Mai, Canfield, Rickard, Wang, Meyer, 2010). Fragile X syndrome is the most commonly known inherited cause of intellectual disabilities, and it affects approximately 1 per 5,000 males (Coffee, Keith, Albizua, Malone, Jowrey, Sherman, Warren, 2009). Many cases of intellectual disabilities in the population are of unknown etiology. Because of the varied causes and consequences of intellectual disabilities, an initial evaluation should address intellectual and life skills, the identification of genetic and nongenetic etiologies, and the diagnosis of conditions that need treatment (e.g., epilepsy and phenylketonuria). Prenatal and perinatal medical histories, a physical examination, genetic evaluations, and metabolic screening and neuroimaging assessment may aid in the determination of characteristics that may influence the course of the disorder (Parker *et al.*, 2010).

Epidemiology of intellectual disability

Prevalence

This section examines the epidemiology of ID using population-based data. King et al. (2009) found that the prevalence of intellectual disability varies between 1 and 3 % and identified some rea-sons for this variation. First, ID as determined using only IQ levels shows 3 % prevalence, but prevalence decreases when adaptive behaviours are also used for diagnosis. Second, a 3 % prevalence is plausible if the correlation between IQ and age is constant. However, for some medical conditions, IQ level changes with age. For example, the IQ of a person with Down's syndrome tends to be highest in the first year of life and then decreases through early and middle school years, whereas those with Fragile X syndrome start to show a decline at early adolescence—10–15 years (King et al., 2009). IQ level also varies as an individual grows and learns different adaptive skills. The third reason for variation in the prevalence of intellectual disability is that rates of ID depend on the criteria used to define ID, which are based on school and local administrative policies. Different schools send their students for evaluation based on their own policies, resulting in different prevalence levels across a varied age group. The most common age of identification is 10 years.

Poverty and poorer socio-economic conditions are associated with greater likelihood of having intellectual disability, especially during antenatal and early childhood development, and variation in levels of socio-economic resources among different populations may explain many differences in prevalence of ID in those populations. Other factors related to the variance of ID prevalence are

probably related to administrative policies. Administrative policies that seek to reduce stigmatization may lead to over-identification of learning disorders in children with mild to moderate levels of IQ, who might otherwise be diagnosed with intellectual disability. Recent analysis(Boyle et al., 2011) of the National Health Interview Survey (NHIS) data from children aged 3–17 years in the United States showed thatprevalence of learning disorders increased by

5.5 % while the diagnosis of intellectual disability reduced by 1.5 % between the 1997–1999 and the 2006–2008 waves of the NHIS. Finally, the mortality rate varies across different groups of individuals with ID. Those with more severe forms of ID have lower life expectancies, which leads to variation in prevalence rates.

There have been many surveys to ascertain the prevalence of ID across the world with estimates ranging from 1% to 3% (Harris, 2016). A recent meta-analysis concluded that the average prevalence of intellectual disability across all the studies is 1%. Prevalence is higher in males in both adult and child and adolescent populations. Among adults, the female-to-male ratio varies between 0.7:1 and 0.9:1, while in children and adolescents it ranges between 0.4:1 and 1:1. Rates vary according to income; the highest prevalence occurs in low and middle-income countries where rates are almost twice those in high income countries (Maulik et al, 2011). Another meta-analysis, which considered studies published between 1980 and 2009 in European countries, found overall estimates ranging from 0.4% and 1.4% (Wittchen et al, 2011). The prevalence of ID across Asia is broadly consistent with estimates in western countries: 0.06%-1.3% (Jeevanandam, 2019). The most recent Chinese national survey on disability, conducted in 2006, estimated a prevalence of ID of 0.75%. Prevalence in urban areas was lower (0.4%) than in rural areas (1.02%) (Kwok et al, 2011)

Status of Nigerian Data on Intellectual Disabilities

Nigeria has a number of serious domestic challenges in its governance and economic health. Not surprisingly, the data collection capacity of the national statistical agencies has been seriously impaired (International Monetary Fund, 2013). Basic health statistics for the general population are limited and, when available, often challenged for their accuracy (Kadiri & Osafo-Kwaako, 2017). National data on intellectual disability is unavailable. Comprehensive epidemiological studies on the prevalence of intellectual disabilities in Nigeria are scarce. The existing studies are often localized and vary significantly in their findings due to differences in definitions, diagnostic criteria, and methodologies. This lack of consistent data makes it challenging to estimate the true prevalence of intellectual disabilities at a national level. Furthermore, intellectual disabilities are frequently underreported and misdiagnosed in Nigeria due to a combination of cultural factors, stigma, and

limited access to professional diagnostic services (Eseigbe & Ofovwe, 2017). Many children with intellectual disabilities are not formally identified or diagnosed, leading to an underestimation of the prevalence rates in official statistics. Available data suggest that intellectual disabilities are more prevalent in rural areas and among lower socioeconomic groups. However, there is a paucity of detailed demographic data that can provide insights into how factors such as gender, ethnicity, and geographical location influence the prevalence and experience of intellectual disabilities.

According to Adebayo and Oyewole (2021), the Nigerian health and education systems are not fully equipped to identify and support individuals with intellectual disabilities. There is a lack of standardized screening and diagnostic tools, as well as insufficient training for healthcare and educational professionals in recognizing and managing intellectual disabilities. Data on intellectual disabilities are collected by various entities, including government agencies, non-governmental organizations (NGOs), and academic researchers. However, these efforts are often fragmented and uncoordinated, leading to inconsistencies and gaps in the data. There is a need for a centralized database that consolidates information from different sources to provide a comprehensive overview of intellectual disabilities in Nigeria.

Cultural beliefs and social stigma surrounding intellectual disabilities contribute to the reluctance of families to seek diagnosis and support for their children. This not only affects the accuracy of data but also limits the effectiveness of interventions aimed at improving the lives of individuals with intellectual disabilities (Oluwaseun & Oyedeji, 2020). The policy framework for addressing intellectual disabilities in Nigeria is underdeveloped. While there are some policies and laws in place, such as the National Policy on Special Needs Education, their implementation is often hampered by a lack of reliable data and resources. This limits the government's ability to plan and deliver effective services and support for individuals with intellectual disabilities. Resource allocation for services and support for individuals with intellectual disabilities is inadequate. This is partly due to the lack of reliable data to justify and guide investments in this area. Consequently, many individuals with intellectual disabilities do not receive the necessary medical, educational, and social support.

Similarly, academic research on intellectual disabilities in Nigeria is limited. There are few comprehensive studies that explore the causes, prevalence, and outcomes of intellectual disabilities, as well as the effectiveness of various interventions. Increased funding and support for research are needed to generate evidence-based data that can inform policy and practice. Most available data and research on intellectual disabilities are based on studies conducted in high-income countries

(Ojewale, & Akinpelu, 2019). There is a need for localized research that considers the unique cultural, social, and economic contexts of Nigeria. This can help in developing interventions that are culturally relevant and effective in the Nigerian context.

The status of data on intellectual disabilities in Nigeria is characterized by significant gaps and challenges. The limited epidemiological studies, fragmented data collection efforts, and inadequate policy framework hinder the ability to accurately estimate the prevalence of intellectual disabilities and develop effective interventions (Ogunrin & Adeyemi, 2018). Addressing these challenges requires a coordinated effort to improve data collection, increase funding for research, and enhance the capacity of health and education systems to support individuals with intellectual disabilities. By strengthening the data infrastructure, Nigeria can better understand the needs of this population and implement strategies to improve their quality of life and societal inclusion.

2.1.3. Mental health disorders in intellectual disability

There is a growing recognition over the last 25 years that adults with intellectual disability (ID) are vulnerable to mental health problems due to particular biological, psychological and social factors. Individuals with developmental disabilities can present with signs and symptoms of mental health and addiction disorders that follow DSM IV-TR criteria quite closely but may often present with a range of atypical symptoms, including aggression, that may require the clinician to have a broader understanding of diagnostic equivalents (Herbert, 2021). This section provides a discussion of the similarities and differences in symptom presentation for the most common psychiatric disorders in people with a developmental disability. A variety of terms are used to describe mental health problems: mental illness, serious emotional disorder, extreme emotional distress, psychiatric illness, mental illness, nervous exhaustion, mental breakdown, nervous breakdown and burnout. Slang terms include crazy, psycho, mad, loony, nuts, cracked up and wacko. These terms promote stigmatising attitudes and should not be used. These terms do not give much information about what the person is really experiencing.

A mental disorder or mental illness is a diagnosable illness that affects a person's thinking, emotional state and behaviour, and disrupts the person's ability to work and carry out other daily activities and engage in satisfying personal relationships. There are different types of mental illnesses some of which are common, such as depression and anxiety disorders, and some which are not so common, such as schizophrenia and bipolar disorder. However, mental illnesses, as with any

health problem, cause disability, which is sometimes severe. This is not always well understood by people who have never experienced a mental illness. Mental Illness is a disorder that affects feelings and behaviour. Few mental illnesses can be prevented; nearly all can be successfully managed and treated. 25% of all people develop mental or behavioural disorders at some stage in life (Olson, 2022). The causes of mental illness are complex and influenced by a person's heredity (genes), stressful life experiences, difficult family background, physical illnesses, etc. People with mental health problems often have difficulties in coping with the pressures of daily life and can lose their jobs, their benefits, their parental rights, and their basic human rights.

Intellectual disability, or 'mental retardation' as it is described in ICD-10 APA, 1994) and the Diagnostic and Statistical Manual – IV revision text review (DSM-IV-TR) is not a psychiatric illness, despite being part of the psychiatric classification system. The quoted prevalence of psychiatric illness among adults with intellectual disability varies widely between 10% and 39% (Corbett, 2019). This fourfold discrepancy in the quoted prevalence rate is caused by methodological difficulties, particularly in the areas of sampling error and case ascertainment. Up until recently, most prevalence studies of psychiatric illness among adults with intellectual disability included primarily people from institutions or from a clinic population, therefore causing sampling bias. Case ascertainment has also been a problem because of the difficulty of detecting adults with mild intellectual disability in the population. Many studies were based on case-notes scrutiny. Direct patient interviews were seldom used. Even where direct patient interviews were used, these often depended on screening instruments such as the Psychopathology Instrument for Mentally Retarded Adults (PIMRA), Reiss Scale, Mini-Psychiatric Assessment Schedule for Adults with Developmental Disabilities (Mini-PAS-ADD), and PAS-ADD checklist (Moss *et al,* 2008), therefore increasing the chance of detecting a higher rate of psychiatric illness in the study population.

Some studies, however, used direct patient interviews using instruments such as PAS-ADD or Medical Research Council-Handicap and Behaviour Schedule (MRCHBS) and made psychiatric diagnosis according to the DSM-III (APA, 2013) criteria. The difficulty of diagnosing psychiatric illness using these criteria in adults who have severe and profound intellectual disability is well known. Some authors included personality disorder, behavioural disorders, autism, attention deficit hyperactivity disorder (ADHD), Rett syndrome, dementia, and pica in their overall diagnosis of psychiatric illness. This caused wide discrepancy in the quoted prevalence rate. It appears that if diagnosis like behavioural disorder, personality disorders, autism, and ADHD are excluded, the

overall rate of psychiatric illness in adults with intellectual disability does not differ significantly from that in the non-intellectually disabled general population, (Deb et al, 2011). Compared with the general population, there seems to be a higher rate of schizophrenia among adults who have mild to moderate intellectual disability (Deb et al, 2011). However, if behaviour disorders are included within psychiatric diagnosis, the rate of psychiatric illness seems significantly more prevalent among adults with intellectual disability compared with the general population. Whether or not behavioural disorders are included in the overall diagnosis of psychiatric illness, behavioural problems are common causes for psychiatric referrals.

It is worth remembering that in diagnosing psychiatric illness, it is important to differentiate which symptoms could be part of such an illness, and which can be explained by the intellectual disability. Signs and symptoms (which are common in psychiatric illness) – such as social withdrawal, excessive agitation, lack of concentration, stereotyped movement disorders, abnormal sleep, and certain other behaviours – can be the expression of underlying brain damage rather than symptoms of an illness ('diagnostic overshadowing; Reiss, Levitan, & Zyszko, 2013).

Prevalence of mental health problems in intellectual disability

People with an intellectual disability suffer from the same types of mental health problems as those without such disabilities. Prevalence rates of mental health problems are generally higher for people with intellectual disability than for the general population, suggesting that they are a particularly vulnerable group.8-10 Some disorders may be more or less likely and may also present in a different way than in the general population. Prevalence rates for people with intellectual disability and mental health problems have been placed between 10% and 74%8-10 (Reiss & Sysko, 2013).

This large variation is a result of the different ways studies have been conducted. In Australia in 2003 according to Australian Bureau of Statistics data 57% of people with an intellectual disability under the age of 65 years also has a 'psychiatric disability (Edert, 2020).

Difficulties of diagnosis

Assessment of mental illness in those with a mild intellectual disability may be similar to the general population. However, there may be greater reliance on others for information. The presence of intellectual disability poses particular difficulties when it comes to diagnosing a mental illness. There are several reasons for this:

- The person with intellectual disability is often unable to express symptoms that a clinician looks for when diagnosing a mental illness

- Mental health workers may attribute all forms of behaviour difficulties to the person's intellectual disability and fail to consider that the behaviours may be a symptom of mental illness (Beccker, et al 2015)
- Unusual or infrequent presentation of symptoms in the intellectually disabled population
- Medications being taken for physical or behavioural issues may mask the presence of mental health symptoms
- Historical information which may deal with previous diagnosis is sometimes inconsistent or missing. This may make it difficult to determine if there has been a change over time.

The relationship between intellectual disability & mental health problems

In the past, the difference between intellectual disability and mental illness was not well understood. People with intellectual disability were accommodated in the same institutions as those with serious mental illness. It is now understood that the two are quite separate conditions. It is however possible for a person with intellectual disability to have a mental illness as well. People with intellectual disability (as is true for most of us) can experience emotional crises because of mental health problems or as learned ways of coping with situations they find difficult (challenging behaviour). Challenging behaviour and mental health problems may exist at the same time. Individuals may also continue to display their usual challenging behaviour in addition to other behaviour indicative of a mental illness (Hughurt, 2014).

Factors contributing to mental health problems in people with intellectual disability

It is only recently that there has been recognition that people with intellectual disability can develop the same mental health problems as the general population and that prevalence rates of mental illness are higher for intellectual disability. As for the general population a combination of biological, psychological and social factors can lead to the development of mental health problems. People with an intellectual disability tend to be more vulnerable to these factors as outlined in the table 1 below.

Table 1: Factors contributing to mental health problems in people with intellectual disability

Biological	Psychological	Social
Brain damage Not all people with intellectual disability have brain damage. For those who do, this can cause structural and psychological changes to the way the brain	**Self-worth** Society values achievements such as high social status, independence, employment, relationships and family. People with intellectual disability may have difficulty attaining these,	**Living in inappropriate environments** People with intellectual disabilities often live in accommodation where they are isolated from their families and community. In such

functions, increasing vulnerability.	which may affect their self-esteem.	settings they may have little choice and control over their lives. Such environments may provide too little or too much activity or stimulation.

Table 1 continues

Biological	**Psychological**	**Social**
Sensory impairments Sensory impairment can create a barrier to social integration and lead to disablement and problems with self-image.	**Self-image** People with intellectual disability may feel they are different to other people due to either their cognitive or physical disabilities or may feel inferior to others because of their reliance on the support of others. Poor self-image can contribute to mental health problems.	**Exposure to adverse life events** People with intellectual disability are more likely to have been exposed to abuse, trauma, rejection, harassment and exploitation. They are often unaware of or do not understand their rights.
Genetic conditions People with intellectual disability are at a significantly higher risk of mental health problems associated with a number of syndromes e.g. Prader-Willi Syndrome, Rett Syndrome, William's Syndrome, Fragile X Syndrome	**Poor coping mechanisms** People with intellectual disability find it more difficult to plan ahead, consider the consequences of their behaviour or tolerate/manage their frustration and anger. This can result in greater discrimination by others.	**Expectations of others** Low expectations by others of people with intellectual disability can lead to reduced opportunities for participation and the chance to develop skills and confidence.
Medication Side effects of psychotropic medication, particularly when the person is receiving two or more, need to be considered, as these can contribute to mental health problems.	**Bereavement and loss** People with intellectual disability often do not receive the support they require to cope with these stressors. They may not even be told about what has happened. Loss can include siblings leaving home, staff leaving or other clients moving on.	**Family** Some family members can be overprotective, reducing opportunities and leading to over-dependence. Caring for a person with a disability may also put increased pressure on a family leading to increased stress which can affect the family's relationship with the person.

Table 1 continues

Biological	Psychological	Social
Epilepsy Approximately a third of people with intellectual disability have epilepsy, which for some may be associated with mental health problems. Epilepsy can provoke anxiety in a person, which may lead to them avoiding going out & becoming isolated.	**Difficulty expressing emotions** People with intellectual disability often have trouble expressing their inner thoughts and feelings. They find it difficult to put subtle & abstract emotions into words.	**Reduced social networks** People with intellectual disability often have smaller friendship groups. They may lack the skills required to develop relationships and broaden social networks. Others may develop abusive relationships or mix with inappropriate peers in an attempt to fit in.
	History and expectation of failing. People with intellectual disability are often not given opportunities to achieve, so they develop low expectations. Frequent failure may lead them to develop leaned helplessness, which can lead to a lack of motivation and poor goal setting.	**Economic disadvantage.** Financial and related disadvantages common for people with intellectual disability can contribute to the person's vulnerability to mental health problems.

Source: *Association of Intellectual Disability and Mental Disorders 2018*

Presentation of mental health problems in intellectual disability

The presentation of mental health problems in individuals with intellectual disabilities is influenced by several factors, including the cause of the disability, the level of disability and functioning (which encompasses communication, social, and physical abilities), personality, typical behavioral patterns, cultural background, and environmental factors.

Individuals with mild intellectual disabilities and/or adequate verbal communication skills tend to exhibit symptoms similar to those seen in the general population. In contrast, those with more severe intellectual disabilities and limited verbal communication are more likely to express mental health issues through behavioral changes, often described as challenging behaviors. For clarity, throughout this manual, the term "behavior" is used to describe potential signs and symptoms of a mental health problem, which may include thoughts and feelings (Comer, 2019).

When considering whether a person with an intellectual disability may have a co-existing mental health problem, it is useful to ask the following questions: Is the person exhibiting behaviors that differ from their usual patterns, such as changes in sleeping and eating habits, posture, or movement? Are these behavioral changes consistent across various settings? Does the person seem to experience emotional reactions, such as anxiety or elation, that are disproportionate to the situation? Do they interact with or talk to someone who is not there, or show signs of being influenced by unseen forces? Has there been a noticeable change in the person's mood or level of motivation? Has there been a reduction in the person's abilities, such as social skills, daily living tasks, work-related skills, leisure activities, or preferred routines? Is the person engaging in behaviors that are dangerous to themselves or others?

These changes could be attributed to various causes, so it is essential to first rule out medical or physical conditions that might be triggering the concerning behaviors (Hughurt, 2014). Common physical ailments, such as bowel conditions and ear infections, can often be mistaken for symptoms of a mental health condition. Accurately determining whether a person with an intellectual disability has a mental illness requires the expertise of a skilled professional. This evaluation would consider the nature of the reported behaviors, recent changes, mood shifts, communication abilities, alterations in sleep, appetite, and weight, as well as the person's current living, social, educational, and vocational environments.

When data is gathered regarding any of these factors, it is crucial to present it during the consultation with the professional (Adno & Yveert, 2018). It may take multiple consultations for a definitive diagnosis to be made. Among the mental health problems that people with intellectual disabilities may face is depression. The term "depression" is often used in various contexts, but everyday sadness or the "blues" should not be confused with a depressive disorder. People experiencing the "blues" may feel down for a short period but typically recover without the need for treatment (Ober & Kanert, 2012). However, the type of depression discussed here is major depressive disorder, a mood disorder characterized by at least two weeks of symptoms that significantly impair a person's ability to function in daily activities and maintain relationships.

Mood disorders affect 6.2% of Australians aged 16-85 years each year, with major depressive disorder being the most common, affecting 4.1% of the population annually. The prevalence is higher in females (5.1%) than in males (3.1%), with the median age of onset being 25 years (Babr & Junta, 2011). Depression often co-occurs with anxiety and substance use disorders.

Depression is particularly prevalent among individuals with intellectual disabilities, with reported rates between 1.3% and 3.7% (Ober & Kanert, 2012). These figures may be underestimates due to diagnostic challenges in this population, especially given common communication deficits. Some estimates suggest that up to 40-50% of individuals with intellectual disabilities may experience depression. The condition is also more common in females and is often recurrent. ICD-10 criteria require symptoms to be present for at least two weeks for a diagnosis, with severity determined by the number of symptoms present. In cases of mild to moderate intellectual disability, individuals may be able to articulate their symptoms, allowing for a diagnosis according to established criteria, such as those in ICD-10 or the DC-LD (Royal College of Psychiatrists, 2001). However, atypical presentations, such as prominent somatic complaints, can occur. It is important to rule out other causes of depression, such as physical illness, medication side effects (particularly from neuroleptics), and environmental factors like ongoing conflicts with others. Dementia can also present similarly to depression in its early stages.

The signs and symptoms of major depressive disorder include a persistently sad mood, loss of interest in previously enjoyable activities, lack of energy, feelings of worthlessness or guilt, frequent thoughts of death or suicide, difficulty concentrating, agitation or slowed movements, sleep disturbances, and changes in appetite and weight. For individuals with intellectual disabilities, additional indicators of depression may include increased tearfulness, deterioration in social and self-care skills, irritability, aggression, self-injurious behavior, property damage, decreased appetite, severe sleep disturbances, weight loss, total social withdrawal, unwillingness to use speech, and slowness in thought and movement (Kala, 2017).

It is important to note that some symptoms of depression may be part of the usual presentation for a person with an intellectual disability, making it challenging to identify depression. The person may have been depressed for a long time without it being recognized (Eldert, 2021). Therefore, assumptions should not be made, such as dismissing behaviors as simply part of the individual's character. Identifying recent negative life experiences, such as loss, abuse, illness, or relocation, can provide context for the depressive symptoms. Additionally, the side effects of any medication should be considered (Royal College of Psychiatrists, 2001).

People with intellectual disabilities may have difficulty articulating their feelings, and some may not even recognize that they are depressed, particularly if they have been feeling this way for an extended period. In those with moderate or mild intellectual disabilities, the person may be able to describe their symptoms. However, for individuals with more severe disabilities, it is often

necessary to rely more heavily on observations of behavioral changes and reports from family members and direct care providers.

The following table outlines the signs and symptoms of a major depressive episode in the general population and their equivalents in individuals with intellectual disabilities (Royal College of Psychiatrists, 2001). Mental health problems may be suspected when these features represent a change from the person's usual presentation.

Table 2: Signs and symptoms of comorbidity of intellectual disability and mental health conditions

Signs and Symptoms in the General Population	**Intellectual Disability Equivalents**
1. Depressed or irritable mood	Apathetic, sad or angry facial expression; lack of emotional reactivity;upset; crying; tantrums; verbal and physical aggression that don't match the situation
2. Markedly diminished interestor pleasure in most activities	Withdrawal; loss of interest in usual reinforcers (rewarding activities);refusal to participate in favoured leisure activities or work; change in ability to watch TV or listen to music, unable to be cheered up
3. Significant weight loss; decrease or increase inappetite	Tantrums at meals; refusal to eat or lack of interest in food, stealingfood; refusing activities; hoarding food in room
4. Difficulty sleeping or sleepingtoo much	May or may not be able to self-report sleep problems; if living with others or in a staffed situation, others/staff may report going to bed quite late; any change in sleeping habits; difficulty going to sleep; being up during the night; difficulty waking or waking very early; frequent day time napping; tantrums or activity during sleeping hours;noted sleeping or napping during the day
5. Rapid or slowed thought andmovement	Pacing, hyperactivity, restlessness or being fidgety, decreased energy,passivity; development of obsessional slowness in activities of daily living; increase or decrease in vocalizations or speech, muteness; whispering; monosyllables; increase in self-injurious behaviour or aggression that don't match the situation.
6. Fatigue or loss of energy	Appears tired, tiring quickly; refuses leisure activities or work, withdraws to room; loss of daily living skills; refusal to perform personalcare tasks; incontinence due to lack of energy/motivation to go to the bathroom; work production decrease; lack of interest in joining activities; just watches TV; sitting for long periods of time.

Table 2 continues

Clinical Criteria	Intellectual Disability Equivalents
7. Feelings of worthlessness	Statements such as "I'm stupid", "I'm bad", "I'm not normal", "nobodylikes me", seeming to seek punishment blaming themselves. If someone is nonverbal or has difficulty communicating verbally to express their displeasure frustration or depression they are left with little else but to express this through often aggressive or self-harm behaviours.[37]
8. Diminished ability to think or concentrate	Poor performance at work; change in leisure habits and hobbies; appearing distracted, decrease in completion of tasks; needing moreinstruction or support to complete tasks; loss of previously mastered skills; decrease in IQ upon testing.
9. Recurrent thoughts of death; suicidal behaviour or statements	Preoccupation with the deaths of family members and friends; preoccupation with funerals; fascination with violent TV shows/movies;spontaneous comments about death; talking about committing suicide;
	Other symptoms may include excessive need for reassurance, unresponsiveness to preferred staff, complaints of unspecific achesand pains.

Source: *Tsallam and El bubah (2017)*

Treatments available for depressive disorders

Most individuals recover from depression and go on to lead satisfying and productive lives. There are various treatments available for depression, as noted by the Royal College of Psychiatrists (2001). Many of these treatments have been applied to individuals with intellectual disabilities who also suffer from depression. However, aside from Cognitive Behavioural Therapy (CBT) and the more commonly prescribed medications, there is limited research supporting the effectiveness of other treatments for this population.

Psychological Therapies

There is strong evidence supporting the efficacy of certain psychological therapies in treating depression. Cognitive Behavioural Therapy (CBT), for example, is based on the concept that our thoughts influence our emotions. When individuals become depressed, they tend to think negatively

about most aspects of their lives (Foit & Sadig, 2009). They may feel hopeless about their situation, helpless in their ability to change it, and maintain a negative outlook on themselves, the world, and the future. CBT assists individuals in recognizing these unhelpful thoughts and replacing them with more realistic ones. Additionally, it encourages changes in depressive behaviors by helping individuals schedule regular and pleasurable activities. CBT may also incorporate stress management, relaxation techniques, and sleep management. The extent to which CBT needs to be adapted, and its benefits, depends on the individual's level of intellectual disability, the specific problem being addressed, and the therapist's understanding of intellectual disabilities (Royal College of Psychiatrists, 2001).

Interpersonal psychotherapy is another effective approach that helps individuals resolve conflicts with others, manage grief, or cope with changes in their relationships. This therapy aims to improve interpersonal relationships, which can alleviate depression. Marital therapy, on the other hand, is beneficial when relationship problems coexist with depression, focusing on enhancing the relationship between the depressed individual and their partner.

Problem-solving therapy involves working with a therapist to clearly identify problems, explore possible solutions, choose the best course of action, develop and implement a plan, and assess whether the problem has been resolved. Some individuals with intellectual disabilities may have deficits in problem-solving skills, so the teaching and practice of these skills often occur as part of everyday life. Research indicates that the combination of psychological therapy and antidepressant medication can lead to even better outcomes (Weifer, 2008; Gultin & Dadu, 2019).

Medical Treatments

The following medical treatments are known to be effective in treating depression. Antidepressant medications are particularly effective for adults with moderate to severe depression. Electroconvulsive therapy (ECT) can also be beneficial for individuals with severe depression that has not responded to other treatments. However, ECT can have negative side effects, such as memory loss, and is subject to strict regulations. For instance, in some countries, if an individual cannot provide consent, the matter must be referred to a Mental Health Review Tribunal. Antipsychotic medications are used primarily to treat bipolar disorder but may also be combined with antidepressants to treat major depression when other treatments have failed.

Psychosis

Psychosis is a general term describing a mental health condition in which an individual loses some contact with reality (Gultin & Dadu, 2019). This condition involves severe disturbances in thinking, emotion, and behavior, which can severely disrupt a person's life. Relationships, work, daily activities, and self-care may become difficult to initiate or maintain. Psychotic disorders, though less common than other mental illnesses, can be extremely debilitating. Disorders in which psychosis may occur include schizophrenia, psychotic depression, bipolar disorder (which can involve psychotic depression or psychotic mania), schizoaffective disorder, and drug-induced psychosis.

Psychosis typically occurs in episodes, which can vary in length from person to person. These episodes often involve several phases:

- Premorbid (At Risk Phase): The individual does not experience any symptoms but has risk factors for developing psychosis.
- Prodromal (Becoming Unwell Phase): The individual begins to experience changes in emotions, motivation, thinking, perception, or behavior.
- Acute (Psychotic Phase): The individual exhibits psychotic symptoms such as delusions, hallucinations, disorganized thinking, and a reduced ability to maintain social relationships, work, or study.
- Recovery: The individual undergoes a process to regain a level of well-being.
- Relapse: The individual may experience only one episode in their life or may have recurring episodes (Weifer, 2008).

Common Signs and Symptoms of Developing Psychosis

The early stages of psychosis may involve subtle changes that, when considered together, suggest something is amiss. Changes in emotion and motivation may include depression, anxiety, irritability, suspiciousness, blunted or inappropriate emotions, changes in appetite, and reduced energy and motivation. Changes in thinking and perception might involve difficulties with concentration, a sense of altered self or world, odd ideas, or unusual perceptual experiences (e.g., altered sense of smell, sound, or color). Behavioral changes may include sleep disturbances, social isolation, or a reduced ability to perform work or social roles.

Although these signs and symptoms may not seem significant on their own, they should not be ignored or dismissed, even if they appear gradually and are unclear. It is important not to assume that the individual is simply going through a phase, misusing substances, or that the symptoms will

resolve on their own. The presentation of psychosis can vary significantly between individuals and may change over time. Additionally, it is crucial to consider the cultural and spiritual context of the individual's behaviors. For instance, in some Aboriginal communities, experiences such as being visited by spirits or hearing the voices of deceased loved ones are considered normal (Cinata & Zigh, 2019).

Early stages of psychosis often go undiagnosed for a year or more before appropriate treatment is received. A major reason for this is that psychosis often begins in late adolescence or early adulthood, and the early signs and symptoms involve behaviors and emotions that are common in this age group. Diagnosing a psychotic disorder in individuals with severe intellectual disabilities or significant communication difficulties is particularly challenging, as it largely depends on the individual's ability to describe their internal experiences. Many young people may exhibit some of these symptoms without ever developing a psychotic disorder, while others with these symptoms may eventually be diagnosed with one of the various psychotic disorders.

Types of psychotic disorders

Schizophrenia

Schizophrenia is a disorder in which psychosis is a prominent feature. Contrary to common misconceptions, schizophrenia does not mean "split personality." The term originates from the Greek for "fractured mind," reflecting the disorder's impact on mental functions, leading to disordered thoughts and perceptions (Olsen & Itinert, 2018).

The major symptoms of schizophrenia include delusions, which are false beliefs such as feeling persecuted, experiencing guilt, believing in a special mission, or feeling controlled by external forces. While these delusions might seem bizarre to others, they are very real to the individual experiencing them. In individuals with intellectual disabilities, delusions are often less bizarre and are typically expressed through behavior rather than verbal statements. For instance, a person might display new avoidance behaviors or fears, irrational beliefs not previously expressed, bizarre accusations, glaring with intense anger at strangers or once-favored individuals, or sudden refusal of medication. Delusions involving external control should be approached with caution, as individuals with intellectual disabilities may indeed experience increased external control in their lives.

Hallucinations, another major symptom, involve false perceptions that can affect any of the senses. While auditory hallucinations are the most common, individuals may also experience visual, tactile,

gustatory, or olfactory hallucinations (Common & Pulin, 2019). These hallucinations are perceived as very real by the individual but are not actually present, and they can be quite frightening, especially if they involve negative comments. People with schizophrenia may experience multiple voices or a variety of hallucinations and might not be aware of their illness due to the intensity of their experiences. In individuals with intellectual disabilities, hallucinations may be expressed in ways consistent with their developmental and communication abilities and may be influenced by their limited life experiences. Behaviors suggesting hallucinations include talking to non-existent people, reacting to unheard voices, reporting conversations others cannot hear, or engaging in actions such as sniffing the air or shadow boxing. It is important to differentiate between hallucinations and other conditions or actual realities for individuals with intellectual disabilities. For instance, perceived mistreatment might stem from a limited cognitive and social understanding or reported stares might be related to their appearance. Fantasy thinking could also be attributed to conditions such as autism rather than psychosis.

Thinking difficulties in schizophrenia may involve problems with concentration, memory, and planning, complicating reasoning, communication, and daily tasks. Individuals may also exhibit a loss of drive, characterized by a lack of motivation, including for self-care, which should not be confused with laziness. Blunted emotions, another symptom, manifest as reduced or inappropriate emotional responses, such as speaking in a monotone voice or showing a lack of facial expressions or gestures. Social withdrawal is also common, where individuals may isolate themselves from others, including family and friends, due to factors like diminished motivation, delusions causing fear, difficulty maintaining conversations, and decreased social skills (Hug, 2014).

Additional symptoms in individuals with intellectual disabilities may include deterioration of language skills or a decrease in language use, the sudden appearance of unusual mannerisms or prolonged immobility, general skill deterioration, a lack of emotional expression, the ineffectiveness of previously reinforcing rewards, and aggressive behavior, which often arises in response to distressing thoughts and feelings (Gultin & Dadu, 2019).

Recognizing changes in behavior or functioning is crucial, as symptoms of schizophrenia might present differently from those of intellectual disabilities. Schizophrenia affects approximately 0.4% of the population (Zindin & Corbett, 2023). It often begins between the ages of 15 and 30, with a higher incidence in males, who typically experience an earlier onset. The illness can develop rapidly over weeks or gradually over months or years. About one-third of individuals with schizophrenia experience only one episode and fully recover, another third have multiple episodes but feel well in

between, and the remaining third have a lifelong condition. The prevalence of schizophrenia among individuals with intellectual disabilities is approximately 3%, which is three times higher than in the general population. This elevated prevalence may be partially explained by genetic risk factors and increased rates of obstetric complications.

Bipolar disorder

People with bipolar disorders have extreme mood swings. They can experience periods of depression, periods of mania and long periods of normal mood in between (Otonga, 2013). The time between these different episodes can vary greatly from person to person, but usually episodes last days or weeks, distinguishing bipolar disorder from moodiness which may cause mood switches that occur on a daily basis or several times a day. It is not unusual for people with this disorder to become psychotic during depressive or manic episodes.

This disorder is characterised by recurrent episodes of mania or hypomania that are sometimes mixed with episodes of depression. The disorder has a lifetime rate of around 1% in the general population. Rapid cycling disorder refers to a subtype of bipolar disorder, where there are four or more episodes in a 12-month period. This type of bipolar disorder usually has a poor response to lithium treatment. Rapid cycling disorder has been described in those with intellectual disability (Vanstraelen & Tyrer, 2019) and may be more common in this population. In a study of bipolar disorder, the author noted that several patients with depressive episodes had attempted suicide. Risk assessment is an important part of the investigation. of possible bipolar disorder, especially in depressive episodes.

Some patients with intellectual disability appear to show cyclical changes in their behaviour, which can be associated with altered mood. Deb and Hunter (2019) described cyclical behaviour and mood changes among 4% of adults with intellectual disability and epilepsy and a similar proportion (4%) of adults with intellectual disability who did not have epilepsy. There may be other factors to account for this, which could include physical factors (changes around periods in women, epilepsy that shows 'clustering', etc), and various environmental factors.

Hypomania and mania

In hypomania, there is a consistent elevation of mood, lasting at least several days. It is usually associated with feelings of wellbeing, increased energy and appetite, and a decreased need for sleep. Subjects may be over-talkative, over-familiar and inappropriately sociable (Reise, 2016). They may

talk about or describe great plans or projects they have decided to start, but rarely carry these out. The symptoms, however, are not marked enough to cause severe disruption to a person's functioning. In the early stage the subject may become usefully productive (in writing or drawing etc). They may also spend an excessive amount of money without any regard to their financial position. Mania occurs where symptoms are severe enough to cause disruption, or there is the presence of psychotic symptoms, such as grandiose delusions. Patients with mania display marked disturbance of speech ('pressure of speech'), and thoughts (flight of ideas or the patient describing their thoughts as 'racing').

They may be distractible, constantly changing plans, and show reckless or foolhardy behaviour, including sexually indiscreet behaviour and social disinhibition. People with mania may become irritable or aggressive if challenged about their grandiosity or behaviour. Single episodes of mania or hypomania are unusual. Recurrent episodes, often with interspersed episodes of depression form the diagnosis of bi-polar affective disorder. In people with an intellectual disability, it is possible that the mood may be predominantly irritable rather than elated. It may be associated with aggression. An early study (Reid, 2012) noted that pressure of speech was seen more commonly than flight of ideas. Delusions and hallucinations were present, but not convincingly diagnosed in those with a moderate or greater disability. They tended to be simpler in nature. Therefore, a person with intellectual disability who cannot drive may have a grandiose delusion that he can drive a car, whereas a non-intellectually disabled person may believe he is the king of the country.

Other symptoms, reported in case studies (Hassan & Mooney, 2019), include aggression, destructive behaviour, restlessness, intensified or rambling speech, echolalia, both increased and decreased appetite, crying and overactivity. Mixed affective states appear to be a commoner presentation of bipolar disorder in this group. Patients may have lability of mood, pressure of speech but no motor overactivity, and describe both grandiose and persecutory delusions at the same time. A family history of bipolar disorder may be present, and on occasions precipitants to the illness can be found. Several authors suggested that mania can be diagnosed in adults with a severe or profound intellectual disability (Reid, 2012), as many of the symptoms can be elicited from accounts from family and carers, and direct observation. These include marked irritability or elation, decreased sleep, increased (or decreased) appetite, overactivity, overfamiliarity with others (especially compared to a baseline), easy distractibility and sexual disinhibition. Changes in behaviour such as aggression and destructiveness are not specific enough to bipolar disorder.

The depression experienced by a person withbipolar disorder has some or all of the symptoms of depression listed previously. The difference between mania and depression for people with an intellectual disability is not as distinct as it is for the general population. People with an intellectual disability are more likely toexperience rapid cycling (more than four episodesof either mania or depression in a year) than the general population ((Zindin & Corbett, 2023). Interpersonal issues associated with bipolar disorder are generally less pronounced in individuals with intellectual disabilities compared to the general population. In individuals with intellectual disabilities, symptoms of mania can manifest in various ways. They may exhibit increased energy and over-activity, such as pacing or rarely sitting, fidgeting, engaging in multiple activities simultaneously, and showing an increase in rituals or compulsions. They might skip from one task to another without completing them and have an inability to sit through previously enjoyable activities.

Elevated mood can lead individuals to feel excessively happy, energetic, or invincible. They may smile, hug, or show affection towards people who were previously not favored, enthusiastically greet everyone (Weifer, 2008), invade personal space, or hit out at previously favored individuals. Additionally, they might display boisterous playfulness, extreme excitement, or over-react to minor incidents with excessive or inappropriate laughter. They may also engage in self-injurious behavior (SIB) related to irritability, and exhibit nasty teasing or difficulty being redirected. A reduced need for sleep is common, with individuals potentially going for days with minimal rest. They may display behavioral challenges when prompted to go to bed, get up constantly during the night, appear rested despite little sleep, work on activities at night, or be ready for work extremely early.

Irritability can occur when others disagree with the manic person's unrealistic plans or ideas. Literature suggests that irritability can be more prominent than elation in individuals with intellectual disabilities (Gunat, 2016). This may result in higher levels of aggression, including aggressive behaviors (both physical and verbal) in response to minor issues, self-injurious behavior, pacing, refusal to cooperate, and destructive behavior. Rapid thinking and speech can be evident as the individual talks excessively, too quickly, and frequently changes topics. They might show increased singing, swearing, or vocalizations, disorganized or repetitive speech, screaming, constant interrupting, heightened non-verbal communication, decreased ability to listen, disconnected thoughts, and report that ideas are moving too fast.

Lack of inhibitions may lead individuals to disregard risks, engage in extravagant spending, or exhibit heightened sexual activity (Atingo, 2013). They might increase masturbation, sexualize

previously platonic relationships, tease others, fondle others, engage in intrusive behaviors like excessive touching or hugging, strip, or give away or spend money.

Grandiose delusions involve inflated self-esteem, such as believing oneself to be superhuman, exceptionally talented, or an important religious figure (Father & Ultisa, 2017). In individuals with intellectual disabilities, these delusions are often simpler, such as making improbable claims. Distinguishing between "wishful thinking" and grandiose ideas is important; grandiose thinking may become evident if the individual becomes highly distressed when their claims are challenged. Other signs include excessive makeup, provocative dressing, demanding rewards, and inappropriate remarks.

A lack of insight into their condition may lead the individual to be so convinced that their manic delusions are real that they do not recognize their illness (Aity, 2012). Additional signs of bipolar disorder in individuals with intellectual disabilities may include sudden or gradual changes in usual behavior, seeking reassurance, loss of skills, loss of bowel or bladder control, loss of ability to communicate, and physical illness (Aity, 2012).

It is important to remember that many of the symptoms associated with a manic episode are often typical features of intellectual disability, e.g. poor judgement, distractibility, excessive activity, aggression, etc. The key to determining whether a person is having a manic episode is to compare their current functioning with previous functioning. Before assuming that the person with an intellectual disability is experiencing mental health problems, look for other factors which may account for the presence of some of the signs or symptoms, e.g. hormonal changes in women, medical conditions such as epilepsy, hypoglycaemia, hyperthyroidism, substances suchas caffeine, medication side effects and various environmental and seasonal factors. It can take people with bipolar a long time to be diagnosed correctly because the person must have had episodes of both depression and mania.It affects 1.8% of Australians aged 16 or over in any one year ((Zindin & Corbett, 2023). Males and females are equally affected. Several studies have reported higher rates of bipolar disorder among people with intellectual disability than in the general population. Prevalence rates range from 0.9%-4.8 (Veryt, 2019)

Interventions for psychotic disorders

A variety of health professionals can provide help to a person with psychosis. They are mental health professionals, psychiatrists, psychologists, counsellors, mental health nurses, case managers etc.

Treatments available for psychosis

There are two aspects to professional help forpsychosis that need to be considered. The first is medication and the second is treatment to improve outcomes and maximise quality of life. Medication is essential to the management of a psychotic illness different psychotic illnesses required different medications and are described below. It is not realistic for expect to manage a psychotic illness without medication. A person with a psychotic illness will need to work closely with their doctors to determine the bestmedications to effectively manage the illness with a minimum of side effects. A person who is experiencing severe psychosis may benefit from ashort stay in the hospital to get back on track.

Psychiatrists, psychologist, counsellors and other mental health professionals may be able to help improve quality of life by helping the person to learn to accept their illness, facilitate good employment or education opportunities and help to maintain good family and social relationships. They may also be able to provide psychoeducation to the person and their family and/or carers to promote good understanding and illness management strategies (Luther, 2016).

The pattern of recovery from psychosis varies from person to person. Some people recover quickly with intervention while others may require support over a longer period. Recovery from the first episode usually take a number of months. If symptoms remain or return, the recovery process may be prolonged. Some people experience a difficult period lasting months or even years before effective management of further episodesof psychosis is achieved. Most people recover form psychosis and lead satisfying and productive lives.

Schizophrenia treatments

There are a variety of treatments supported by substantial evidence for the management of psychosis. Historically, individuals diagnosed with schizophrenia were often considered to have a chronic illness with little or no hope for recovery. However, it is now well-established that with appropriate treatment, people with schizophrenia can lead productive and fulfilling lives. Research has shown that recovery is achievable for many individuals through the use of medications and psychosocial rehabilitation programs. It is essential to approach the treatment of schizophrenia and other psychotic disorders with optimism and in a spirit of partnership. A stable and secure social environment, which includes a pleasant home, support from family and friends, an adequate income, and a meaningful role in society, is crucial for a positive outcome (Usundt & Gefeit, 2016).

There is compelling evidence supporting the effectiveness of specific treatments for individuals with schizophrenia. Antipsychotic medications, for instance, are effective in managing psychotic symptoms such as hallucinations, although they are less effective for symptoms like lack of motivation, poor memory, and concentration difficulties. Antidepressant medications can be beneficial for individuals with schizophrenia who also experience depressive symptoms, effectively treating these co-occurring conditions.

Regular physical health checkups are also crucial, as individuals with schizophrenia often experience poor physical health and may die prematurely from preventable or treatable illnesses. Ongoing monitoring by a general practitioner is therefore essential. Psychoeducation, which involves educating and empowering the individual and their family and caregivers about the illness and its management, has been shown to reduce the likelihood of relapse. Family tension, often stemming from the challenges of dealing with a poorly understood disability, can contribute to relapse, and psychoeducation can play a key role in mitigating this risk.

Cognitive behavioral therapy (CBT) is another important treatment modality. This psychological therapy helps reduce psychotic symptoms by enabling individuals to develop alternative explanations for their symptoms, thereby reducing their impact and encouraging medication adherence (Targhat, 2014). Social skills training is also employed to enhance social and independent living skills.

For those experiencing more severe illness, assertive community treatment is an effective approach. In this model, care is managed by a multidisciplinary team of health professionals, including psychiatrists, nurses, psychologists, and social workers. Care is available 24 hours a day and is tailored to the individual's specific needs. This approach also provides support to family members and caregivers. Research has shown that assertive community treatment reduces relapses and the need for hospitalization.

Bipolar disorder treatments

There is substantial evidence supporting the effectiveness of various treatments for individuals with bipolar disorder. Medications play a central role in managing the condition, with options including mood stabilizers, antipsychotics, and antidepressants. These medications help to regulate mood and address the symptoms associated with bipolar disorder.

Psychoeducation is another critical component of treatment, involving the provision of information to individuals about bipolar disorder, its treatment, and the management of its effects on their lives. When combined with medication, psychoeducation has been shown to reduce the risk of relapse.

Psychological therapies are also effective in treating bipolar disorder. Cognitive behavioral therapy (CBT), for instance, helps individuals monitor mood swings, address cognitive patterns that negatively impact mood, and improve overall functioning (Rhode, 2019). Interpersonal and social rhythm therapy is another beneficial approach. This therapy addresses potential problem areas in the individual's life, such as grief, changes in roles, interpersonal disputes, and deficits. It also aids in regulating social and sleep rhythms, which are crucial for maintaining mood stability.

Family therapy is another important intervention. It educates family members on how to support the individual with bipolar disorder and helps them avoid negative interactions that could trigger relapses. Through family therapy, the support system around the individual can become more effective, contributing to a more stable and supportive environment.

Anxiety disorders

Anxiety is a universal experience, often described using terms such as anxious, stressed, uptight, nervous, frazzled, worried, tense, or hassled. While anxiety is typically an unpleasant state, it can serve a useful purpose by helping individuals avoid dangerous situations and motivating them to solve everyday problems. The severity of anxiety can range from mild uneasiness to terrifying panic attacks (Koci & Cezt, 2018), and its duration can vary from brief moments to many years.

An anxiety disorder, however, differs from normal anxiety in several ways: it is more severe, long-lasting, and interferes significantly with a person's work or relationships. Anxiety disorders are more common in females than in males, with a median age of onset at 15 years, indicating that half of those who will experience an anxiety disorder will have their first episode by this age. Anxiety disorders often co-occur with depression and substance use disorders. Among people with intellectual disabilities, the prevalence of anxiety disorders has been reported to be as high as 27% (Jacto, 2013).

Anxiety and stress disorders are frequently overlooked in individuals with intellectual disabilities, primarily due to communication difficulties. In those with more severe or profound intellectual disabilities, the characteristics of these disorders are often misdiagnosed as challenging behavior. Several conditions associated with intellectual disability, such as Autism Spectrum Disorder, Epilepsy, and Williams Syndrome, may present symptoms of anxiety (Jacto, 2013). In these cases,

anxiety is typically directly related to the condition rather than being a separate anxiety disorder. Nonetheless, individuals with these conditions may still develop anxiety disorders, and the first aid strategies and treatments for anxiety are appropriate regardless of its origin.

The symptoms of anxiety affect an individual's emotions, thoughts, behaviors, and physical well-being. Emotional symptoms may include unrealistic or excessive fear, irritability, impatience, anger, confusion, nervousness, and a depressed mood. Individuals with intellectual disabilities may be more likely to describe their inner experiences in terms of physical sensations due to difficulties in articulating their emotional states.

Cognitive symptoms of anxiety can include excessive worry about past or future events, a racing or blank mind, poorer concentration and memory, trouble making decisions, and vivid dreams. Behavioral symptoms might involve avoiding situations or people, engaging in obsessive or compulsive behaviors, experiencing distress in social situations, and increased use of alcohol or other substances. For those with intellectual disabilities, additional symptoms might include self-injurious behavior, aggression, disruptive or defiant behavior, self-soothing actions (such as rocking, eating, or bathing), clinginess, withdrawal, overactivity, repetitive questioning, and sexual dysfunction (Mand, 2016).

Physical symptoms of anxiety may manifest as a pounding heart, chest pain, rapid heartbeat, blushing, shortness of breath, dizziness, headaches, sweating, tingling and numbness, choking, dry mouth, stomach pain, nausea, vomiting, diarrhea, muscle aches (especially in the neck, shoulders, and back), restlessness, tremors, and difficulty sleeping. When reporting physical symptoms, individuals with intellectual disabilities may not use medical terms and may be less specific about the location of their symptoms. Some of their physical health concerns may also be unfounded (Usundt & Gefeit, 2016).

When assessing the symptoms of various anxiety disorders, it is crucial to consider the developmental level of the individual with an intellectual disability, particularly their cognitive and emotional capacity (Polar & Ert, 2013). People with intellectual disabilities often have reduced insight into their emotions and feelings, as well as a diminished ability to verbally communicate these clearly. Therefore, it may be more effective to rely on observable behaviors rather than self-reports. Behavioral signs of anxiety disorders are often misdiagnosed as stemming from more readily recognized disorders, such as schizophrenia.

Physical illness and the effects of medication may also be underlying causes of anxiety disorders and should be ruled out first if possible. The greater the level of intellectual disability, the more likely it is that anxiety will be expressed through behavior. However, it is important to note that not all challenging behavior is due to an anxiety disorder. Other environmental factors, such as disliking another person in the environment or not wanting to perform a particular task, may also contribute to challenging behavior.

Types of anxiety disorders

There are many different types of anxiety disorders (Collik, 2008). The main ones are generalized anxietydisorder, panic disorder and agoraphobia, phobic disorders, post-traumatic stress disorder and obsessive-compulsive disorder. It is not unusual for a person to have more than one of these anxiety disorders.

Generalised anxiety disorder (GAD)

Some people experience long term anxiety acrossa whole range of situations and this interferes with their life. These people have generalized anxiety disorder. The main symptoms of generalized anxiety disorder are overwhelming, unfounded anxiety and worry (about things that may go wrong or ones; inability to cope) accompanied by multiple physical and psychological symptoms of anxiety or tension occurring more days than not, for a least six months (Ytte & Iuyt, 2021). People with generalized anxiety disorder worry excessively about money, health, family and work/day options, even when there are no signs of trouble. For people with an intellectual disability this may also include friendships, relationships with staff and carers. The anxiety appears difficult to control. Other characteristics can include an intolerance ofuncertainty, belief that worry is a helpful way to deal with problems and poor problem-solving. Generalized anxiety disorder can make it difficult for people to concentrate at school or work, function at home and generally get on with their lives.

Generalised anxiety disorder is equally common, and according to some studies more common, among adults with intellectual disability as in the general adult population (Raghavan, 2017). In this condition anxiety is generalised and persistent but not restricted to, or even strongly predominating in, any particular environmental circumstances (i.e. it is 'free-floating'). The dominant symptoms are variable but typically include complaints of persistent nervousness, trembling, muscular tensions, sweating, light-headedness, palpitations, dizziness, and epigastric discomfort. Fears that the patient or a relative may shortly become ill or have an accident are often expressed (ICD-10). Adults with intellectual disability may be able to describe a persistent generalised anxiety or tension.

Signs such as persistent irritability, difficulty getting to sleep or somatic complaints may be noticed. The presentation again may be through behaviour disorder.

A comparison study (Masi et al, 2020) of generalised anxiety disorder in those with intellectual disability against those with normal intelligence suggested that GAD can be identified in those with a mild disability. Symptoms were similar, although there was an increase in brooding, somatic complaints and sleep disorder. There were high rates of co-morbid depression. Other possible diagnosis, if there is marked irritability associated with overactivity, are mania or hypomania. Physical illness and medication may be an underlying cause and should be ruled out if possible. Co-morbidity with other psychiatric illnesses such as depression is common and should be ruled out.

Panic disorder and agoraphobia

Some people have short periods of extreme anxiety called a panic attack. A panic attack is a sudden onset of intense apprehension, fear or terror (Naota, 2017). These attacks can begin suddenly and develop rapidly. This intense fear is inappropriate for the circumstances in which it is occurring. Other symptoms, many of which can appear similar to those of a heart attack, can include racing heart, sweating, shortness of breath, chest pain, dizziness, feeling detached from oneself andfears of losing control. Once a person has one of these attacks, they often fear another attack and may avoid places where attacks have occurred. The person may avoid exercise or other activities that may produce physical sensations similar to those of a panic attack.

Having a panic attackdoes not necessarily mean that a person will develop panic disorder. A person with panic disorder experiences recurring panic attacks and,for at least one month, is persistently worried about possible consequences of panic attacks, such as fear of losing control or having a heart attack. Some people may develop panic disorder after only a few panic attacks, while others may experience many panic attacks without developinga panic disorder. Some people with panic disordergo onto having agoraphobia where they avoid places where they fear they mayhave a panic attack (Edder, 2018). Avoidance of situations or activities associated with some of the anxiety disorders may be limited or hampered in people with an intellectual disability. This can be due to support arrangements, level of disability and lack of choice. This may then result in their use of aggressive, non-compliant or self-injurious behaviours.

Agoraphobia

Agoraphobia involves avoidance of situations where the person fears they may have a panic attack. The focus of their anxiety is that it will be difficult or embarrassing to get away from the place if a panic attack occurs, or that there will be no one present who can help. This leads them to avoid certain situations for fear of a panic attack occurring. Some may avoid only a few situationsor places, for example crowds, enclosed places such as shopping malls, or driving (Ballt, et al, 2009). Others may avoid leaving their homes altogether. Agoraphobia is thought by many to mean a fear ofopen spaces or a fear of leaving the house. While these symptoms may occur with agoraphobic, the person cannot be said to have agoraphobia unless they have a fear of panic attacks.

Phobic disorders

A person with a phobia avoids or restrictsactivities because of fear. This fear appears persistent, excessive and unreasonable. They may have an unreasonably strong fear of specific places or events and often avoid these situations completely. There seems to be uncertainty about the true extent of phobias in people with intellectualdisability (Edder, 2018). This may in part be due to the difficulty of diagnosing this condition in this population. Adults with an intellectual disability appear to havesimilar rates of phobias as children without anintellectual disability. This is possibly due to the fact that they share some common lifestylecharacteristics such as;

- lack of control over their life,
- a feeling of powerlessness,
- not having the means to avoid the source oftheir phobia,
- being more likely to experience failure due tolack of knowledge or skills,
- lack of insight, and underdeveloped problem-solvingskills

In panic disorder, there are recurrent attacks of severe anxiety (panic), which are not limited to particular situations, and therefore occur 'out of the blue'. The symptoms of anxiety present during an attack include palpitations, chest pain, choking feelings, dizziness, abdominal discomfort, and feelings of unreality. There is extreme anxiety, with the subject feeling as though they are about to die, go mad, or lose control. Panic disorder may occur in an adult with intellectual disability (Orlando, 2011). Some of the signs associated with a panic attack may be observable e.g. sudden onset, external signs of anxiety such as shaking and sweating. Some may present with blackouts. Again though, in those with limited communication, the presentation may be with disturbed behaviour.

Social phobia is the fear of any situation where public scrutiny may occur, usually with the fear of behaving in a way that is embarrassing orhumiliating (Bratt & Olson, 2017). They key fear is that others will think badly of the person. Social phobia often develops in shy children as they move into adolescence. Commonly feared situations include speaking or eating in public, dating and social events. People with ASD (Autism Spectrum Disorder) often display symptoms of social phobia as part oftheir disorder. Fragile X syndrome is also often associated with social anxiety.

Specific phobias are phobias of specific objects or situations. The most common fears are of spiders, insects, mice, snakes and heights. Other feared objects or situations include an animal, blood, injections, storms, driving, flying, or enclosed places. Because they only involve specific situations or objects, these phobias are usually less disabling than agoraphobia and social phobia. It has been reported that adults with an intellectualdisability have a higher rate of specific phobias (e.g. spiders, heights, specific situations) than the general population (Orlando, 2011)

Post-traumatic stress disorder(PTSD)

Post-traumatic stress disorder can occur after a person experiences what they perceive to be a traumatic event. What is perceived as traumatic will vary from person to person (Bratt & Olson, 2017). Common examples of traumas that many people find traumatic include involvement in war, accidents, assault (including physical or sexual assault, mugging or robbery, or family violence), and witnessing something terrible happen. Mass traumatic events include terrorist attacks, massshootings, warfare and severe weather events (cyclone, tsunami and bushfire). It is thought that people with an intellectual disability, due to increased vulnerability (associated with greater dependence, living in unsuitable and sometimes stressfulenvironments), are at a greater risk for experiencing repeated traumatization and hence PTSD.

A major symptom is re-experiencing the trauma. This may be in the form of recurrent dreams of theevent, flashbacks, intrusive memories or unrest in situations that bring back memories of the original trauma. In people with an intellectual disability, flashbacks and memories may be vaguer or distorted or may be re-experienced and reported as a 'recent event'. Ignatius (2015) noted that because of a reduced abilityto communicate about their symptoms, it may appear that the person with an intellectual disability who is experiencing a stress reaction is having hallucinations.

There is avoidance behaviour, such as persistent avoidance of things associated with the event, emotional numbing, which may continue for months or years, or reduced interest in others and the outside world. In an attempt to avoid certain situations or stimuli, the person with an intellectualdisability may display aggressive, escape or non- compliant behaviours (Orlando, 2011) Also persistent symptoms of increased emotional distress occur (constantwatchfulness, irritability, jumpiness, being easilystartled, outburst of rage, insomnia).

People with an intellectual disability may express their fear by screaming, crying, nightmares, cringing when approached by people, hiding, and wearing several layers of clothing while sleeping. They may also show persistent signs of increased arousal (hyper-vigilance, irritability, exaggerated startle response, outbursts of rage, insomnia, enuresis, encopresis).

Obsessive Compulsive Disorder (OCD)

Obsessive-Compulsive Disorder (OCD) is characterized by recurrent obsessions, such as intrusive thoughts, images, or ideas, with or without compulsions, which are repetitive acts serving no useful function. According to the ICD-10 criteria, for a diagnosis of OCD to be made, these obsessions or compulsions must be recognized by the individual as originating within their own mind. They must be repetitive, unpleasant, and perceived as excessive and unreasonable. Typically, the person will attempt to resist engaging in these obsessive thoughts or compulsive behaviors, although this resistance may diminish over time in long-standing cases. While carrying out compulsive behaviors may provide temporary relief, it does not bring inherent pleasure. These obsessions or compulsions must cause significant distress or interfere with the individual's social functioning, and they should not be attributable to another mental disorder, such as a psychotic or affective disorder.

In the general population, the point prevalence of OCD is approximately 1% (Meltzer et al., 1995). Among populations with intellectual disabilities, prevalence rates have been reported to range between 1% and 3.5% (Deb, 2017). It is crucial to distinguish obsessions from obsessional traits, where the individual may exhibit over-organization and meticulousness in their habits without causing distress to themselves or others. Additionally, repetitive speech, echolalia, or ruminations, often seen in particularly anxious individuals with limited verbal skills or those with an autistic disorder, should be differentiated from true obsessions. Identifying obsessions in individuals with intellectual disabilities can be challenging, as they may not recognize these thoughts as originating from their own mind, and resistance to compulsions may be absent. Anxiety is not always recognized as a feature, and compulsive behaviors are common in adults with intellectual disabilities. These behaviors may arise in a variety of psychiatric disorders, including schizophrenia,

affective disorders, and autism, and must be distinguished from stereotyped behaviors and movement disorders resulting from underlying brain damage.

While there are case reports of individuals with intellectual disabilities presenting with classic OCD (McNally & Calamari, 2018), some scholars suggest that the diagnosis should emphasize the observable behavioral components of the disorder rather than internal states and anxiety. In such cases, the term "compulsive-behavior disorder" has been proposed, with evidence suggesting that individuals with predominantly compulsive behavior symptoms may respond to standard OCD treatments (Barak et al., 2015). Various health professionals, including psychologists, counselors, psychiatrists, general practitioners, and allied health professionals such as occupational therapists, social workers, and mental health nurses, can provide assistance to individuals with anxiety disorders. In instances where the individual is uncertain about how to proceed, it is advisable to encourage them to consult a general practitioner first. A GP can assess for any underlying physical health problems that may be contributing to the anxiety and refer the individual to an appropriate specialist for further help.

Research has demonstrated the effectiveness of a wide range of treatments for anxiety disorders (Barak et al., 2015). Among psychological therapies, cognitive-behavioral therapy (CBT) is considered the most effective treatment. CBT involves working with a therapist to identify patterns of thinking and behavior that exacerbate anxiety or hinder recovery. Once these patterns are recognized, the individual can work to replace them with new behaviors that reduce anxiety and improve coping mechanisms. The extent to which CBT needs to be adapted, and its effectiveness, will depend on the individual's level of disability, the specific problem being addressed, and the professional's understanding of intellectual disability. Behavior therapy, also known as exposure therapy, is often a component of CBT. It involves gradually exposing the individual to situations that trigger anxiety (Dalott, 2012). Exposure can occur either in real life or through imagination, teaching individuals that their fear will diminish without the need to avoid or escape the situation, and that their fears often do not materialize or are not as severe as anticipated.

Scientific evidence supports the use of various medications for anxiety disorders. Antidepressant medications are effective for most anxiety disorders as well as for depression, while anti-anxiety medications such as benzodiazepines can also be effective in reducing anxiety. However, the use of these medications should be restricted to short-term periods due to potential side effects, including dependency, sedation, rebound anxiety, and memory impairment. Medications should be used in

conjunction with other interventions that equip the individual with skills to manage their mental health, with regular reviews by a general practitioner or psychiatrist essential.

Disorders related to appetite and weight are also common among individuals with intellectual disabilities. For example, Prader-Willi syndrome is associated with compulsive overeating, leading to extreme obesity and related health issues such as diabetes (Wind, 2018). A significant number of individuals with intellectual disabilities are prescribed medications that affect appetite and weight, including neuroleptics, antidepressants, and some anticonvulsants. In some cases, these individuals may develop specific eating disorders such as anorexia nervosa and bulimia nervosa. Anorexia nervosa is characterized by deliberate weight loss, behaviors aimed at maintaining low weight (such as self-induced vomiting, starvation, or excessive exercise), a distorted sense of body image, and disturbances of the hypothalamic-pituitary axis, such as amenorrhea in females. Bulimia nervosa, on the other hand, involves a preoccupation with weight control, repeated episodes of overeating followed by vomiting or the use of purgatives, and an overconcern with body shape and weight. Individuals with bulimia nervosa typically maintain a normal weight, although there may be a history of anorexia preceding the disorder. Other psychiatric disorders, particularly depression, are commonly present alongside eating disorders. In individuals with intellectual disabilities, eating disorders may also present as behavioral disorders, such as pica.

Sleep disorders are another prevalent issue among individuals with intellectual disabilities, often long-standing and persistent. Certain syndromes, such as Prader-Willi (Clarke & Boer, 1998), are linked to sleep disorders, while conditions such as Down's syndrome are associated with sleep apnea. Sleep apnea may manifest as behavioral disorders and often goes unrecognized. Sleep problems in individuals with intellectual disabilities are commonly attributed to underlying disorders or issues, including physical disorders causing pain or discomfort, epilepsy, psychiatric disorders such as depression, medication side effects, and environmental factors like noise or room temperature. Addressing sleep problems requires a comprehensive assessment to rule out these underlying causes, potentially including the use of functional analysis. Other sleep-related disorders that may occur in adults with intellectual disabilities include nocturnal seizure activities and parasomnias. Through a thorough understanding of these interrelated issues, effective treatment and support strategies can be developed, leading to improved outcomes for individuals with intellectual disabilities.

Dementia

Dementia is a condition characterized by a progressive deterioration in higher cognitive abilities, often associated with changes in personality, due to a degenerative process in the brain (Cotson & Kertin, 2009). Unlike intellectual disabilities, which are developmental disorders, dementia occurs in clear consciousness and is typically acquired later in life. The symptoms of cognitive decline in dementia include changes in memory, especially in new learning, orientation, comprehension, planning, language, visuospatial abilities, and judgment. Early signs may present as changes in emotion, social behavior, and motivation before cognitive symptoms become apparent.

There are various types of dementia, with Alzheimer's disease being the most common, particularly in individuals with temporoparietal predominance. Alzheimer's disease may account for half or more of all dementia cases and has a specific link with Down's syndrome. Other types include vascular dementia, which may co-exist with Alzheimer's disease and often presents acutely or in a step-like manner; Lewy body dementia; Pick's disease, which typically has a frontotemporal predominance and begins in middle age; Huntington's disease with subcortical predominance; and dementia associated with Parkinson's disease. While a few cases of dementia have underlying treatable causes, such as hydrocephalus or hypothyroidism, most cases are progressive and primarily affect the elderly. In the general population, dementia has a prevalence of about 2% in individuals aged 65–70, rising to approximately 20% in those over 80 years of age (Royal College of Physicians, 2011). In individuals with intellectual disabilities, dementia occurs earlier and at higher rates, with community-based studies reporting rates of 14%, 11%, and 22% in those over 64 years of age.

The early stages of dementia are typically marked by memory impairment, particularly in new learning, while later stages involve the loss of acquired memories, especially those laid down more recently. Disorientation, particularly in time, and changes in language ability and learned skills become more apparent as the disease progresses (Hillton & Jillson, 2016). Emotional changes, loss of motivation, and alterations in social behavior are common, and in some adults with intellectual disabilities, early manifestations may include sleep cycle reversal and time disorientation. As the disease progresses to the middle stages, individuals may experience dyspraxias and agnosias, which can present as a loss of skills in those with intellectual disabilities. Primitive reflexes may reappear, and psychiatric symptoms may develop. In the later stages, increasing muscle tone and epileptic seizures are common, along with the reappearance of reflexes such as sucking and grasping. Incontinence and loss of most motor functions ensue, heightening the risk of infections like bronchopneumonia, which can often lead to death (Royal College of Physicians, 2011).

Substance Misuse

Substance misuse affects the brain in various ways, with individuals using substances to increase feelings of pleasure or decrease feelings of distress. However, substance use alone does not constitute a substance use disorder (Filar, 2018). Substance use disorders are categorized into two main types: abuse and dependence. Substance abuse refers to the use of alcohol or other drugs in a manner that leads to problems at work, school, or home, legal issues, or damage to health. Substance dependence involves a range of symptoms, including tolerance, where the person needs increased amounts of the substance over time or experiences diminished effects with repeated use. Withdrawal symptoms are another hallmark, with the individual either experiencing these symptoms or using the substance to alleviate them. Dependence is also characterized by the use of larger amounts or over longer periods than intended, difficulty in cutting down or controlling use, and spending a significant amount of time obtaining, using, or recovering from the substance's effects. Additionally, individuals with substance dependence often give up or reduce important social, occupational, or recreational activities due to substance use, and continue using the substance despite knowing it causes persistent physical or psychological problems.

Approximately 5.1% of Australians aged 16 years or over have a substance use disorder in a given year. Alcohol use disorders affect 4.3% and other drug use disorders 1.4%. Males are affected by substance use disorders more than females (7.0%vs. 3.3%). Substance use disorders tend to beginin adolescence or early adulthood with a median age of onset of 18 years which means that half the people who will ever have a substance use disorder will experience its onset before this age (Edson & Galton, 2019).

Substance use disorders often co-occur with mood, anxiety and psychotic disorders. People with a psychotic disorder are over four times as likely to have an alcohol use disorder and over ten times as likely to have another drug use disorder compared to people without a psychotic disorder (Drone, 2020). People with an anxiety disorder or a mood disorder are three times as likely to have a substance use disorder. One reason for this is that many people use alcohol or other drugs to relieve unpleasant emotions. However, alcohol or other drug use can also cause other problemsin a person's life (e.g. relationship or financial problems) and heavy use may contribute to orexacerbate a mental illness (Erfert, 2019).

There is relatively little information about Substance Misuse in those with an intellectual disability. However, it appears that between 1 and 6% of people with intellectual disability have aproblem with the use of alcohol or other drugs. This is lower than the general population.

Predictably, use of these substances is generally restricted to those with lesser degrees of disability. Drug and alcohol abuse are less likely in supported environments where staff are involvedin the person's social life, where there is somekind of tenancy agreement involving conduct or where money is under the supervision of staff. Limited income and a lack of knowledge abouthow to purchase drugs in particular may limit a person with intellectual disability's access tosubstances (Royal College of Physicians, 2011).

There are now a greater number of adolescents and adults with an intellectual disability living inthe community. This provides opportunities for greater freedom from restriction, autonomy, income and access to the community, as well as respect for individual choices. These conditions have provided greater opportunity for substance use and misuse. However, once they have started; it appears that people with intellectual disability are less likely to give up use than their non-disabled peers. Given the problems with low self-esteem that are common to people with an intellectual disability,they appear to be particularly prone to reliance on alcohol and other drugs for a sense of being equal and belonging that these offers and for the way they can compensate for poor social skills. People with an intellectual disability are also more vulnerable to stress and have reduced self-regulation and coping skills. They may thereforebe more likely to resort to alcohol and cigarettesas a way of coping with their mental health symptoms (Comely, 2014). A number of associated medical and psychological difficulties common to those with a substance use disorder are likely to be magnified in people with an intellectual disability who suffer from a substance use disorder.

Alcohol

Individuals with intellectual disabilities who suffer from a substance use disorder often experience amplified medical and psychological difficulties compared to those without such disabilities. Substance use, whether involving alcohol or other drugs, tends to exacerbate pre-existing vulnerabilities in this population. Alcohol consumption, for example, decreases alertness and impairs concentration and coordination. While some individuals use alcohol to alleviate anxiety, its short-term effects include relaxation and lowered inhibitions, leading to increased confidence and extroverted behavior. However, alcohol can also cause a range of both short-term and long-term health issues (Royal College of Physicians, 2011).

Cannabis, the most commonly used illicit drug, is a psychoactive substance derived from the hemp plant, with delta-9-tetrahydrocannabinol (THC) as its primary active ingredient. The effects of cannabis vary depending on its THC content, but its use is frequently linked to mental health issues

such as anxiety and depression. Research indicates that cannabis use, especially during adolescence and early adulthood, can increase the risk of developing schizophrenia, particularly in those with a personal or family history of the disorder (Funich, 2021). This risk may be heightened in individuals with intellectual disabilities due to their reduced coping skills, making them more susceptible to the psychosis that cannabis can induce. Although many cannabis users reduce their consumption as they reach their twenties and encounter increased responsibilities, those with intellectual disabilities may not experience this shift to the same extent. The ongoing need for support, coupled with social challenges and limited employment opportunities, can result in sustained cannabis use into adulthood among this population.

Opioid drugs, including heroin, morphine, opium, and codeine, are another category of substances with high abuse potential. Heroin, derived from morphine, is a highly addictive drug that produces a short-term sense of euphoria, well-being, and pain relief. Despite its limited use in Australia, heroin use typically leads to substance dependence, often accompanied by depression, alcohol dependence, and criminal behavior. Heroin users are also at an elevated risk of suicide. In addition to illicit substances, the misuse of prescription medications presents a significant concern. Drugs prescribed for anxiety and sleep disorders, for instance, are sometimes used non-medically, leading to dangerous situations like impaired driving. Long-term use of these medications can result in dependence, particularly among older adults, who are more susceptible to associated risks such as falls and cognitive impairment (Edson, 2019).

Cocaine, a powerful stimulant, has a long history of abuse. Despite its reputation as a modern drug problem, cocaine addiction has been prevalent for over a century. According to the 2007 National Drug Strategy Household Survey, 1.6% of Australians aged 14 or older reported using cocaine in the past year (Alrund, 2019). Cocaine use is associated with intense euphoric effects, and dependence can develop rapidly. Prolonged use can lead to serious mental health issues, including paranoia, aggression, anxiety, depression, and drug-induced psychosis. When addressing substance misuse, various health professionals can provide assistance. If an individual is unsure of how to proceed, it is important to encourage and support them in consulting a general practitioner (GP) as a first step. The GP may refer the person to a specialized drug or alcohol service or a mental health professional, particularly if there are co-occurring mental health issues.

Treatment options for substance misuse vary based on the severity of the problem, the individual's motivation to change, and any co-existing physical or mental health conditions. For individuals who are problem drinkers or drug users, brief interventions by a GP can be effective. These interventions

typically involve up to four sessions, each lasting from a few minutes to an hour. During these sessions, the GP assesses the individual's substance use, provides information on the associated health risks, advises them to reduce or cease use, discusses the pros and cons of making changes, and motivates them by emphasizing personal responsibility. Progress is monitored throughout the intervention, with the GP adopting an empathetic rather than coercive approach (Ebert, 2018). Individuals with intellectual disabilities may require additional support from family members, carers, or support workers to attend these sessions. Moreover, GPs might need assistance in employing appropriate communication strategies tailored to the individual's needs.

For individuals with a substance use disorder, effective treatment requires a comprehensive approach that addresses several key aspects: overcoming physiological dependence, addressing psychological dependence, and breaking habitual patterns related to substance use. Physiological dependence must first be managed, typically through a process of withdrawal from alcohol or drugs, which should be conducted under professional supervision to ensure safety and effectiveness. However, withdrawal alone is insufficient; it must be integrated with other treatments to prevent relapse and support long-term recovery. This process necessitates significant lifestyle changes to alter behaviors associated with substance use.

Psychological treatments play a crucial role in the recovery process. Cognitive Behavioral Therapy (CBT) is commonly employed to help individuals manage cravings and recognize situations that might trigger a relapse. The efficacy of CBT, and the extent to which it needs to be adapted, depends on the individual’s level of intellectual disability, the specific issues being addressed, and the professional’s understanding of intellectual disability. Motivational Enhancement Therapy is another important psychological treatment that aims to empower individuals to change by enhancing their motivation. Additionally, Contingency Management is a behavioral therapy that offers incentives, such as shopping vouchers or privileges, to encourage negative drug test results or actions that reduce harm, such as getting tested for hepatitis or HIV.

Medications can also be a critical component of treatment for substance use disorders. For individuals with alcohol use disorders, options include anti-craving medications, drugs that induce unpleasant effects when alcohol is consumed, and medications for treating underlying anxiety and depression. For those dependent on opioid drugs, methadone maintenance therapy is available as a long-term treatment option. It is important that medications are used in conjunction with other interventions that equip individuals with life skills and opportunities to manage their mental illness. Moreover, the use of medication should be regularly reviewed by a general practitioner or

psychiatrist to ensure its effectiveness and to make any necessary adjustments. This holistic approach, combining physiological, psychological, and pharmacological strategies, is essential for achieving and sustaining recovery in individuals with substance use disorders.

2.1.4. Mental healthcare services

Clinicians employ various techniques during intake to collect information necessary for formal psychiatric evaluations. This process typically involves examining the type and severity of the symptoms reported by the patient, as well as the signs observed by the clinician. Two critical components of this evaluation process are the construction of treatment histories, which includes documenting the use of medications, and conducting mental status examinations to assess current cognitive, social, behavioral, and emotional functioning. To gather comprehensive information, clinicians use structured and unstructured interviews, symptom questionnaires, patient observations, personality inventories, and psychological tests. The findings from these sources are integrated to form a diagnosis and recommend a psychiatric treatment and rehabilitation plan (Nolen-Hoeksema, 2015).

The validity and reliability of psychiatric assessment tools are fundamental to ensuring accurate diagnosis. Validity refers to the accuracy of an instrument in measuring what it is intended to measure, while reliability pertains to the consistency with which the instrument collects information. The field of psychometrics has established various types of validity and reliability to serve different purposes in instrument construction and application (Anastasi & Urbina, 2017). Additionally, sensitivity and specificity are crucial concepts in determining the accuracy of an assessment or screening tool. Sensitivity refers to the tool's ability to correctly identify those with a disease, while specificity indicates its ability to correctly identify those without the disease.

Psychiatric assessments require significant time, skill, and specialized training in diagnostic tools and criteria. However, in correctional settings, where clinical staff is limited and caseloads are high, conducting comprehensive psychiatric assessments on every individual entering the criminal justice system is neither feasible nor cost-effective (Earley, 2016). To address this challenge, mental health screenings are often used to identify individuals who require further evaluation. Unfortunately, the screening tools used in criminal justice settings are frequently unstandardized, and the procedures vary significantly across agencies, leading to low validity and reliability of the results (Steadman & Veysey, 2017). For instance, a survey of state prisons revealed that most institutions lacked valid data on the prevalence of psychiatric conditions among inmates, a problem attributed to outdated

information systems and non-standardized screening and assessment procedures (Hornung et al., 2012).

Similar issues likely exist in probation departments and jails, where variation in screening and referral practices may be equally prevalent. As noted by Steadman (2005), mental health screening in jails can range from a few basic questions about prior treatment to detailed, structured mental health status examinations. Despite the need for effective screening tools, few criminal justice agencies employ brief, validated instruments specifically designed for offender populations (Swartz, 2011). Although the war on drugs has led to the widespread use of screening and assessment tools for substance use disorders, comparable instruments for detecting mental illness have received little attention (Peters et al., 2020). Many criminal justice agencies develop their own psychiatric screening tools, which often rely solely on face validity—the lowest level of measurement accuracy—and lack rigorous reliability and validity testing. In some cases, the mental health needs of individuals are assessed based on probation officers' subjective judgments, which tend to significantly underestimate the prevalence of severe mental illness (SMI) among probationers. The most effective screening tools are those with high predictive validity, meaning that most individuals flagged by the tool as being positive for a condition should, upon assessment, be found to have a treatable serious mental illness (Steadman, 2015).

It is important to note that most psychiatric screening instruments have been validated on samples from the general population rather than on samples from criminal justice populations. Accurate estimates of the prevalence of psychiatric disorders are crucial for clinical decision-making, such as determining when an individual's symptoms warrant further evaluation and treatment (Schmitz et al., 2000). Consequently, screening tools used in correctional settings should be tested on criminal justice populations, where the prevalence of psychiatric disorders is higher than in the general population (Human Rights Watch, 2003). When selecting a screening tool for use in corrections, it is essential to consider the unique conditions of criminal justice settings, which are characterized by a shortage of clinical services, limited treatment slots, and a high volume of screenings conducted by non-clinical staff.

Hepburn (2014) suggests that screening instruments for substance use disorders in criminal justice settings should have standardized and replicable scoring criteria, allowing them to be implemented and interpreted by lay interviewers. These tools should be brief, easy to administer, and not require extensive training. Psychiatric screening in criminal justice settings faces similar constraints and

pressures as substance use disorder screening. Therefore, an ideal psychiatric screening device would possess the same attributes as a substance abuse screening tool.

Defining the appropriate content for a psychiatric screening instrument is more complex than for a substance use disorder screening tool for two primary reasons. First, the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) lists 15 general categories of non-substance use disorders under Axis I (APA, 2002). While it is feasible to screen briefly for all drugs of abuse or the presence of any substance use problem, it is neither practical nor efficient to screen for every Axis I psychiatric diagnosis. Second, even if it were possible to screen for every DSM-IV Axis I disorder, not everyone with a disorder requires treatment (APA, 2013). Clinical severity and treatment needs exist on a continuum, and some individuals with seemingly severe psychiatric disorders may function adequately without clinical intervention (Regier et al., 2018). The challenge lies in determining which psychiatric disorders should be included in a screening tool and establishing criteria for when a disorder is severe enough to warrant clinical intervention or further assessment.

Candidate Screening Instruments

Several approaches have been implemented to streamline standardized screening procedures for psychiatric disorders. One approach focuses on determining if individuals meet diagnostic criteria for severe clinical conditions that necessitate treatment and intervention. This subset typically includes schizophrenia, bipolar disorder, and major depressive disorder (APA, 2013). Derived from comprehensive assessment tools like the Composite International Diagnostic Interview (CIDI) (Robins et al., 2018), these streamlined instruments are modular, each containing specific modules tailored to diagnose particular disorders or classes of disorders. Examples include the Composite International Diagnostic Interview – Short Form (CIDI-SF) (Kessler et al., 2018), the Mini-Neuropsychiatric Interview (MINI), and the Referral Decision Scale (RDS) (Royal College of Psychiatrists, 2001). To expedite administration, modules that screen for less clinically significant disorders can be omitted.

However, despite their flexibility, these diagnostic screening tools face challenges of over- and under-identification, particularly in resource-constrained criminal justice settings where accuracy is critical. Diagnosis-driven screening assumes clinical intervention is only warranted upon meeting diagnostic criteria for specific disorders. Those not meeting criteria for any disorder may not be referred for further assessment or treatment, potentially missing individuals with severe yet undiagnosed conditions like post-traumatic stress disorder or generalized anxiety disorder—errors

termed false negatives. This omission can lead to untreated severe mental illness among incarcerated individuals, increasing risks of recidivism, homelessness, substance abuse, and violence (Australian Bureau of Statistics, 2017). Moreover, the complexity added by DSM-IV diagnosis, including skip patterns and question probes, can reduce instrument validity and reliability, especially given the limited clinical and interviewing skills of corrections staff (Human Rights Watch, 2003).

Traditional classification instruments typically do not assess an individual's dynamic risks and needs beyond what is relevant for institutional placement. Yet, integrating more comprehensive screening and assessment tools during initial intake can enhance classification processes and identify reentry risks and needs, facilitating the development of tailored transition plans. Reliable and validated assessment tools have been shown to better predict offender risks and needs compared to clinical judgment (Andrews & Bonta, 2014), aiding in the allocation of resources and interventions for those at highest risk.

For effective initial assessments, jurisdictions can benefit from leveraging information gathered by justice system agencies with prior contact, such as police, prosecutors, and probation and parole staff. Pretrial services programs play a pivotal role in assessing risks and needs before individuals are formally booked into jail (Human Rights Watch, 2003). Regular re-administration of assessments, particularly before release, ensures that reentry plans reflect individual progress and changes in circumstances.

Jails typically conduct varying levels of screening upon intake, with smaller facilities often limited to basic health and suicide risk assessments, while larger institutions generally include more comprehensive mental health evaluations and crisis interventions (Steadman & Veysey, 2017). However, the high volume of daily admissions and short stays present significant barriers to widespread screening and assessment.

Individuals with developmental disabilities are disproportionately affected by psychiatric disorders compared to the general population. Reber (2019) highlighted the prevalence of conditions such as schizophrenia, bipolar disorder, major depression, ADHD, obsessive-compulsive disorder, and other anxiety disorders among those with developmental disabilities, which are often interchangeably referred to as mental retardation in the literature. Effective treatment for this population necessitates a multidisciplinary approach incorporating environmental modifications, behavioral interventions, counseling, and psychopharmacology to address the diverse spectrum of psychopathology they may experience.

Many individuals with developmental disabilities and concurrent psychiatric conditions receive treatment with psychotropic medications. For instance, Spreat (2012) noted that among adults with mental retardation, a significant proportion were prescribed neuroleptics, antidepressants, and anxiolytics. However, research in this area is hindered by methodological challenges, including difficulties in obtaining informed consent for psychotropic treatments and inconsistent definitions of terms like mental retardation or developmental disabilities (Borthwick-Duffy, 2017).

The complexity of treating individuals with both intellectual disabilities and mental disorders is further compounded by diagnostic overshadowing, where medical or physical issues may be misattributed to psychiatric symptoms, and by the lack of standardized clinical tools for this population. These factors contribute to variability and limitations in pharmacological studies aimed at this dual-diagnosis group, impacting the generalizability and applicability of findings in clinical practice.

Antidepressants are crucial in treating major psychiatric disorders like major depression and other depressive disorders. Selective serotonin reuptake inhibitors (SSRIs) are often preferred due to their favorable side effect profiles compared to older antidepressants. However, if there is inadequate response after four to six weeks of treatment at therapeutic doses, reconsidering the diagnosis and exploring alternative antidepressants such as venlafaxine, trazodone, tricyclic antidepressants, or moclobemide may be necessary. Studies have demonstrated efficacy of both fluoxetine and paroxetine in treating depression among adolescents with developmental disabilities (El Fert, 2018).

The serotonergic action of antidepressants like fluoxetine, sertraline, and clomipramine also extends to treating conditions such as obsessive-compulsive disorder (OCD) and behavioral issues like stereotypy and aggression. While clomipramine has shown effectiveness in managing self-injury and stereotypy in individuals with developmental disabilities, its use may be associated with significant adverse effects (Doit & Gill, 2019). Fluoxetine, however, has been noted to potentially exacerbate aggressive behaviors in this population. Mirtazapine, another antidepressant, has been studied in open-label trials and shows modest effectiveness in treating a range of symptoms associated with pervasive developmental disabilities, including aggression, self-injury, irritability, hyperactivity, anxiety, depression, and insomnia.

In summary, antidepressants are indicated for treating major depression, anxiety disorders, OCD, eating disorders, and various challenging behaviors in individuals with intellectual disabilities. Caution is advised, particularly in those with bipolar disorder, as antidepressants can precipitate manic or hypomanic episodes, especially in rapid cycling or mixed states (Qar, 2019).

Moving to anxiolytics, benzodiazepines are sometimes used to manage anxiety disorders but can lead to paradoxical reactions such as hostility, disinhibition, and increased self-injurious behavior, particularly in individuals with pre-existing stereotypical behaviors (Asand & Nilson, 2019). Due to their potential for abuse, tolerance, and dependence, benzodiazepines are recommended for short-term use only, typically not exceeding three weeks. Alternative treatments for insomnia, such as trazodone and behavioral modifications, are preferred over benzodiazepines in the long term.

Buspirone, a partial 5-hydroxytryptamine-1 (5HT-1) agonist, has shown efficacy in treating generalized anxiety disorder and improving agitation and behavioral issues, including aggression and self-injury, in individuals with developmental disabilities (Bill, 2019). However, caution is warranted as anxiolytics can sometimes exacerbate agitation and aggression or cause paradoxical excitement in this population.

Moving on to mood stabilizers, lithium is effective in managing acute mania, cyclothymic disorder, and as prophylaxis for bipolar disorder type I, including cases of cycloid psychosis seen in conditions like Prader-Willi syndrome (Craft et al., 2013). It has also shown promise in reducing aggression and self-injury in individuals with developmental disabilities but requires careful monitoring due to the risk of toxic side effects. Valproic acid is preferred for rapid cycling and mixed states in bipolar disorder among individuals with developmental disabilities, although evidence supporting its use for behavioral disturbances remains limited (Kalachnik et al., 2015). Divalproex sodium has been found effective and well-tolerated in treating aggression and self-injury in adults with developmental disabilities.

Antipsychotics, or neuroleptics, are commonly prescribed for psychotic symptoms and behavioral disturbances in individuals with developmental disabilities. Typical neuroleptics like fluphenazine and thioridazine have been effective in managing aggressive and self-injurious behaviors at lower doses compared to those needed for severe self-injury (Sintrel, 2019). Atypical neuroleptics such as risperidone offer a better side effect profile and have been shown effective in reducing stereotypic behaviors and aggression in this population (Vanden et al., 2018).

Clozapine, a potent antipsychotic, is reserved for severe behavioral disturbances and treatment-resistant cases in individuals with developmental disabilities due to its efficacy in managing mood and psychotic disorders (Shinerc, 2016). However, its use requires careful monitoring for potentially life-threatening side effects like neuroleptic malignant syndrome, which can occur with typical neuroleptics and has higher prevalence and severity in this population (Filling, 2019).

In conclusion, while antidepressants, anxiolytics, mood stabilizers, and antipsychotics are valuable tools in managing psychiatric symptoms and behavioral challenges in individuals with intellectual disabilities, careful consideration of their potential side effects and monitoring for adverse reactions is essential in clinical practice.

Stimulants, despite lower response rates in individuals with developmental disabilities compared to those without, have proven beneficial in treating ADHD in those with mild to moderate developmental disabilities. However, their use is limited in severe to profound cases (Gillson, 2011). Preschool children with developmental disabilities and ADHD respond similarly to methylphenidate as school-age children but may experience heightened adverse effects. Stimulants are generally cautioned against in individuals with more severe conditions due to potential exacerbation of tics, obsessions, compulsions, epilepsy, anxiety, or psychotic features.

Clinical guidelines emphasize a systematic approach when psychiatric disorders are suspected in individuals with intellectual disabilities. This includes considering psychiatric disorders as a possible cause for behavior changes, thorough assessment and diagnosis, and appropriate medication when indicated. Follow-up goals involve monitoring medication effectiveness, managing side effects, and maintaining minimal necessary medication levels, along with regular physical check-ups to assess any physiological impacts of prolonged medication use.

Children with intellectual disabilities are susceptible to a wide range of psychiatric disorders, though their clinical presentation often manifests through behavioral problems like aggression and self-injury (American Psychiatric Association, 2002). Disorders such as Anxiety Disorder, Depression, Bipolar Affective Disorder, Schizophrenia, and Psychotic Disorders are documented, albeit with variations in presentation compared to typically developing children. Commonly encountered issues include Autism Spectrum Disorder, Attention Deficit Hyperactivity Disorder, Tourette's syndrome, and specific behavioral phenotypes associated with syndromes like Lesch-Nyhan and Prader-Willi (American Psychiatric Association, 2002).

Assessment and diagnosis in this population necessitate a comprehensive biopsychosocial approach involving multiple disciplines and agencies due to their complex needs and increased risk of medical conditions. Collaboration across primary care, pediatrics, mental health services for both children and adults with intellectual disabilities, disability services, and schools is essential. However, validated assessment tools specifically for children with intellectual disabilities remain limited.

Treatment approaches, coordinated by child psychiatrists in collaboration with families, focus on adapting interventions to the child's cognitive abilities. These typically include psychoeducation for families and the community, behavioral therapy, family therapy, pharmacological interventions, social skills training, and tailored individual therapies. Pharmacological treatments target symptoms of psychiatric disorders but are always integrated with other therapeutic modalities given the idiosyncratic responses and potential for unreported side effects in this population (Edstong, 2018).

In recent years, there has been a shift from institutional to community-based models of care for children and adolescents with intellectual disabilities, facilitated by multidisciplinary teams encompassing various specialists. Despite these advancements, there remains a significant gap in addressing the serious mental health needs of children with dual diagnosis, often resulting in underdiagnosis and lack of appropriate treatment (Gernich, 2017).

2.1.5. Cognitive behavioral therapy

Cognitive-behavioral therapy (CBT) serves as a foundational approach in addressing various behavioral issues, particularly within populations prone to criminality and deviance. Programs such as Moral Reconation Therapy, Reasoning and Rehabilitation, and Thinking for a Change are prominent examples that have been extensively evaluated (Bush, Glick & Taymans, 2019). These programs, including Aggression Replacement Training, focus on reducing anger-related behaviors and criminal activities, demonstrating effectiveness in offender populations (Lipsey, Chapman, & Landenberger, 2011). In this context, the "Life Skills" program, known formally as Choosing to Think and Thinking to Choose (CtT), plays a crucial role within the APPD's high-risk supervision protocol.

CBT is particularly promising for criminal offenders with intellectual disabilities, consistently ranking among the most effective treatments in reducing recidivism rates. It targets "criminal thinking" as a pivotal factor contributing to deviant behavior in individuals with intellectual disabilities, offering adaptability across different settings and delivery by diverse professionals (Yochelson & Samenow, 2019). Meta-analyses consistently affirm CBT's positive impact on reducing recidivism.

From a cognitive perspective, offenders often exhibit distorted cognition influenced by experiences, beliefs, attitudes, and values. These cognitive distortions contribute to unrealistic interpretations, impaired problem-solving, and deficient moral reasoning (Lissa et al., 2018). Common characteristics include immature thought patterns, impulsivity, lack of empathy, and distorted views of entitlement and blame. Offenders frequently justify their behavior, misinterpret social cues, and

struggle with emotional regulation, all of which are central targets of CBT interventions (Yochelson & Samenow, 2019).

CBT focuses on altering maladaptive cognitions and behaviors through structured interventions such as cognitive reframing, behavioral conditioning, and problem-focused strategies (McLeod, 2017). By challenging and modifying distorted thoughts and behaviors, CBT aims to enhance emotional regulation, improve coping strategies, and mitigate symptoms associated with psychological disorders (Beeson & Jones, 2015; Beck, 2011). This approach underscores the reciprocal relationship among cognition, behavior, emotions, and environmental influences, facilitating adaptive changes in individuals' mental health and behavioral patterns (Schacter, Gilbert, & Wegner, 2010; Hassett & Gevirtz, 2019).

Cognitive Behavioral Therapy (CBT) consists of six phases: assessment or psychological assessment, reconceptualization, skills acquisition, skills consolidation and application training, generalization, maintenance, and post-treatment assessment follow-up (Gatchel & Rollings, 2018). The assessment phase involves four steps: identifying critical behaviors, determining whether these behaviors are excesses or deficits, evaluating their frequency, intensity, or duration, and addressing deficits by attempting to increase behaviors or excesses by decreasing their frequency, duration, or intensity (Gatchel & Rollings, 2018). During the reconceptualization phase, maladaptive thoughts are challenged, including their irrationality. The skills acquisition phase focuses on teaching individuals to avoid automatic thought patterns and implement strategies for daily obstacles (Gatchel & Rollings, 2018). In the skills consolidation and application training phase, gains are consolidated, and a summary of completed work is provided, with homework assigned to reinforce the acquired skills (Hassett & Gevirtz, 2019). The final phase, post-treatment assessment and follow-up, involves discussions about the future and how individuals will manage once treatment ends (Dagenais & Haldeman, 2012).

CBT has proven effective for various mental health diagnosis in adults, including anxiety disorders, depression, body dysmorphic disorder, eating disorders, chronic low back pain, personality disorders, schizophrenia, substance use disorders, and psychosis (Gatchel & Rollings, 2018). Research also shows success with children and adolescents, including those aged three to six years suffering from post-traumatic stress disorder. When working with anxious children and adolescents, adaptations to CBT techniques and processes are necessary (Oar, McLellan, & Rapee, 2017). Adaptations may include the use of technology, rewards, and interactive activities to increase engagement and motivation. Cognitive techniques often need simplification with concrete examples

to improve understanding, depending on the cognitive capacity of the children and adolescents (Oar et al., 2017).

CBT can be delivered in group formats or individual clinical sessions (Wergeland et al., 2014). A typical CBT program consists of 6 to 18 sessions, each lasting an hour (Hassett & Gevirtz, 2019). The National Health Service (NHS) in the United Kingdom provides a detailed explanation of clinical session components. During sessions, problems are divided into components such as thoughts, physical feelings, and actions. These components are interconnected, with each affecting the others (NHS, 2017). The process involves analyzing unrealistic or unhelpful components and their effects on the individual. Subsequent sessions focus on changing unhelpful thoughts and behaviors, with clients expected to practice their new skills (NHS, 2017). Sessions are typically scheduled one to three weeks apart, and booster sessions may be added at various stages, such as after one or three months, to observe the application of CBT skills in daily life (National Institute for Health and Care Excellence, 2008; Hassett & Gevirtz, 2019). Despite its effectiveness, CBT faces criticism, particularly regarding the lack of blinding in clinical studies, where participants and researchers are aware of the type of therapeutic intervention used (Berger, 2013).

CBT employs various methods, including relaxation training, problem-solving, stress management, and self-instructional training, to address inappropriate emotions (Beck et al., 2011). The need for adaptation and the benefits of CBT depend on the individual's level of intellectual disability, the issues addressed, and the therapist's understanding of intellectual disability. CBT has broad applicability for at-risk youth and is used in treating adults, children, and adolescents with various forms of psychopathology. Cognitive therapy aims to help individuals overcome difficulties by identifying and changing dysfunctional thinking, behavior, and emotional responses, leading to modified beliefs and improved interactions (Beck, Wright, Newman, & Liese, 2011).

CBT emphasizes the role of thinking in influencing feelings and behaviors. The theory suggests that negative or unhelpful thoughts and beliefs contribute to issues like depression, anxiety, anger, low self-esteem, self-defeating behaviors, and coping difficulties. Identifying and challenging these beliefs can help reduce distress and improve coping in everyday situations. CBT teaches and reinforces positive behaviors, helping people recognize cognitive patterns linked to their behaviors (Agbor, 2013).

According to Hajij and Khamaj (2012), CBT incorporates principles from information-processing and learning theories. It recognizes a reciprocal relationship between cognitive processes, affect, physiology, and behavior. Although CBT treatments vary in form and application, they all

emphasize changing cognitions and behaviors to reduce symptoms and improve functioning. CBT involves talking therapy to understand and address thoughts, emotions, and behaviors, aiming to alleviate symptoms by altering thinking and behavior (Sean & Rui, 2019). An essential component of treatment is helping children become aware of their negative automatic thoughts.

Clients undergoing Cognitive Behavioral Therapy (CBT) often face the challenge of recognizing their negative thoughts, which can be so ingrained and automatic that they go unnoticed. A crucial first step in CBT is enhancing clients' awareness of these thoughts through self-monitoring exercises. Beck (2010) identifies that key targets of CBT include beliefs and expectations about oneself, others, and the world. As clients become adept at recognizing these thoughts, it becomes important to teach them to evaluate and restructure their thoughts to be more rational and adaptive. This process helps clients understand how changing their thinking patterns can influence their feelings and behaviors. Although cognitive restructuring can initially be effortful and requires the therapist's guidance, clients eventually integrate this new way of thinking into their internal thought processes.

Changes in behavior can also significantly impact thinking patterns. Behavioral exercises in CBT encourage clients to adopt a scientific stance, viewing dysfunctional beliefs as testable hypotheses rather than facts. This hypothesis-testing approach involves both cognitive restructuring and behavioral exercises (Terez, 2017). The assumption underlying this scientific approach is that beliefs can be changed only with concrete evidence supporting new perspectives on oneself, the world, and the future.

A critical component of CBT is relapse prevention (Beck, 2010). Clients are encouraged to incorporate CBT techniques into their daily lives to ensure the therapy remains effective after treatment ends. Relapse prevention strategies include acknowledging that clients may face difficulties even after successful treatment. They are advised not to interpret single challenging events as failures, but rather to recognize that they have acquired valuable skills during therapy. The goal is for clients to apply cognitive and behavioral techniques independently over time, thereby supporting relapse prevention efforts. CBT's versatility allows it to be adapted for both group and individual settings and has been effectively used with children, adolescents, and adults across various cultural and socioeconomic backgrounds. It is a time-efficient treatment, typically addressing uncomplicated cases of anxiety or depression in 4 to 14 sessions (Terez, 2017). This efficiency is due to several factors. Initially, the CBT therapist conducts a thorough assessment to identify the principal problem to be addressed and develops a treatment plan outlining the expected

duration and objectives of each session. The use of CBT treatment manuals has also facilitated this efficiency by providing structured yet flexible guidelines for various psychological disorders (Itam & Eke, 2019). Additionally, CBT's focus on present issues rather than historical causes of distress allows for the development of more adaptive stimulus-response associations through cognitive and behavioral techniques.

The CBT model posits that emotional distress is not caused by situations themselves but by individuals' interpretations of those situations (Sean & Rui, 2019). CBT targets negative thoughts and unhelpful behaviors, aiming to alter how individuals view and respond to situations. This approach involves a structured, problem-oriented focus on current issues rather than past causes of distress, aiming to improve patients' present state of mind. Goals in CBT are collaboratively set, and should be Specific, Measurable, Achievable, Realistic, and Time-limited (SMART). For example, a patient with obsessive-compulsive disorder might aim to reduce the time spent washing their hands from 5 hours to 1 hour per day within three weeks of therapy (Beck, 2010). The therapist assists in prioritizing goals by breaking down problems and creating a hierarchy of smaller, manageable goals.

Sessions in CBT are structured to enhance the efficiency of treatment, improve learning, and focus on specific problems and solutions. Each session begins with an agenda-setting process where the therapist helps the patient select topics that will lead to productive therapeutic work. Homework assignments are used to extend efforts beyond sessions and reinforce CBT concepts. Ultimately, CBT aims to modify both cognitive and behavioral patterns, utilizing techniques tailored to the individual’s needs. This approach, rooted in the cognitive model developed by Beck (2010), emphasizes that emotions and behaviors are influenced by perceptions of events rather than the events themselves. The cognitive model includes core beliefs, dysfunctional assumptions, and negative automatic thoughts, which together form a framework for understanding and addressing mental distress (Beck, 2010; Eels, 2017).

Cognitive Behavioral Therapy (CBT) is characterized as an intensive, short-term approach, typically involving six to twenty sessions. It is designed to be practical, goal-oriented, and to equip individuals with long-term skills for maintaining mental health. The focus of CBT is on addressing present issues in a person's daily life. It aims to help individuals understand how their interpretations and evaluations of situations impact their emotional experiences. According to CBT, emotions are linked to one's thoughts about a situation rather than the situation itself. This concept, rooted in both Eastern and Western philosophies, became a mainstream psychotherapy approach in the early

1960s. Aaron T. Beck, a pioneer of CBT, initially described negative thinking patterns associated with depression and proposed methods for targeting and reducing these thoughts to improve mood. Beck later expanded his work to address anxiety, making CBT one of the most widely utilized therapeutic approaches (Eka, 2015).

In CBT, clients are taught to identify, question, and modify thoughts, attitudes, beliefs, and assumptions that contribute to emotional and behavioral problems. By monitoring and recording thoughts during emotionally challenging situations, clients learn how these thoughts can exacerbate issues like depression and anxiety (Delphins, 2019). The process involves recognizing distortions in thinking, viewing thoughts as ideas rather than facts, and considering situations from various perspectives. Effective CBT requires clients to openly discuss their thoughts, beliefs, and behaviors and actively engage in exercises and homework between sessions.

The primary objectives of CBT include fostering motivation for abstinence, particularly in the context of substance use. Techniques such as functional analysis help clients understand the consequences of substance use, thereby enhancing their motivation to quit (Beck, 2010). CBT also focuses on teaching coping skills to help clients identify high-risk situations for substance use and develop alternative coping strategies. Another goal is to alter reinforcers by replacing habits associated with substance use with positive activities and rewards (Famseed, 2018). CBT also aids clients in managing painful emotions, such as urges to use substances and feelings of depression or anger. Furthermore, it improves interpersonal relationships and social support by training clients in effective interpersonal skills and strategies to build supportive networks.

The overall aim of CBT is to help clients replace distorted and unrealistic thoughts with more realistic and adaptive ones. The therapy begins with educating clients on the connections between situational triggers, automatic thoughts, and emotional, behavioral, and physiological reactions, based on the cognitive model (Ukam, 2014). Initial stages involve creating homework assignments and behavioral experiments to help clients identify, monitor, and evaluate the validity of their automatic thoughts, leading to symptom relief. Subsequent stages focus on identifying and modifying intermediate and core beliefs that underlie automatic thoughts and predispose individuals to dysfunctional thinking. The final stages emphasize relapse prevention and empowering clients to function as their own therapists.

2.1.6. Family therapy

Salvador Minuchin is the founder of family therapy, which has been a leading model in family therapy since its inception. Drawing from the systemic model, family therapy emerged in the 1960s

and 1970s as a new model which contained practical ideas that were easily transferable to the therapy setting (Nichols and Schwartt, 2018). Of great importance were the constructs that Minuchin formulated and expanded upon. Today, family therapy is still one of the most widely used models (Powell and Dosser, 2018).

Family therapy focuses upon the person within the system, rather than solely on the individual (Colapinto, 2014). The major thesis of this approach is that "an individual's symptoms are best understood when examined in the context of family interactional patterns. This idea reflected the shift that occurred in family therapy during the 1980s which was very different from the prevailing traditional mental health model which focused upon individual pathologies. Systemic therapy recognizes that "man is not an isolate" (Huert, 2014). Therefore, within the family system, each member affects the other members. This holds true for the larger society as well. People become who they are through their transactions with their environment (Powell and Dosser, 2018).

It is an approach that is founded upon the notion of the "interrelationship of the whole (NapolielIo and Sweet, 2012). The individual, while a separate being, is also a part of the whole family. As well, the influence of each person's behaviour within the family cannot be separated from other family members' behaviours. The concept of complementarily encapsulates this idea that behaviour is circular in the sense that it is sustained by each member of the family. In other words, any behaviour is contingent on someone else's behaviour.
Colapinto (2011) states that family members mutually accommodate in such a way that one develops selective aspects of himself or herself, while the other develops a complementary trait. For example, a husband who complains that his wife never listens to him also has a set of behaviours that reinforces his wife not listening. This concept can be emphasized in therapy sessions by asking family members to help each other change and then congratulating the other members for changing (Nichols and Schwartz, 2018). This underscores the interrelatedness of the family.

Trusted friends are deemed to be important sources of information for confirming beliefs. Students can focus on what their friends are saying to gain a better understanding of the situation, rather than judging the accuracy of the source. Resil (2010) supports the influence of each of these motives proposed that friends influence one another in two ways as given in found peer pressure is often functioned in a positive rather than a negative manner. Friends of persons with intellectual disability may discourage negative behaviour, drug and alcohol use, and encourage prosocial behaviour. How

well a child makes the adjustment to community living can have implications for their ongoing social, emotional/behavioural and academic progress.

Family therapy is also unique in that it focuses on the present rather than on the past (Colapinto, 2012). The rationale behind this idea is that past dysfunctions are manifest in current functioning; hence a change in current functioning could alter embedded dysfunctional behaviour (Minuchin, 2010). Therefore, therapy sessions center around current problems rather than past concerns. History is examined only insofar as it affects the present (Aponte, 2012). It also attributes problems to dysfunctional family structures and the rigidity that results from these structures. A solution is sought in the modification of the family structure. According to Colapinto (2012**),** altering that structure requires a change in the position of family members. For example, a family may have a situation in which the father and daughter are extremely close and frequently side against the mother. In order to change this pattern, the father and mother must re-establish the boundary around their parental subsystem. Colapinto (2012) describes change as an increase in the complexity of the structure - an increment in the availability of alternative ways of transacting. Thus, the goal is to make the family more flexible in its patterns of interacting and responding. Minuchin and Nichols (2013) describe the family as being naturally inclined to continue with familiar patterns of interacting even though developmental changes have made these patterns less functional. The therapist must undermine this homeostasis and move the system towards better functioning (Minuchin and Fishman, 2014). Accordingly, change is regarded as being necessary for growth. Powell and Dosser (2012) highlight two important ways in which the assumptions of systemic therapy are different from other family therapy approaches. These are:
(1) families possess the skills to solve their own problems, but for some reason or other do not utilize them. For this reason, a family may require a therapist to help turn its attention to and assist in maturing these skills; and (2) family members generally act with good intentions; sometimes it is in carrying out these good intentions that problems may result. As such, there is no blame to be laid and no accusations to be made. Both of these concepts emphasize the focus that systemic therapy places on the strengths of the family.

Family therapy is also influenced by the life cycle model (Nichols and Schwartz, 2018). The family is seen as changing with the different demands that are placed on it. McGoldrick (2019) observes that the family moves through developmental stages, each one requiring restructuring. Nichols and Schwartz state that "it is crucial not to mistake normal family development and growing pains for pathological patterns. For example, as a child matures, his or her parents must adapt their parenting

style to accommodate their child's growth. The same style will not work for both a three-year-old and a twenty-year-old. Problems occur when the family fails to "readjust its structure at one of life's turning points" (Nichols and Schwartz, 2018). Hence, it is not the presence of conflict that defines a family in crisis; it is the family's failure to accommodate change as required.

Nichols and Minuchin (2019) state that family therapy is an aggressive intervention because it challenges system to change the negative interaction within it that is affecting the child's motivation to learn as expected. Using this approach requires a therapist who is willing to challenge families bluntly enough to push them past habit and avoidance but sympathetically enough for them to accept challenge. This requires that the therapist move beyond the discussion of problems and focus on clarifying what things families want to change. Colapinto (2011) describes the therapist as taking an active stance in the therapy process, although he or she does vary the intensity of his or her involvement over the course of therapy. Interestingly, systemic therapy is viewed as more appropriate for a single therapist because the techniques used are difficult to coordinate with another therapist.

Friesen (2015) outlines five goals of systemic therapy. These are:

i. Creating an effective hierarchical structure in the family.
ii. Helping parents to complement each other in their roles as parents in order to be an effective parental subsystem.
iii. Aiding the children to become a subsystem of peers.
iv. Increasing the frequency of interactions and nurturance, if the family is disengaged.
v. The differentiation of family members, if the family is enmeshed.

The significance of each of these goals will become apparent throughout this section

Loveret and Kein (2013) noted that family therapy is an approach to helping people with psychological difficulties which is radically different from other therapies. It does not see its work as being to cure mental illnesses that reside within individuals, but to help people to mobilize the strengths of their relationships so as to make disturbing symptoms unnecessary or less problematic. It draws on a number of theories and models of practice (Dallos and Draper, 2015). While some systemic therapists adhere to specific models of therapy, others work integratively (Dallos and Draper, 2015). Models of systemic therapy found to be effective include Multi-Dimensional Family Therapy, Multi Systemic Therapy, Functional Family Therapy and Brief Strategic Family Therapy (Stratton, 2011). The key defining feature of family therapy as used in this research is that it works within the context of 'immediate' family relationships of parents and their children. Family therapists draw on a number of common skills and methods including knowledge of family

processes, being able to understand and work with the influence of family traditions, helping families to explore new ways of relating to each other and exploring the existing resources within the family to support each other (Stratton, 2011).

Family therapy is based on the systemic theory of family functioning. The family as a system that influences all its members has its own unique characteristics and properties that emerge and are apparent only when family members interact. In system therapy, Dallos and Draper (2015) noted that this view of the family system is evident in the following assumptions: 1) The family is a system with interdependent/interrelated parts; 2) The behavior of one family member can only be understood by examining the context (i.e., family) in which it occurs; 3) Interventions must be implemented at the family level and must take into account the complex relationships within the family system; 4) Families are nested within complex social systems; 5) Child symptoms are associated with maladaptive patterns of social interactions with the family/and or between child/family and social ecology.

Social interactions are defined structurally. Understanding the structure of the family helps us to explain the mechanisms by which the behaviors of family members are interdependent. In family therapy, the view of structure is evident in the following assumption: Repetitive interactions (i.e., ways family members behave with one another) are either successful or unsuccessful in achieving the goals of the family and/or its individual members. According to Bowen (2010) instead of seeing individuals as an emotional unit of his own, or as a separate entity and the individual as the basic unit of treatment, Bowen deemed that individual functioning should be understood in the context of his relationships, that each person's emotional functioning is closely interconnected with each other, with reciprocal impact on each other. Rather, promoting authoritative parenting skills (warmth, acceptance, demanding behaviors, clear expectations (Baumrind, 2011) and a more age-appropriate, mutual communication, serves as one primary treatment goal. In addition, reframing and enactment remain primary intervention strategies.

Hugh (2015) noted that the force towards togetherness drives our need for social support, affection and love. In the striving for fulfillment of the togetherness need, there grows the tendency to expect self and others to be alike - to think alike, to act alike, and to feel alike e.g. acting on behalf of the others, sacrificing in order to get other's approval, dominating over others so that others will act in accordance with one's ideas. When chronic anxiety is high, the force towards togetherness will be strong, and symptoms will emerge. Like other family approaches to the treatment of adolescent problem behavior), family therapy also acknowledges the critical influence of other relevant

systems that influence children and adolescents—most prominently, the school and peer systems. Inmate with dual diagnosis may often have considerable difficulties in the community. They frequently are excluded at school or from community participation, and many perform poorly behaviourally (Oge and Ija, 2014). Interactions between the youth and school personnel are hostile, defiant, and there is rejection on both sides. Unfortunately, many parents do not have the skills needed to effectively minimize the damage that is created at school as adolescents display problems at school. In family therapy, a considerable amount of effort is devoted to repairing these relationships and reconnecting the adolescent (and her/his parents) to school. Much of this work involves building parents' skills and improving parent-school connections to maximize the teachers' and parents' ability to function as a leader in this aspect of their child's life.

Engaging adolescents and family members as well as the teachers into treatment is usually a challenge in itself. The first step in working with a family and the teachers is to establish and build a working therapeutic relationship. The construction of this relationship begins from the very first contact and that the ultimate goal of the joining process is for the therapist to form a new system – a therapeutic system, that is made up of the "whole family" and the therapist (Szapocznik, Hervis and Schwartz, 2013). Joining the family is a strategic step which requires certain maneuvers that place the therapist in a therapeutic leadership role. In joining the therapist exercises what may be referred to as "political skills". Joining must occur at two levels: at the individual level with each participating family member; and at the family level in which the therapist must recognize, respect, and maintain the family's characteristic interactional patterns. The desired qualities of the therapeutic relationship are respect, empathy, and commitment to working toward achieving the goals formulated between the therapist and the family. Strategies suggested to maintain the quality of the therapeutic relationship in family therapy include validating or supporting family members and teachers, formulating personally meaningful goals, and attending to each client's experience (Diamond, Hogue, Liddle, and Dakof, 2011). By demonstrating respect and acceptance of all family members and teachers, establishing a working alliance with each family member, and blending with the family, the therapist is finally accepted as a "special temporary member" of the family for the purpose of treatment.

The therapist needs to have an understanding of how the family is organized and works her/his way into the family through the existing structure. In joining, the therapist should not rush to change the family system. Instead, during joining the therapy, therapist earns her/his way into the family system. Challenging the existing structure prematurely will result in a failure to engage a family

into treatment (Ruete and Gulp, 2013). Besides affording each family member a personal experience of the therapist's regard and commitment to her/his wellbeing, it is of crucial importance that the family perceive the therapist as the leader of the therapeutic system. Families come for help with problems that they have not been able to resolve by themselves. They expect, need and are entitled to a therapist who will "lead" them in a new and more effective direction. Therefore, in the therapeutic system, the therapist is both a member and its leader. To earn this position of leadership, the therapist must offer clear rules that serve the needs of all family members, and the therapist must show respect for all family members, and in particular, for powerful family members.

The main goal in treatment is to help the family and the community change the maladaptive interactional patterns that are identified during the diagnostic process. The therapist plans how s/he will intervene to help the family and community move from its present way of interacting and the undesirable symptoms they produce, to a more adaptive and successful way of interacting that will eliminate these symptoms.

2.1.7. Correctional special education

Those entering prison systems worldwide have, on average, lower levels of education than the general population (Goffic, 2019). Correctional education often aims to make the inmate more employable after release. Administrating and attending educational programs in prisons can be difficult. Staff and budget shortages, a lack of educational resources and computers, and the transfer of prisoners between facilities are common barriers. Prisoners may be reluctant to participate, often due to past educational failures or a lack of motivation. Indeed, correctional special education programs are integral to the rehabilitative goals and their importance cannot be understated. Education programs are part of prisons' efforts to promote rehabilitation, one of the major goals of the criminal justice system (Ficher, 2016). Offenders with dual diagnosis can rehabilitate themselves by "earning to read, write, compute, and effectively communicate" which "prepares the prisoners for life upon release."21 The Federal Bureau of Prisons has made an effort to promote rehabilitation through education in federal prisons by requiring, for the most part, inmates to be at a high school level of reading, writing, and math. If inmates, at the time they enter prison, do not meet this standard, they are enrolled in an adult basic education.

Education and training have been a crucial part of the penal system for several hundred years. The goal has always been to socialise the inmates and provide them with the knowledge to enable them to manage on their own and avoid further crime after serving their sentences. A significant

proportion of youth with dual diagnosis in the juvenile justice system have education related disabilities and are eligible for special education and related services under the Federal Individuals with Disabilities Education Act (IDEA). While 8.6 percent of public school students have been identified as having disabilities that qualify them for special education services (U.S. Department of Education, 2018), youth in the juvenile justice system are much more likely to have both identified and undiscovered disabilities. For example, youth with learning disabilities or an emotional disturbance are arrested at higher rates than their nondisabled peers (SRI International, Center for Educational Human Services, 2017), and studies of incarcerated youth reveal that as many as 70 percent suffer from disabling conditions.

Information about a youth's disability may be relevant at every stage of a juvenile court case. It may help to determine whether formal delinquency proceedings should proceed or suggest important directions for investigation and case strategy. Information about the disability often helps to explain behavior in a way that facilitates constructive intervention, and it is essential to arriving at a disposition that will both meet the youth's rehabilitative needs and comply with IDEA requirements. Helping youth to reach their educational potential by protecting their rights under IDEA can give them the tools they need to succeed in life. In fact, many of the behavioral and educational issues addressed through the special education system closely parallel issues encompassed in the juvenile court disposition process (Chesapeake Institute, 2014). In ensuring that disability-related needs are identified and met, IDEA may play a significant role in reducing delinquent behavior. This Bulletin, directed to judges, attorneys and advocates, probation officers, educators, institutional staff, mental health professionals, and service providers, seeks to heighten awareness of special education issues in the juvenile justice system and ensure that youth with disabilities receive the services they need. The Bulletin summarizes pertinent provisions of Federal law related to special education, discusses how the special education process and information about disabilities may be useful in juvenile delinquency proceedings, and examines special education in the context of juvenile and adult institutions.

Correctional education encompasses various educational activities conducted within prison environments, including basic literacy programs, secondary school equivalency programs, vocational education, and tertiary education. Additionally, rehabilitation programs, physical education, and arts and crafts activities can also be categorized under prison education. Typically, these programs are provided, managed, and funded by the prison system, although inmates may need to finance distance education programs (Odson & Herich, 2016). The history and current practices of correctional education vary significantly across different countries.

Educational services provided to students based on their Individualized Education Program (IEP) may include a range of interventions and supports. These services might encompass educational assessment, speech and language therapy, physical therapy, occupational therapy, instruction and assessment aligned with the Standards of Learning (SOL), remedial instruction, Adult Basic Education (ABE) or General Education Development (GED) instruction, IEP-based instruction, social and emotional learning with positive behavioral interventions and supports, career awareness, pre-vocational skills, functional life skills, transition assessment and services, and any other services specified in the IEP.

When a student with a dual diagnosis enters a jail, staff must first verify if the student has an existing IEP. If an IEP is in place, the school division corresponding to the jail's location is responsible for ensuring the continuation of the IEP's implementation, although modifications might be necessary due to the jail environment (Odson & Herich, 2016). If the student is incarcerated outside the jurisdiction of their legally responsible school division, collaboration between the two school divisions is encouraged to best address the student's needs. This may include expediting the transfer of records and credits and discussing diploma options.

Students aged 18 through the age of eligibility remain entitled to special education and related services if, prior to their incarceration in an adult correctional facility, they were identified as students with disabilities. However, the obligation to provide a free appropriate public education does not extend to students in this age range who were not identified as students with disabilities and did not have an IEP before their incarceration (Kerpa, 2019). This exception does not apply to students with disabilities aged 18 through 21 who were identified as such and received services according to their IEPs before leaving school or those who had been identified as students with disabilities even if they did not have IEPs in their last educational setting.

Each school division maintain an active and continuing student find program designed to identify, locate, and evaluate those students residing in the jurisdiction who are under the age of 18, who are suspected of having a disability, who need special education and related services, and who are incarcerated in a local or regional jail in its jurisdiction for more than ten days. In those instances where students under the age of 18 in local and regional jails are suspected of having a disability, it is the responsibility of the school division staff to follow procedures for the determination of eligibility for special education services as required (Cosin, 2019). When a student is suspected of having a disability and the eligibility determination has not been completed prior to discharge, school division staff refer the student to the receiving school division or educational agency. The

educational evaluation data pertaining to the student are be forwarded with the referral. In all instances, procedural safeguards as required by law will be afforded to protect the rights of the parent and the student or the adult student.

IDEA's comprehensive system of identification, evaluation, service delivery, and review has special relevance for juvenile justice professionals. The purpose of the special education system, like the juvenile justice system, is to provide individualized services designed to meet the needs of a particular youth. The enhanced behavioral intervention and transition service needs requirements in the 1997 IDEA amendments bring special education goals even closer to those of the juvenile court. Moreover, the careful documentation of service needs and ongoing assessment of progress required by IDEA bring valuable informational resources to juvenile justice professionals. This section presents a brief overview of how special education information may be helpful as cases make their way through juvenile court. Some of the issues discussed, such as insanity or incompetence, arise only occasionally. Others, such as the impact on disposition of whether a child has a disability, are relevant in every case in which a delinquent youth is eligible for special education services.

Intake and Initial Interviews

The short timeframe for juvenile court proceedings leaves little room for missed opportunities. Juvenile justice professionals must be alert from the earliest moment for clues to the youth's special education status or existing unidentified disabilities. This process, which should become part of the standard operating procedure, includes carefully interviewing the youth and his or her parents, routinely gathering educational records, procuring examinations by educational and mental health experts, investigating educational services at potential placement facilities, and coordinating juvenile court proceedings with the youth's IEP team (Labora, 2021). Under the 1997 IDEA amendments, whenever a school reports a crime allegedly committed by a youth with a disability, school officials must provide copies of the youth's special education and disciplinary records to the appropriate authorities to whom the school reports the crime, but only to the extent that the Family Educational Rights and Privacy Act (FERPA) permits the transmission. FERPA allows school officials to transmit school records to law enforcement officials only if parents' consent in writing to the transmission and in certain other narrowly tailored situations.

This requirement should help ensure that, at least in appropriate school-related cases, special education history, assessments, and service information are readily available early in the court process.58 Juvenile justice professionals can learn to recognize disabilities by carefully reading the legal definitions of disability. It is important to understand that youth may have a variety of

impairments that are not immediately apparent. Numerous checklists and screening instruments are available to help recognize signs of disabilities and to determine eligibility for special education services (National Council of Juvenile and Family Court Judges, 2019). If circumstances suggest the need for an eligibility evaluation, modification of a previously existing IEP, or some other exercise of the youth's rights under special education law, juvenile justice professionals should ensure that appropriate action is expeditiously taken. They should request that parents give written consent for the release of records and should submit a written request for information, evaluation, or review to the local education authority.

Juvenile justice professionals could start by contacting the LEA to obtain its policies and procedures for providing special education services to youth in the juvenile justice system. Some districts have designated an individual to deal with compliance issues, and that person may be helpful in expediting or forwarding requests to the right person or agency. Most jurisdictions have a number of other groups that can provide advocacy or other assistance in navigating the special education system. Protection and advocacy offices, special education advocacy groups, learning disabilities associations, and other groups providing support or advocacy for particular disabilities may greatly assist juvenile justice professionals. Unfortunately, youth with disabilities are detained disproportionately (Leone et al., 2015).

Experts posit that one reason for this is that many youths with disabilities lack the communication and social skills to make a good presentation to arresting officers or intake probation officers. Behavior interpreted as hostile, impulsive, unconcerned, or otherwise inappropriate may be a reflection of the youth's disability. This is another reason why it is important to establish the existence of special education needs or suspected disabilities early in the proceedings. Juvenile justice professionals must be sensitive to the impact of disabilities on case presentation at this initial stage and work to dispel inaccurate first impressions at the detention hearing. In some cases, it may be appropriate for the court to order the youth's release to avoid disrupting special education services. This is particularly true if adjustments in supervision (e.g., modification of the IEP or behavioral intervention plans) may reduce the likelihood of further misbehavior pending the jurisdictional hearing. Similarly, if there are early indications that a special education evaluation is needed, it may be important for the youth to remain in the community to facilitate the evaluation (Edhert, 2019). Many jurisdictions have home detention programs that facilitate this type of release by imposing curfews or other restrictions on liberty that allow the youth to live at home and attend school pending the outcome of the delinquency proceedings.

A teacher, specialist, or intake officer may screen a student to determine if they have previously received special education services or if a student under the age of 18 is suspected of having a disability (Dwirtich, 2018). This screening process, however, is not considered an evaluation for eligibility for special education and related services, and therefore, does not require consent. Although the screening should not rely solely on self-reported data, a personal interview with the youth upon admission can provide valuable information. Helpful questions to elicit information about prior special education history include: the name of the last school attended, the time since the last attendance, the last grade level completed, the number of students in previous classes, favorite and troublesome subjects, whether extra help was sought from a teacher, attendance in special programs or schools, and any previous enrollment in special education or possession of an IEP.

All relevant records should be obtained and reviewed, including educational records from schools, evaluations by Community Service Boards (CSBs), and correctional facilities. In obtaining and reviewing these records, the school division must ensure procedural safeguards, such as written notice when appropriate, confidentiality, and proper maintenance of the student's educational record. Correctional education, a component of the prison reform movement, serves as a means to observe and promote human progress. It is intended to equip prisoners with skills that will aid their reintegration into society and improve their chances of securing meaningful, long-term employment upon release (Rhode, 2014). The correctional education movement, which began in 1789 with William Rogers at Philadelphia's Walnut Street Jail, operates on the belief that attitudes, ideas, and behaviors can be corrected and that individuals can progress to higher levels of awareness (Grehring, 2012). To redirect ex-offenders away from crime, they require transitional services such as life skills training, anger management, basic education, job training, and placement over one to three years. Ayu (2014) asserts that prisons should function as centers of information rather than mere punitive institutions. The primary goal of prison education is to enhance employment prospects for ex-offenders and thus reduce recidivism. Ostreicher (2013) supports the view that preparing prisoners for release is crucial for public safety, achievable through education that improves communication and vocational skills.

Correctional special education, as defined by Atchem (2014), involves teaching inmates self-management and social abilities through formal or informal education. According to Choksi (2012), socio-psychological skills acquired through such education include communication, decision-making, self-conception, self-adjustment, assertiveness, and self-determination. Individuals who acquire these skills through formal or non-formal education tend to exhibit better behavioral

articulation and manage the psychological impacts of incarceration more effectively. Some young prisoners may lack formal education or apprenticeship experience, performing menial tasks for sustenance (Mikula, 2018). These individuals often form gangs, where group influence can override personal rationality. Non-skilled prisoners may include orphans or those abandoned by caretakers, resulting in a lack of socio-psychological orientation and increased susceptibility to negative influences. Youthful exuberance may manifest in behaviors such as fighting, stealing, aggression, and, in extreme cases, criminal activities (Chawki et al., 2015). Such behaviors can lead to imprisonment due to ignorance of the law and societal norms (Nicholas, 2019). Without social intervention, released prisoners may struggle to integrate into society, potentially reconnecting with criminal acquaintances and reoffending (Gumi, 2014).

The necessity of correctional special education is multifaceted. Education is not solely about knowledge or skill acquisition but also personal fulfillment. It enriches lives, broadens perspectives, and fosters participation in public activities such as volunteering and community involvement (Vianet, 2019). Families, communities, and society benefit from individuals engaged in education, both within and outside prison settings.

Correctional special education programs may include: Regular classroom and consultative services, where inmates with dual diagnosis attend regular classes and receive guidance from a regular teacher, supported by expert advice from specialists in intellectual disabilities on pedagogy and classroom management. Itinerant programs, designed for inmates with dual diagnosis, involve visits from itinerant teachers with specific expertise. These visits, scheduled to avoid conflicts with the inmate's activities, provide targeted professional services or remediation in areas such as physical therapy, speech therapy, occupational therapy, or health-related services.

Individualized education programme (IEP)

The program emphasizes individualization, a special method of educating inmates with dual diagnosis. Individualization in this context does not imply that inmates receive individual instruction in small classes; rather, it means that each inmate is allowed to progress at their own pace according to their unique growth pattern. This approach can be facilitated through group participation opportunities that foster the development of appropriate social attitudes (Duell, 2018). It is crucial to understand that an Individualized Education Plan (IEP) is not an independent program but a complementary component for each inmate in the aforementioned programs. The IEP addresses the individual needs of inmates with dual diagnosis, rather than those of a group.

According to the Ontario Ministry of Education (2004), an IEP is a written plan describing the special education program and/or services required by a particular inmate, based on a comprehensive assessment of the inmate's strengths and needs that impact their learning and demonstration of learning. It records the accommodations necessary for the inmate to meet their learning expectations, considering their identified strengths and needs. The IEP is a working document that outlines modified learning expectations from the age-appropriate grade level in a particular subject or course, as defined in the Ministry of Education's curriculum policy documents. It also identifies alternative expectations, if required, in areas not covered by the curriculum. Additionally, the IEP specifies the knowledge and skills to be assessed and evaluated for reporting the inmate's achievement of modified and/or alternative expectations and serves as an accountability tool for the inmate, their parents, and all parties involved in supporting the inmate's educational progress (Oldobo, 2019).

Key information included in an IEP encompasses the strengths and needs related to the student's learning, particularly if the student has been formally identified as exceptional. It includes relevant assessment data that supports the identification of exceptionality or the need for special education programs and services. Any specialized health support services necessary for the student to attend school should be noted. The IEP lists all subjects or courses where the student requires modified expectations and/or accommodations and any alternative programs. It details the accommodations needed to facilitate learning and the demonstration of learning. The student's current level of achievement in each modified subject or course, or alternative program area, should be documented. Annual program goals and learning expectations for each reporting period in each modified subject or course, and/or alternative program area, are outlined. The assessment methods used to evaluate the student's achievement of modified or alternative expectations are specified. The IEP also provides a clear indication of how student progress will be reported to parents. Documentation of consultations with parents and the student (if they are 16 or older) during the development of the IEP and subsequent reviews is required, along with records of reviews and updates to learning expectations by school staff. If necessary, a transition plan should also be included.

Special education is designed to make the general curriculum accessible. The usefulness of correctional special education depends on how much it is made interesting, accessible and tailored to the needs of the inmate (Dholic & Sunerch, 2019). Thus, the hallmark of correctional special education for inmates with dual diagnosis is to provide education in an adapted format to accommodate the social, cognitive, behavioural and mental health needs of these inmates. This ensures that the curriculum is adapted and made accessible to them. Over the last few years, there

has been concerted effort in special education to promote curricular materials with build-in adaptation, particularly in digital media, that are flexible and customizable, known as Universal Design for Learning (UDL) (Jepson, Holgate, Feb & Brede, 2010). The etymology of Universal Design for Learning (UDL) is found in the early civil rights and special education legislation that emphasize the right of all learners to a free, appropriate public education in a least restrictive environment (Hitchcock, Meyer, Rose & Jackson, 2005).

The National Centre for Accessing the General Curriculum (NCAGC) (2005) states that after the passage of the American with Disabilities Act (ADA) in 1990s, schools and other public buildings were retrofitted with ramps and other architectural features to provide physical access. At the same time, technological advances (digital texts) allowed alternative to one-size-fits-all academic materials that used only one fixed medium - print. Access to computers was becoming more common in schools, and assistive or adaptive technologies that allow educators and learners to manipulate text resulted in the availability of flexible instructional options. Now, text could be easily enlarged, simplified, summarized, highlighted, translated, converted to speech, graphically represented and supported through accessible digital materials.

Adapting the curriculum through the broader lens of Universal Design for Learning (UDL) is crucial for improving outcomes for individuals with dual diagnosis in correctional facilities. This approach involves integrating principles into the development of goals, instructional methods, classroom materials, and assessments to ensure equitable access to learning opportunities for these individuals. To accommodate diverse learning needs, it is essential to provide multiple and flexible methods of presentation. For individuals with dual diagnosis, this means using both high-tech methods, such as digital books, specialized software, and websites, and low-tech methods, including handouts, overheads with highlighted text, and color-coded cards. These varied approaches help cater to different learning preferences and improve access to information.

Equally important is offering multiple and flexible means of expression to allow individuals with dual diagnosis to demonstrate their learning through diverse methods. High-tech tools like online concept mapping software can help create visual representations of knowledge, while data collection tools can track progress. Low-tech methods might include cooperative learning, scaffolding, think-aloud techniques, and oral tests, providing alternative ways to showcase understanding (Filton, 2017). Engagement is a key factor in motivating learners with dual diagnosis. Providing multiple and flexible means of engagement helps tap into their varied interests and appropriately challenges them. Low-tech strategies for engagement may involve games, songs,

performance-based assessments, and peer tutoring, all of which can enhance motivation and participation in learning activities.

UDL addresses three key learning networks within the framework of curriculum adaptation, which includes goals, materials, methods, and assessments (Hitchcock et al., 2015). These principles are: providing multiple means of representation (recognition network), providing multiple means of action and expression (strategic network), and providing multiple means of engagement and motivation (affective network). According to Trill, Lewinsky, and Corner (2013), adapting the general curriculum through UDL aims to create expert learners—those who can assess their own learning needs, monitor their progress, and maintain interest, effort, and persistence. Traditional curricula often require individuals to adapt to the material, rather than adapting the curriculum to meet their diverse needs. Tate and Lire (2018) argue that UDL is essential for developing strategies to identify and overcome barriers within existing curriculum materials and delivery methods.

UDL offers a framework for designing educational environments that support individuals with dual diagnosis in correctional facilities, helping them gain knowledge, skills, and enthusiasm for learning. This approach is inclusive of all learners, regardless of ability, disability, age, gender, or cultural background (Adonis & Ute, 2015). According to the National Instructional Materials Accessibility Standard (NIMAS) (2005), curriculum adaptation provides a blueprint for designing goals, methods, materials, and assessments that address diverse learner needs. Trill, Lewinsky, and Corner (2013) emphasize that UDL addresses and mitigates primary learning barriers by avoiding a one-size-fits-all approach, which can create unintentional barriers for individuals with dual diagnosis and even for those without disabilities (Lord & Toper, 2015).

Curriculum adaptation helps address the challenges faced by individuals with dual diagnosis by recommending flexible instructional materials, techniques, and strategies. NIMAS (2005) highlights that learners with intellectual disabilities benefit from flexible curricula and varied instructional practices, materials, and activities. All learners, regardless of disabilities, benefit from diverse ways of presenting content and options for demonstrating what they know. To effectively adapt the curriculum for individuals with dual diagnosis in correctional facilities, implementers should use multiple strategies to present content. These strategies include case studies, music, role play, cooperative learning, peer mediation, hands-on activities, field trips, guest speakers, web-based communication, and educational software. For example, students might role-play significant events to gain a better understanding. Additionally, providing a variety of learning contexts, such as individual, pair, group work, and peer learning, can be beneficial. A range of materials should be

used, including outlines, videos, podcasts, PowerPoint presentations, realia, manipulatives, community resources, and e-books.

Providing cognitive support is also crucial. This includes offering organizing clues, presenting background information through non-lecture-based materials like pictures and videos, and scaffolding learning with syllabi, outlines, summaries, study guides, and PowerPoint slides. Instruction should cater to various learning styles by incorporating movement into learning, delivering information both orally and in writing, and using large visual aids, such as slides, graphics, and charts, to engage learners both acoustically and visually (Cuff & Ultret, 2019). Assessment opportunities should be flexible, allowing individuals with dual diagnosis to demonstrate their knowledge through visual and oral presentations, in addition to traditional written assessments. The curriculum for these individuals should focus on essential areas such as self-help skills, communication skills, social skills or socialization, social adjustment, community living, economic usefulness, conflict resolution, community participation, and labor market participation.

2.1.8. Vocational skills training

Vocational training can be described as any form of educational activity whose primary purpose is to prepare beneficiaries to acquire skills for gainful self-employment, self-sufficiency and poverty alleviation. Vocational training in the word of Olaitan (2018) is a form of education that primarily concerns the development of occupational skills needed by an individual as a preparation for work. Vocational training according to Davis et al (2014), can be offered in various trade industries, including barbering, building maintenance, carpentry, electrical trades, painting, plumbing, horticulture, custodial maintenance, upholstery, auto detailing, masonry, welding, and heating, ventilation, and air conditioning. The type of vocational skills acquisition programmes available in a prison will depend on inmates' interests, availability of teaching staff, and funding. It is worth mentioning that the available VST programmes in most Nigerian Prisons according to Talba (2015) include agro-based skills acquisition, carpentry and joinery work, dress making, hair dressing, knitting, laundry and dry-cleaning services, metalwork, soap and pomade making skills acquisition programmes. This is to enable prison inmates acquire skills especially in the area of arts and craft and to become self-reliant after their jail term and to keep them away from re-entry into prison in the near future.

The primary goal of vocational skills acquisition programme in prisons is to help offenders develop marketable job skills upon release to the community. Certificates or college credit can be earned for some vocational programmes in prisons. Hence, for this study, vocational skills training programme

is any form of educational programme whose primary purpose is to prepare prison inmates for employment in recognized occupations after their jail term.

Vocational training is one of the major tools for reformation and rehabilitation of the convicted prisoners in correctional Institutions. In many part of the world, the vocational training programmes provide opportunities for the prison inmates to engage themselves in fruitful pursuits during the term of their sentence in jails (Vuala, 2010). Such training not only provides prison inmates value for their work but also helps in developing the prisoners learning skills which can enable them to follow a vocation after release from the jail. Given that many prisoners lack the employment skills needed to join the workforce on release, policy-makers often contend that education in prison should primarily prepare prisoners for employment, with a particular focus on vocational skills. Others reject this: some argue that education in prison should be based solely on an adult education approach; some believe that it should mirror programmes of education offered to the wider community outside the prison context, and some make the case that education in prison should be viewed as part of a social justice framework. And in light of the large numbers of people in prison who come from marginalized and minority communities, some scholars believe that education in prison should be part of a consciousness-raising process (Kubertz, 2016).

The most dominant perspective expounded by political and penal administrators internationally is that vocational education should be used as a tool for rehabilitation (Bozick et al., 2018). This approach tends to prioritize vocational education in prison not as a right, but as a means to an end, the goal being rehabilitation. Prominent in this understanding of vocational education as a means of rehabilitation is the promotion of vocational and skills training designed to prepare prisoners for employment on their release. Understandably, governments and penal policy-makers are keen to promote this approach to education, which can upskill prisoners, prepare them for the workforce and, it is hoped, prime them for employment that will encourage them to move away from a life of crime. Vocational skill training are programmes that help rehabilitate inmates with dual diagnosis and in providing them with a good quality of life after prison. Bloom (Juich & Okolu, 2014) noted that VST is instrumental in helping inmates to cope and integrate back into the community. It is majorly achieved by providing the inmates with a platform to gain meaningful employment and increase their chances to regain financial independence after incarceration. According to Chikadzi (2021), there are several challenges that inmates with dual diagnosis face from within the society. Upon release, it is presumed that formerly incarcerated individuals have reformed and recovered from their criminal behavior.

The prison in question has been a subject of debate among various scholars in the social science discipline. The concept has been treated from various perspectives, which include structural and functional dimensions. For instance, Abba and Mbagwu (2016) described a prison as a physical structure in a geographical location where a number of people living under highly specialized condition adjust to the alternatives presented to them by the unique kind of social environment. Similarly, Abba (2016) conceived prison as a place where people are highly secluded from the rest of the world with entirely new order of control. The above conceptualizations as advanced by scholars are limited towards an understanding that a prison is a physical environment and could be described geographically or spatially. Quite different from the physical conception, there are other schools of thought that are based on function, framework and label. From the functional perspective, a prison is perceived as a place to punish offenders, where criminals that are removed from the society are dumped to protect the society from further criminal activities of the offenders: and a place to rehabilitate and teach offenders to be law abiding and productive after their release.

Types of vocational training in prisons:

According to Abba and Sanda, (2015), various vocational training can be provide to the prisoners such as construction work, masonry, carpentry, electric fitting, tailoring, fabrication of ready-made garments, leather work, driving, prison servicing, agriculture, horticulture, dairy, poultry, floriculture, maintenance of diesel engines, maintenance of electric pumps, tractor repairing, automobile servicing and repairing, cane work, basket making, pottery, book binding, typing, computer-operating, handicrafts, stenography, cloth printing, embroidery, hosiery, bakery, nankeen making, paper making, printing, tailoring, weaving, soap making, candle making, toy making, sewing machine repair, food processing, etc.

Skill is the knowledge and ability to perform assigned tasks. Skills can be defined as the specific learning activities, and they range widely in terms of complexity (Adewole, 2012). Asokhia, and Agbonluae (2013), classified skills as human skills and technical skills as those involved in critical thinking, imagination and creative ideas that result in designing and technical skills. Agbakwuru and Godfrey (2016) stated that skills are developed through the application of principles of science and technical skill acquisition. Skill acquisition involves the correct task performance. Perhaps, prison personnel are being trained for only custody service at the prisoners' (Dambazau, 2017). It has been observed that some people admitted to prison had no previous orientation in any socio-psychological skill. Davis, Robert and Jennifer (2016) describe a skill as the ability to do something well, usually gained through training or experience. Skills are often acquired after a training session or after a practical. Federal Ministry of Interior (2016) stated that Skill acquisition is the ability to

be trained on a particular task or function and become expert in it. Skills acquisition is the ability to learn or acquire skills. It involves the development of a new skill, practice of doing things usually gained through training or experience.

Skill acquisition reduces the crime rate in many nations. People begin to think on many dirty activities they will do to make money when they do not have anything to call job of their own (Federal Ministry of Interior, 2016). Joblessness, according to Hassan, M.A, and Oloyede, (2013) occurs when people are without jobs and they have actively sought work within the past five weeks. According to the Onweonye, Obinne and Odu (2013) the unemployment rate is the proportion of those who are looking for work but could not find work for at least 40 hours during the reference period to the total currently active (labour force) population. Skills acquisition reduces the crime rate in our society. Also, the skills acquired by the citizens who were indulging in crime before can be used to convert those who are still partakers in such bad practice. They can go after their old bad friends and teach them the new skills they acquired**.** A skillful person speaks with confidence while the non-skillful is filled with fear **(**Okunola, 2018). Entrepreneurial skills build individual self-esteem; engender growth process and changes that is never-ending. Therefore, friends learned or not, are hereby encouraged to go for skills acquisition because good and lucrative skills acquired can make ways where imprisonments it seems as a way for social measure.

Vocational education is widely implemented and evaluated as a form of correctional intervention, aimed primarily at addressing poor educational achievement and reduced employability among correctional populations. It is recognized as a key component of correctional education for inmates. Omoni and Ijeh (2019) emphasize that effective vocational training programs for inmates should include mechanisms for selecting appropriate training, ensuring transparency, fairness, and the ability for inmates to express their preferences. Furthermore, they suggest that to enhance effectiveness, adequate provisions should be made accessible to inmates.

Onisanwa (2014) presents a model for evaluating vocational training programs in prisons, which includes assessing participants' interest, motivation, and attention; evaluating the knowledge and skills acquired by participants; measuring the application of learned knowledge and skills; and determining the overall impact of the training, including financial and morale effects (Adekola et al., 2016).

The effectiveness of prison-based vocational training programs can also be measured by criteria such as reducing the risk of recidivism among ex-prisoners, providing valuable work experience to inmates, and enhancing employment opportunities upon release (Omoni & Ijeh, 2019). For female

inmates, the effectiveness of vocational training programs should be evaluated based on whether the programs align with the types of jobs available to women, aiming to address gender stereotypes and economic disparities in the job market. Additionally, it is important that prisoners have the option to choose their preferred training programs (Talba, 2015). Training should adhere to recognized national standards and lead to accredited qualifications.

Work plays a crucial role in providing status and a sense of place in society. Successful work performance can significantly boost self-confidence, particularly for individuals with disabilities. Special education centers offering vocational training typically focus on trades such as candle making, chalk making, caning chairs, basket making, weaving, bookbinding, printing, envelope making, and greeting card creation. For individuals with intellectual disabilities, practical, hands-on activities that are not intellectually demanding are often more beneficial than traditional academic programs. To make employment a viable option, appropriate jobs from the open market need to be identified (Austin, 2016; Onisanwa, 2014). Jobs that require minimal supervision and present low risks are preferable for successful training and placement. Vocational habilitation can help individuals with intellectual disabilities maintain employment, with potential vocations including shoe making and repair, bead making, livestock management, barbing, hairdressing, dressmaking, baking, mat making, basket making, cane chair making, bricklaying, and plumbing.

In this training, dressmaking programme for instance, these individuals may be taught or exposed to hand tools, their names and uses and then given training on how to operate them. Gradually they are given simple assignments to perform, planned on the skills they have been taught. They are also taught to operate sewing machines, threading needles, bobbins, making straight stitches etc. They are given training in tasks like cleaning the floor, taking proper care of tools, putting them back appropriately in proper places after finishing the work. They are given training in various kinds of operations for example, rotation, winding, twisting, paper folding by matching ends and corners, pasting, locking, unlocking, screwing and unscrewing, stitching, etc.

Before choosing appropriate vocation for inmates with dual diagnosis, it is necessary that an occupational therapist conduct a comprehensive vocational assessment to determine their interest, ability and preferences. Vocational assessment is pivotal to the habilitation of persons with intellectual disability (Austin, 2016). Vocational assessment and evaluation play a key role in determining the eligibility for habilitation and hence forms an essential component of vocational habilitation. It is the process of obtaining information about a worker's skills and performance in order to make appropriate vocational and training decisions. Vocational assessment incorporates

medical, psychological, social, educational, cultural, economic data in the attainment of goal for vocational training and habilitation.

Vocational assessment for inmates with dual diagnosis is crucial for evaluating their skills and capacities and for pinpointing strengths and weaknesses to inform vocational programming. This assessment addresses several key issues: determining eligibility for services, assessing vocational potential—which includes intellectual abilities, academic achievement, aptitudes, and interests—evaluating social adaptation and the level of psychological and emotional functioning, and identifying any issues requiring treatment (Omoni & Ijeh, 2019).

In the context of correctional facilities, where inmates with dual diagnosis face unique challenges, vocational assessment becomes particularly significant. These inmates often deal with complex interactions between mental health conditions and cognitive impairments, impacting their ability to engage effectively in vocational training. Therefore, a comprehensive vocational assessment must evaluate not only general skills but also the interplay between mental health and cognitive functions (Omoni & Ijeh, 2019). Before placing an inmate with dual diagnosis into an employment setting, it is essential for them to participate in a prevocational program designed to equip them with foundational skills, behaviors, attitudes, and psychosocial readiness for the job. Prevocational training involves systematic preparation to help inmates develop necessary skills and behaviors for specific vocations. The goal is to optimize the inmate's personality, potential, and functional abilities through targeted interventions and support, forming an integral part of their overall habilitation program (Okunola, 2018).

Prevocational training is a transitional phase between the classroom environment and actual work settings. This phase is particularly important for inmates with dual diagnosis, who may struggle to adjust to work life directly from a correctional facility due to their complex needs, including mental health issues, cognitive impairments, and new psychosocial roles associated with employment. Effective prevocational training addresses these challenges by gradually preparing inmates for workplace demands, facilitating their transition from incarceration to gainful employment (Tanimu, 2010).

In correctional facilities, prevocational programs are typically conducted in various settings. Classroom situations focus on teaching practical applications of academic skills, adapted to the specific needs of inmates with dual diagnosis. This approach ensures that inmates can apply academic knowledge in real-world scenarios, enhancing their readiness for vocational tasks. Community settings involve activities designed to develop personal and social skills, which are

crucial for successful reintegration into society. These settings help inmates learn appropriate interaction, behavior management, and adaptation to social norms. Workshop or jobsite settings provide hands-on experience and help inmates acquire work-related skills. This practical training is essential for developing job-specific competencies and understanding the demands of different types of work (Tanimu, 2010).

Addressing the needs of inmates with dual diagnosis through targeted prevocational training, correctional facilities can better prepare these individuals for successful employment and reintegration into society. This approach not only supports their transition from incarceration to the workforce but also aims to reduce recidivism by providing meaningful skills and opportunities for personal and professional growth (Omoni & Ijeh, 2019; Okunola, 2018; Tanimu, 2010).

In this training, inmates with dual diagnosis are exposed gradually to work. They are oriented or re-oriented with hand tools, their names and uses as well as their operation. This programme may take several days or weeks as a probative course to accomplish its desired goals. In the pre-vocational training programme, teaching various kinds of work skills is important. Apart from work skills training, work related skills are also important because without that, work skills and job skills become meaningless (Talba, 2015). Here, they are also trained in punctuality, attendance, regularity and decency in physical appearance. They are taught to take responsibility in personal and general responsibility. They are taught to complete assigned task, take care of tools, to take permission before leaving the task, to display proper respect for peers and supervisors, to behave appropriately in a working situation. They are also taught to work cooperatively with other co-workers. They should pay attention to their own work and should not disturb others. They are taught to control their anger and emotional outbursts. They should not react adversely to criticism or teasing. They are taught to follow and adhere to supervisor's directions etc.

While giving prevocational training, inmates are given orientation about the activity they are performing, its importance and how it is going to help them in future. In the Prevocational training it is important to teach various kinds of work skills, work related skills and behaviour to develop proper work personality (Piloty, 2015).

2.1.9. School reintegration

School reintegration is the ultimate goal of correctional rehabilitation of inmates with dual diagnosis. Reintegration involves moving an ex-offender from prison into life as a productive citizen (Jason, Olson & Harvey, 2015). Ex-offenders are individuals who have been incarcerated

and released back to their communities (James, 2015). Reintegration can be difficult for adult offenders, especially for those at a higher risk of recidivating. According to the National Institute of Justice (2018), ex-offenders are likely to re-offend within three years of being released from prison. It is difficult for ex-offenders to survive outside of prison because of the many challenges they are faced with, primarily, a lack of employment. Without employment, ex-offenders cannot reintegrate successfully, which results in behaviors that put them at risk of reoffending. Other barriers include parenting issues, self-esteem issues, and moral conflicts (Tyler & Brockmann, 2017). It is difficult for ex-offenders to successfully reintegrate without help from their families, friends, and even their communities.

Each released offender needs to reintegrate back into their communities successfully. Tarpey and Friend (2016) defined reintegration as abstaining from criminal activity and engaging in a socially productive and responsible life. Offenders are strongly urged to take the necessary steps to reintegrate successfully. The National Institute of Justice reported that 79% of over 400,000 released state offenders re-offended within six years. Forty-four percent of released offenders re-offend during their first year of release (National Institute of Justice, 2018). Many offenders are re-arrested for drug crimes, gang crimes, human trafficking, property crimes, sex-related crimes, violent crimes, and terrorism crimes (National Institute of Justice, 2018). Offenders must reintegrate successfully because it helps them become productive citizens while keeping them from new committing criminal actions.

According to the National Institute of Justice (2018), facilitating successful offender reintegration occurs through reentry programs, which reenter individuals to their communities using community-based reentry programs (James, 2015). Reentry programs help offenders with employment, education, housing, treatment services, and alcohol and substance abuse counseling (Frazier, Sung, Gideon & Alfaro, 2015). It is unknown if these programs are helping ex-offenders stay out of prison. Many ex-offenders still participate in offending behaviors even after taking part in community-based reentry programs.

It is difficult for ex-offenders to return to their communities because of the challenges and barriers they face. Challenges include securing employment and obtaining housing (Frazier, Sung, Gideon & Alfaro, 2015). Congress became aware of the obstacles and developed the Second Chance Act (n.d.), which provides grants for implementing programs and services to help reduce recidivism and improve ex-offenders (The National Reentry Resource Center, 2019). Recidivism refers to criminal acts that result in being arrested, reconvicted, and returning to prison (National Institute of Justice,

n.d.). The Second Chance Act grant allows ex-offenders to participate in community-based reentry programs to assist in their reintegration process. O'Hear (2017) stated that community-based reentry programs had been shown to help reduce recidivism rates; however, programs have not been consistently evaluated. There is a gap in the literature on the influence of community-based reentry programs on ex-offender's transition back into society.

Duwe (2017) stated that such programs need to be evaluated to determine their influence. Effective programming requires a great deal of attention to program design, implementation, and ongoing monitoring and assessing its impact (Askew, 2016). Program evaluations involve conducting systematic studies to evaluate program performance (Program Evaluation: Why what, and when to evaluate, n.d.) If a program evaluation is negative, program directors to create more effective programs by revising program components or implementing new ones. Programs that are designed to align with the principles of effective correctional intervention that includes (a) Risk Principle that targets higher risk offenders, (b) Need Principle that targets criminogenic risk/need factors including anti-social attitudes, anti-social peers, substance abuse, dysfunctional family and impulsivity/lack of self-control, (c) Treatment Principle that uses behavioral treatment approaches such as rehearsing new skills, (d) Responsivity Principle that helps to address treatment barriers such as lack of motivation, anxiety, reading levels, and consider individual differences such as age, gender and (e) Fidelity Principle that helps to carry out different interventions are more successful than programs with other designs (Duwe, 2017). Other designs include sex-offender treatment, faith-based interventions, and substance abuse treatment. These designs aren't used with different interventions (Duwe, 2017). Ex-offenders need adequate programming to reintegrate successfully into their communities.

Hunter, Lanza, Lawlor, Dyson, and Gordon (2016) suggested a need to set up interventions to support offender reintegration. Interventions include treatment, programming, and participating in pro-social activities. Intervention can be achieved by organizations partnering with other organizations. Successful reintegration helps ex-offenders adjust to the community by meeting educational, employment, mental health, substance abuse, and familial needs (Harding, Wyse, Dobson & Morenoff, 2014). Meeting these needs through programming maximizes the reintegration process (Harding et al., 2014). The beliefs that ex-offenders have can affect their reintegration experiences; therefore, if they train their minds to do the right thing, they will succeed within their communities, leading to a successful reintegration (Grier, 2015). Studies have shown that successful reintegration is essential to be productive, law-abiding citizens. Scholars have

conducted an extensive analysis of how the reintegration process works, and the different types of services in communities to help offenders with their individual needs.

During offender incarceration, ex-offenders could become institutionalized, which could harm their psychological and cognitive ability. Once they are released, they develop barriers that cause them to adjust to society (Ethridge et al., 2014). Ex-offenders' mentality can change drastically, resulting in them being unable to handle affairs in an orderly fashion as they would before their incarceration. Applying for identification could cause some frustrations for some ex-offenders because they may not understand how to fill out paperwork or challenge understanding what is being asked of them by staff.

Ex-offenders are faced with many other challenges once they are released from prison or jail. Some challenges include lack of transportation and difficulty obtaining employment. When offenders are released from prison, one of the first things they attempt to achieve is obtained employment, but they are often discriminated against by employers because of their convictions. Most employers have a negative perception of hiring individuals with criminal records, even before the interview (Ethridge et al., 2014). This could be harmful because someone who meets the job qualifications could be turned down because of their past convictions. According to Harley (2014), gaining employment is important once released from prison. Without a job, ex-offenders will not have a reliable source of income to provide for their families. Their basic needs, such as food, clothing, and shelter, would be challenging to meet. Ex-offenders have challenges in finding reliable transportation. It would be difficult for them to report to work daily without transportation.

Securing stable housing is also a challenge for some ex-offenders, and because of their criminal convictions, they are unable to qualify for government assistance, including housing (Wesley & Dewey, 2018). Individuals convicted of a drug offense are unable to receive Temporary Assistance to Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP/food stamps), federally subsidized housing, or higher education benefits (McCarty, 2013). This can be frustrating because, without help, it would be difficult for them to meet their financial obligations. They could also be disqualified for house rentals or federally insured mortgages (Orians, 2016). This could result in them becoming homeless, thus violating conditions of their parole.

Many ex-offenders released from the prison system lack necessary educational skills, which is a significant barrier to their reintegration. Many offenders receive their education within the prison system, but it is still difficult for them to further their education once they are released. Past research shows some ex-offenders, depending on their conviction, are unable to receive educational

assistance. Orians (2016) found that having prior convictions can result in ex-offenders being denied licensing programs and educational grants. Many ex-offenders are unable to further their education because they do not qualify for financial aid; therefore, they cannot pay for their studies. Ex-offenders are also dealing with mental health and substance abuse issues. The reintegrating challenges could cause someone to develop more problems by self-medicating and not getting the necessary assistance for their mental health issues (Begun, Early & Hodge, 2016). According to Frazier, Sung, Gideon, and Alfaro (2015), newly ex-offenders are vulnerable to relapse after being released from prison. There is a negative relationship between substance abuse and reintegration, and substance abuse treatment is critical to offenders attempting to reintegrate (Connolly & Granfield, 2017). They need ongoing assistance to help them battle substances and receive mental health treatment.

Ex-offenders deal with confronting peers and community members because of their crimes. Their crimes have caused the communities to doubt them, making it hard for the communities to support their transition to society. Experiencing poor support during their transition contributes to their feelings of inadequacy and emptiness (Denney et al., 2014). They need robust support systems to ensure they will not lead to drugs, crime, and recidivism (Denney et al., 2014). Mellow and Barnes-Ceeney (2017) argued that active community members should be advocating for the ex-offender reintegration, which helps to provide the ex-offender a second chance at life.

Returning offenders can receive various social support types, ranging from formal support from professional agencies to informal supports from families, friends, and even communities (Martinez & Abrams, 2013). Systematic investigation confirms there is a relationship between social support and antisocial behavior (Taylor, 2016). Without social support, it will be difficult for returning offenders to be productive citizens. Receiving support can decrease the amount of time an ex-offender spends with a criminal peer (Taylor, 2016). Negative support can cause an offender to relapse into their old ways. Family members who are involved in substances and crime can have a negative effect on the ex-offender reintegration. They can be easily persuaded into taking part in criminal activity.

Community-based reentry programs are designed to provide formal support to returning offenders. According to Clone and DeHart (2014), social support has three components: the strength of support, network characteristics, and the types of support offered. The level of services offered measures the strength of support. Network characteristics involve the kind of agencies willing to collaborate with the program staff. The kind of support provided can include funding for housing

and utilities, mental health counseling, substance abuse treatment, and employment services. Returning offenders need social support to help them reintegrate successfully.

Formal social support empowers returning citizens, their families, communities, and providers to address education, housing, employment, and primary and mental health care tailored to their needs (Janaki, & Anilkumar, 2013). Offenders can receive wrap-around services to assist with their reintegration needs. Formal supports are useful because it allows programs to coordinate with one another to better identify offenders' needs. Without formal supports, programs will not be effective, and they will not be beneficial to the ex-offender.

Community-based reentry programs are designed to provide professional programming to help ex-offenders reintegrate back to society. A community-based agency's goals are to provide a continuum of care that may have started during the offender's incarceration. Case managers and social workers in the correctional institutions are recommended to collaborate with community-based agencies to address the offender's barriers and come up with a plan before release (Paulson, 2013). Community-based reentry programs offer many services to ex-offenders transitioning back into the communities. Services include but are not limited to, housing, employment, vocational training, mental health and substance abuse treatment, mentoring, and social and life skills. Case managers must collaborate with ex-offenders to identify, analyze, document, and create a plan to help them achieve their goals (Hunter et al., 2016). The ex-offender goals are expected to be completed by using the different components within a program. Program components are different for each organization, and not all organizations have the same components. The components include housing, education, vocational and job training, employment, counselling, case management, substance abuse treatment, life, social skills, mentoring, and follow-up and support (Drake & LaFrance, 2017). These components are designed to help each participant receive help based on their individual needs. If the program does not have something the ex-offender needs, they are referred to an organization to help with their specific needs.

Returning offenders face difficulties in finding stable housing because of their challenges. Roman (2014) stated many released offenders live with a family member, a close friend, or a significant other. The scholar also explains some offenders do not have the option to live with someone. They must turn to community-based correctional housing facilities, transitional housing, private housing, or homeless shelters (Roman, 2014). If offenders choose to take part in community-based reentry programs, they will be offered help to find housing. Research has indicated that housing components are needed within programs (Wright et al., 2014). Without a stable environment, it is unlikely

offenders will be productive (Fontaine, 2013). Meeting the housing needs is vital to successful reintegration, and it also makes a program more engaging when participants know their housing needs will be met.

Many community-based agencies have implemented an education component to their programs because offenders are being released from prison with little to no education. Holzer, Raphael, and Stoll (2014) argued that previously incarcerated individuals have lower education levels. The researchers also stated that 70% of offenders being released from correctional institutions are high school dropouts, 50% are illiterate, and 19% have less than eight years of education. Education is an important part of reentry. Some programs offer GED courses, as well as college courses. Wikoff, Linhorst, and Morani (2012) explained one-third of all released offenders receive education training while incarcerated. Wikoff et al. (2012) performed survival analysis to compare recidivism rates. Results indicated that those who received an education no higher than a high school diploma were likely to re-offend.

Community-based agencies also realize the importance of including vocational training and employment assistance as part of their programs. Ethridge, Dunlap, Boston, and Staten (2014) stated vocational components within the prison settings and communities are designed to help ex-offenders with the skills needed to get a job while staying out of trouble. Ethridge et al. (2014) recognized that vocational components within community-based reentry programs could increase the ex-offender chance of gaining employment after incarceration. Offenders need to advance their education and participate in vocational training to reintegrate successfully. They can take advantage of these training while taking part in community-based reentry programs, especially if they did not get the chance to take part while incarcerated. According to Muhlhausen and Hurwitz (2019), many offenders receive vocational training during their incarceration. All offenders do not take part or are unable to take part in vocational training during incarceration. Many programs require their participants to receive certifications and vocational training before being considered for employment. Studies have shown that when an employer sees credentials on an offender's resume, it sets them apart from other candidates applying for the same job (National Institute of Corrections, 2018).

The employment component to community-based reentry programs has been designed to assist individuals in locating employment using the educational and vocational skills achieved during the program. Transitioning ex-offenders back into the community, and employment requires program staff to collaborate with employers. This allows ex-offenders to easily access and retain employment

(Harley et al., 2014). Without the assistance of program staff, it could be daunting for an offender to get employment, so program staff must remove barriers when dealing with potential employers. Programs can potentially help ex-offenders with the skills required to perform a job efficiently and effectively. Recent studies offer the explanation that work prevents offenders from reoffending. Heaney (2013) suggested ex-offenders who are employed have a higher chance of successfully reintegrating versus unemployed ex-offenders.

Each participant within a community-based reentry program is appointed a case manager to help them with the reintegration process. Case managers act as a bridge to internal and external resources needed for individuals to achieve positive change (Hunter et al, 2016). According to Social Solutions (2019), there are four critical components for successful case management; Intake, Needs Assessment, Service Planning, and Monitoring and Evaluation. The participant needs are examined during the intake case management session. During intake, case managers meet with the client, establish trust, determine if they would benefit from the program, assess clients' needs and make referrals if needs cannot be met in-house, where the program is located. The case manager then conducts a needs assessment, where they use information from the intake to identify client problems, interests, and risks. This stage is reassessed over time, as needs and circumstances often change (Social Solutions, 2019). The third component is service planning, where case managers establish specific goals and develop an action plan to meet those goals. Based on the service plan, case managers coordinate mental health services, health care, housing, transportation, employment, relationships, and community participation (Leutwyler et al., 2017). They also conduct plans based on individual needs. The fourth component is monitoring and evaluation, where case managers must continuously monitor and evaluate client progress (Social Solutions, 2019). If the client is not progressing, the case manager will develop a different course of action to help participants achieve their goals. Case management is essential to the reentry phase of an offender's life, especially for those suffering from mental illnesses (Angell et al., 2014). Case managers are considered the go-to person, and they also may be the only reliable support person in a client's life.

Offenders re-entering to the community are at high risk for experiencing mental health and substance use problems (Begun et al., 2016). Program directors are offering substance abuse and mental health treatment as a component of their community-based reentry programs. Recent studies have shown that substance abuse and mental illnesses are the leading factors for crime and reentry (Wesely & Dewey, 2018). It is essential to provide the ex-offenders treatment to keep them from reoffending or provide substance abuse and mental health resources for successful reintegration. Many ex-offenders lack experience and social skills because of being institutionalized. Community-

based reentry programs offer these skills to their participants to assist them in being responsible, law-abiding citizens. Within this component, programs provide parenting classes, soft skills training, financial literacy, anger management, conflict resolution, job readiness, and pro-social activities, helping participants become comfortable communicating with other individuals within their communities. Paulson (2013) stated offenders had not been introduced or engaged in positive life skills while incarcerated. Therefore, offering support through programming within the communities will give them the skills needed to succeed.

Community-based reentry programs use volunteers to serve as mentors to the ex-offenders who take part in the plans. Mentors serve as positive role models and utilize their experiences to guide individuals that need support (Hucklesby & Wincup, 2014). Some of the volunteers are faith-based leaders and community members, and others are peer support individuals who have had some justice involvement experiences. Mentors can help the ex-offender get through each hurdle they may be faced with during their reintegration period. Angell et al., (2014) state that mentors have a positive experience building their mentees' trust. Leutwyler et al (2017) conducted an ethnographic research and interviewed 44 mentees. The interviews proved that the mentees admired their mentors and felt the need to imitate their mentors to improve themselves. Having a mentoring component can be essential to community-based reentry programs.

Case managers provide support to each of their clients throughout a program. Following up with clients is critical because it allows case managers to monitor and refer clients to outside agencies if needed. It also provides case managers to regularly assess the client's level of care, keep clients motivated, ensure the case plan meets their needs, and come up with other plans when circumstances change. Updating information and determining if they still meet the program criteria is critical when following up with the clients. They also follow-up when the client obtains employment and when the client completes all the program requirements (Hucklesby & Wincup, 2014).

Although the components are designed to assist ex-offenders on being more productive law-abiding citizens, it is undetermined if the programs are effective because of many programs' participants reoffending. Scholars have shed some light on programs and the influence on helping offenders with their needs. However, there is a gap in the literature on why offenders still re-offend after participating in programs. Program evaluation is needed to determine the issue behind this problem. Scholars have argued that programs are not being evaluated as they should. Parker, Bush, and Harris (2014) explained the problems of evaluating programs. The scholars note that some evaluators

utilize the treatment as received (TR) model when assessing programs because it allows the evaluators to ignore if someone dropped out or refused services. Some scholars also use the intent to treat model (ITT), which explores differences in the characteristics of program completers and non-completers (Parker et al., 2014). This evaluation allows for statements on program influence to be made (Parker et al., 2014). Parker et al. (2014) also argued that evaluations should measure when the program has started to make a difference to the actual commencement date. Figuring out an effective evaluation method is needed for programs.

Comprehensive crime prevention programs must include effective measures to prevent recidivism and to stop the cycle of failed adaptation by repeat offenders. Offenders released from confinement face a variety of challenges that may hinder their ability to become law-abiding citizens. Of particular concern are high-risk offenders with lengthy records of criminality. A key feature of successful crime prevention strategies is the attention to the social reintegration of ex-prisoners into the community and the development of interventions designed to reduce the levels of recidivism (Leutwyler et al, 2017). These interventions represent a wide array of efforts sponsored by the justice system, often in collaboration with community agencies and organizations. Offender reintegration programs target the dynamic risk factors associated with recidivism and specific initiatives focus on specific challenges facing offenders, including substance abuse and unemployment, while others target specific offender groups, including sex offenders and high-risk young offenders. Offender reintegration programs can be generally grouped into prison-based programs, surveillance-based transition programs; assistance-based transition programs; and integrated, throughcare programs. It is important that the development of interventions designed to facilitate the social reintegration of offenders and reduce the rates of re-offending be informed by the efforts and outcomes of programmatic initiatives undertaken to date.

Successful crime prevention strategies must address factors contributing to the large number of crimes that are committed by individuals who have served a term of incarceration and failed, upon their release, to integrate the community as law-abiding citizens (Rakis, 2015). In the absence of material, psychological, and social support at the time of their release, offenders may have a very difficult time breaking the cycle of release and re-arrest. Short-term prison terms and extended terms of remand in custody provide limited opportunities for successful treatment and interventions to prevent future recidivism. A majority of convicted offenders have at least one prior conviction, either in youth or adult court and, among recidivists nearly one-third have a prior conviction and nearly 75 percent have multiple prior convictions. Community safety makes it imperative that

governments and communities develop effective interventions that will assist ex-prisoners to successfully reintegrate into the community and avoid further criminality. Managed offender reentry processes and programs are gaining acceptance and may offer a cost-effective way of preventing crime.

There is therefore an increasing focus among policy-makers and practitioners on identifying programs and strategies that will help prisoners successfully reintegrate back into their communities without re-offending. There is no consensus as to whether ex-offender reentry support programs are effective in assisting reintegration and reducing the rates of recidivism. To date, there have been few evaluations of existing programs (Visher, 2006). Many of the current initiatives were developed on the basis of somewhat conflicting program evaluation findings in related correctional areas (e.g., impact of drug treatment, employment training, counselling, community supervision). While there is an abundance of ideas as to what, in theory, should work, the findings of program evaluations are often disconcerting. Further, the majority of reintegration programs have not been subjected to controlled evaluations and successful approaches remain to be identified and articulated. Often, research and practice seem to move on separate tracks.

School reintegration is often understood as the support given to offenders during their reentry into society following imprisonment. A broader definition, however, encompasses a number of interventions undertaken following an arrest to divert offenders away from the criminal justice system to an alternative measure, including a restorative justice process or suitable treatment. It includes imposing community-based sanctions rather than imprisonment in an attempt to facilitate the social reintegration of offenders within the community, rather than subjecting them to the marginalizing and harmful effects of imprisonment. For those who are sentenced to imprisonment, it includes correctional programs in prison, and aftercare interventions (United Nations Office on Drugs and Crime, 2006). In recent years, the post-release, community-based component of these interventions has been variously referred to as “aftercare”, “transitional care”, “reentry” or “reentry support”, reintegration, or resettlement. Some post-release interventions may begin while the offender is still incarcerated with the intent of facilitating post-release adjustment.

In Canada, the expression offender “reintegration” generally refers to “reentry” or “resettlement”. In this review, these terms interchangeably to designate interventions, programs and services designed to assist prisoners to live law-abiding lives in the community following their release. However, the reader is cautioned against using the term “reintegration” too literally, as it should be obvious that, in many instances, the offenders were not prior to their incarceration, successfully

integrated into the community, were typically marginalized, and often had failed to acquire the attitudes and behaviours that result in most people functioning productively in society.

In recent years, more emphasis has been placed on designing comprehensive interventions, based on a continuity of care, to provide consistent assistance to offenders within and beyond prison. There is a recognition that preparation for reintegration should commence before the offenders' release. After their release, interventions should support their immediate transition from the prison to the community and reinforce the gains achieved through in prison treatment and continue until a successful reintegration is completed (Fox, 2002). This approach is often referred to as "throughcare", a systemwide mode of intervention. All interventions, regardless of their method, are best delivered as part of an integrated program designed to address an individual offender's specific issues and challenges. And, renewed attention has been given to "strength-based" approaches to make use of personal and community assets in order to help released offenders face their challenges and successfully reintegrate the community.

Offenders confined in correctional institutions are confronted by a range of social, economic and personal challenges that tend to become obstacles to a crime-free lifestyle (Borzycki and Baldry, 2013). Some of these challenges are a result of the offenders' past experiences and others are more directly associated with the consequences of incarceration and the following difficult transition back to the community. Offenders may have a history of social isolation and marginalization, physical or emotional abuse, poor employment or unemployment, and involvement in a criminal lifestyle that began at an early age. So too may offenders be challenged by physical and mental disabilities and health issues that may be related to substance abuse and drug addiction. Many offenders are challenged by skills deficits that make it difficult for them to compete and succeed in the community: poor inter-personal skills, low levels of formal education, illiteracy or innumeracy, poor cognitive or emotional functioning, and/or a lack of planning and financial management skills. There are also several practical challenges that must be faced by offenders at the time of their release, including finding suitable accommodation with very limited means, managing financially with little or no savings until they begin to earn some lawful remuneration, accessing a range of everyday necessities, and accessing services and support for their specific needs.

The period of transition from custody to community can be particularly difficult for offenders and contribute to the stress that is associated with being supervised in the community. The period of incarceration may itself have had several "collateral effects" (Borzycki and Makkai, 2017) upon many offenders: they may have lost their livelihood, their personal belongings, their ability to

maintain housing for themselves and their family; they may have lost important personal relationships and incarceration may have damaged their social networks; they may have experienced mental health difficulties or acquired self-defeating habits and attitudes. Homelessness, in particular, may place youth at risk of offending. The failed reentry of prisoners into society involves some significant costs for society, both financial and in terms of public safety. The costs of programs to support the reintegration of offenders must be assessed against the benefits of avoiding these significant future social and financial costs.

The primary criminogenic needs that must be addressed by institutional and community-based treatment services are related to: education, employment, accommodation, drugs and alcohol, mental health, social networks, cognitive skills, and attitudes. These risk factors are dynamic - meaning they are amenable to change - whereas other risk factors are not (Harper and Chitty, 2014). Program evaluations in the UK have identified a number of interventions that reduce risk factors. These include pre-school education;

2.2. Theoretical review

2.2.1. Travis Hirschi's Social control theory, 1969

In 1969, Travis Hirschi introduced a theory to criminology known as the Social Bond Theory, more recently known as the Social Control Theory (Pratt, Gau and Franklin, 2011). According to Bartol and Bartol (2011), social control theory contends that crime and delinquency occur when an individual's ties to the conventional order or normative standards are weak or largely nonexistent. This theory contends that all people, from the time children are born, are basically bad apples that must be controlled by laws, rules and regulations in order to keep society in check. It goes on to maintain that those who have a weak bond to societal controls end up participating in deviant or criminal behavior.

Social control theory gained prominence during the 1960s as sociologists sought differing conceptions of crime. It was during this period that Travis Hirschi put forth his innovative rendering of control theory, a theory built upon existing concepts of social control. Social Control theory establishes a strong prima facia argument that people in a society commit delinquent or criminal acts because of the weakness of the forces restraining them, not because of the strength of forces driving them to do so (Schreck, Stewart, & Fisher, 2016). Hirschi believed that social controls, like arrest, imprisonment, loss of income, etc. increase the costs of deviant behaviors to the point that they are not palatable to reasonable members of society (Hirschi, 1969). In retrospect, Hirschi's

logic relies on a simple observation: when an individual has experienced a lack of social connections or network of social support the likelihood that the individual will participate in criminal activity increases. Hirschi (1969) describes four elements of social constraints that help regulate people.

According to Hirschi, there are four types of basic bonds that people develop which determine whether or not they will become involved in criminal activity (Pratt, Gau and Franklin, 2011). These four bonds include Attachment, Commitment, Involvement and Belief.

Attachment-The internalization of norms, conscience, and empathy are determined by an individual's attachment to others. Hirschi assumes this acts as the primary motive for people to obey and follow laws as prescribed by society (Hirschi, 1969). Social control theory is situated amongst other sociological theories that focus on the role of social and familial bonds as constraints on offending. It is proposed that for young people, a key aspect of social control is found within the family, particularly through interactions with and feelings towards parents. Of the studies that have examined the impact of social control on delinquency, a large proportion has found a negative relationship between parental attachment and delinquency. As such, it has been found that the greater the attachment to parents, the lower the likelihood of involvement in delinquent behaviour. Attachment corresponds to the affective ties which the youth forms to significant others. The family environment is the source of attachment because parents act as role models and teach their children socially acceptable behavior.

Attachment involves the relation of the youth to parents, peers, and school. Attachment to parents is represented by two indices, measures of closeness of the youth to his father and to his mother. Attachment to peers is represented by items about the importance of friends to the respondent and how important it was to spend time with his peers. Attachment to school is represented by indices of positive attitude toward school, negative attitude toward school, academic achievement, self-concept of school ability, and the youth's perception of teachers' interest in him (Pratt, Gau and Franklin, 2011).

Commitment is related to the aspiration of going to school and earning personal income. This is an investment in conventional behavior which the youth risks should he become delinquent. In contrast to youths with well-defined goals, adolescents engaged in drinking, smoking, dating, and other behavior not oriented toward future goals are much more likely to get involved in delinquent behavior. Commitment include the adolescents' pursue of educational and occupational aspirations. commitment cites that the importance of educational and occupational aspirations that people value, which they would not want to risk jeopardizing by committing criminal or deviant acts" (Pratt, Gau and Franklin, 2011).

Involvement- This describes how a person's investment of time and labor in conventional social activities can bind that person to the normal order of society. Hirschi argues that an individual involved heavily in social causes and activity simply does not have time or energy to engage in deviant behavior (Hirschi, 1969). It is the participation in conventional activities which lead toward socially valued success and status objectives. The quality of a youth's activities and their relationship to future goals and objectives are important in preventing delinquency. Time spent on homework, vocational trades for example, are viewed as antecedent to success in attaining educational goals which are prerequisites to high or low status occupations. Thus, involvement is the opportunity costs associated with how people spend their time…idle hands are the devil's workshop" (Salim & Wermer, 2013).

Belief - according to Hirschi, belief plays a role in deviance in two ways. The criminal either a) disregards the beliefs he/she has been taught entirely or b) rationalizes their deviant behavior so that they can engage in criminal activity and still believes that their conduct is wrong. This subset involves the strain theory in that it demonstrates an individual's belief in common goals and the morals of society, but it can also highlight a lack of individual means for achieving those goals, which in turn encourages deviant behavior as a justifiable means to an end (Hirschi, 2001).

Belief is acceptance of the moral validity of the central social-value system (Hirschi, 1969). This variation in the acceptance of social rules is central to social control theory, because the fewer rules bound people feel, the more likely they are to break rules. Hirschi argues that there is one dominant set of values and that even delinquents may recognize the validity of those values, although they may not feel bound by them because of weakened ties to the dominant social order. It is the degree to which one adheres to the values associated with behaviors that conform to the law (Pratt, Gau and Franklin, 2011). This final belief asserts that the more important a person's values are in relation to a certain crime (such as using illegal drugs), the less likely they are to commit said crime.

Hirschi's social control theory implies delinquency is intrinsic to human nature.

Hirschi believed that conformity occurs through socialization, expressed in the theory by the acceptance of a bond between an individual and society, which is comprised of four major elements: attachment, commitment, involvement, and belief. All four of these elements are what make up the social bond, and the stronger each of these four elements are, the less likely the individual will be to partake in delinquent behavior. Hirschi's theory proposes that the weaker an individual's bonds are, the more likely they are to commit acts of delinquency.

Although not as important regarding delinquency in the social control theory, involvement and belief do support Hirschi's approach. Involvement is plain and simple; if somebody spends a great

deal of time doing conventional things, then they will not have time to engage in delinquent behavior. For example, an adolescent with intellectual disability committed to his/her vocational trade necessarily is involved extensively in conventional activities and may not have time for antisocial activities. The implication is that individuals with intellectual disability should be motivated and be taught different vocational skills that would not only occupy their minds but would also make them more economically viable, rather than been lockup in jail. These activities in both in the community or correctional settings equip them with the needed lucrative skills that channel their interest and energy to things that are worthwhile to self and the society at large thereby restraining them from criminal behabiours (Losa, 2012). Individuals with intellectual disability who have higher educational or vocational aspirations tend to have lower rates of juvenile delinquency, and such aspirations are an indicator of commitment to conventional behavior and acceptance of social norms (Hirschi, 1969). Therefore, correctional facilities in Nigerian prisons should be sensitive and more robust to ensure that inmates with conditions of dual diagnosis are diverted to life changing programmes and services such as life skills and vocational skills training that would lead to self-realization and understanding of self and societal values. this would promote school reintegration upon release and reduce recidivism rate among them.

Also, correctional facilities in Nigerian prisons instead of resorting to jail terms for these inmates, should work in tandem with parents, teachers and significant others of inmates with these unique needs to ensure that psychological therapies such as family and cognitive behavioural therapies are administered to tackle these criminal behaviours from the psychological perspectives. Through family therapy, the attachment of these offenders to parents or significant others could be made stronger to help reduce criminal behaviours. Control theorists assert that the role of the parent is paramount to the bonding of young people to the family and that ties to family, school and other aspects of society serve to diminish one's propensity for deviant behaviour. As such, social control theory posits that crime occurs when such bonds are weakened or are not well established. Control theorists argue that without such bonds, crime is an inevitable outcome (Lilly 2015). As research in this area has largely found a strong relationship between parental attachment and lower levels of delinquency, providing support to parents in the form of parenting skills training could be an effective step toward addressing youth crime by building strong bonds between parents and children (Marna, 2019). Beyond the family, schools or community agencies play a prominent role in the socialization of young people and could also play a key role as an insulating factor against crime. Also, the administration of cognitive behavioural therapy could help the offenders monitor and desist from the negative thought patterns that propel them to engage in criminal behaviours.

Overall, Travis Hirschi's Social Control Theory, introduced in 1969, suggests that individuals are less likely to engage in deviant behavior when they have strong bonds to society. These bonds, which include attachment, commitment, involvement, and belief, play a crucial role in guiding behavior. In the context of this study, first, the focus of rehabilitation should be on strengthening social bonds. Hirschi emphasizes the importance of attachment, particularly to family, peers, and institutions like schools. For inmates with dual diagnosis, rehabilitation interventions need to prioritize rebuilding or reinforcing these attachments. This could be achieved through counseling, family therapy, and community reintegration programs that help reconnect inmates with supportive social networks. Additionally, the element of commitment in Hirschi's theory suggests that those who have invested in conventional activities, such as education or employment, are less likely to re-offend. Therefore, rehabilitation programs should encourage inmates to pursue educational and vocational goals, offering them tangible incentives to commit to a law-abiding life (Yuli & Arlison, 2014).

School reintegration plays a pivotal role as a preventive measure against recidivism. Hirschi's theory posits that involvement in conventional activities reduces the opportunity for deviant behavior. Therefore, reintegration programs that engage inmates in academic, vocational, or extracurricular activities could significantly deter them from returning to criminal behavior. Ensuring that inmates with dual diagnosis are meaningfully occupied through educational programs is essential in reducing their likelihood of re-offending after release (Dayo, 2015). Furthermore, the belief element in Hirschi's theory underscores the importance of reinforcing positive societal norms. Reintegration programs should thus include components that strengthen inmates' beliefs in the value of education, lawful behavior, and contributing positively to society. This can be achieved through mentorship programs, moral education, and engagement with positive role models.

Addressing the school-to-prison pipeline is another crucial aspect where Hirschi's theory applies. The theory highlights how weakened social bonds can lead to delinquency. Your research, which explores interventions for inmates with dual diagnosis, can help uncover how early disruptions in these bonds—such as dropping out of school or lack of family support—contribute to the school-to-prison pipeline (Seigel and McCormick, 2016). By identifying these disruptions, interventions can be designed to restore these bonds and redirect individuals away from incarceration towards productive societal roles. The implications of this research could also inform policies aimed at early intervention in schools, especially for at-risk youth. By reinforcing social bonds through school-

based support programs, mentorship, and counseling, it may be possible to prevent the onset of criminal behavior that often leads to incarceration.

Inmates with dual diagnosis, those facing both mental health and substance use disorders, may experience particularly weak social bonds due to the compounded effects of their conditions. Hirschi's theory suggests that rehabilitation and reintegration interventions should be holistic, addressing both the mental health needs and the social reintegration challenges of these individuals. Tailored programs that address their specific barriers to forming and maintaining social bonds could be crucial in reducing recidivism.

Lastly, the broader community's involvement is essential for successful rehabilitation and reintegration, as implied by Hirschi's theory. Community-based programs that engage local organizations, religious groups, and other societal institutions can support inmates as they transition back into society (Griffiths and Cunningham, 2010). These programs can help reinforce the social bonds necessary to prevent relapse into criminal behavior. In summary, Travis Hirschi's Social Control Theory provides a valuable framework for understanding how rehabilitation and school reintegration interventions can mitigate the school-to-prison pipeline in Nigeria. By focusing on strengthening social bonds and promoting engagement with societal norms, these interventions have the potential to reduce recidivism among inmates with dual diagnosis and facilitate their successful reintegration into society.

2.2.2. The Theory of Effective Correctional Intervention

The Theory of Effective Correctional Intervention was propounded by Canadian criminologists Donald A. Andrews and James Bonta in the late 1980s and early 1990s. Andrews and Bonta's work focused on identifying the key principles and practices that make correctional interventions more effective in reducing recidivism and promoting rehabilitation.

The Theory of Effective Correctional Intervention was developed from social learning theories and criminogenic theories. These theories inform program staff on how to conceptualize and change behaviors through modeling therapy, social training, and cognitive behavioral therapy (Gendreau, Smith, & French, 2016). The theory of effective correctional intervention (ECI) is a framework that outlines the principles and practices aimed at reducing recidivism and promoting the successful reintegration of offenders into society. Developed through extensive research in the field of criminology and corrections, the theory emphasizes evidence-based strategies that address the underlying causes of criminal behavior and support the rehabilitation of offenders. There are seven

principles of effective correctional intervention. The effective correctional intervention principles are used to determine the quality of treatment programs in jails, prisons, and community-based reentry programs. Gendreau et al. (2016) explained the principles of effective correctional intervention as follows:

1. Organization Culture. The organization being receptive to implementing new ideas and has a code of ethics. A history of responding to new initiations and coping with problematic issues promptly is evident, as is a proactive orientation to problem-solving. Organizational harmony is reflected in low staff turnover, frequent in-service training, and within house sharing of information.

2. Program Implementation/Maintenance. Based on individual-level survey data on the service's need and a thorough review of relevant treatment kinds of literature. Implementation occurs when the organization does not face contentious issues (e.g., fiscal, staffing levels, stakeholder reluctance) that might seriously jeopardize the project.

3. Management/Staff Characteristics. The program director has an advanced degree and several years of experience working in offender treatment programs. Most staff involved in direct service delivery has an undergraduate degree and clinical experience working with offenders. Staff members are hired on relationship and skill factors, improving the integrity of the therapeutic relationship. Staff members are expected to endorse rehabilitation and have confidence in their ability (i.e., self-efficacy) to deliver quality services.

4. Client Risk/Need Practices. Targeting criminogenic needs includes assessing offenders on a risk instrument that has adequate predictive validities and contains a wide range of criminogenic needs. These needs are routinely reassessed over time (e.g., every three to six months) to target them for treatment and monitor changes in risk and need levels, which significantly impact case management practices.

5. Program Characteristics: *General Responsivity and High Risk*. The most effective treatment programs employ behavioral treatment modalities (general responsivity). Behavioral programs should also target the criminogenic needs of higher-risk offenders — the program manual details the discrete steps to be followed in presenting the treatment protocol. Offenders spend at least 40% of their program time in getting pro-social skills. The ratio of reinforcements to punishers is 4:1 or more, and completion criteria are explicit. Relapse prevention strategy methods are extended to offenders after completion of the initial treatment phase.

6. Core Correctional Practice. Program therapists engage in different therapeutic practices. Latessa et al. (2013), explained the practices as follows:

Anti-criminal modeling, which helps motivate offenders to use prosocial behaviors and provide them with positive reinforcement when using those behaviors.

Effective reinforcement and disapproval - which are used to reinforce good behaviors and provide immediate statements of approval and support. Disapproval is used to disapprove specific behaviors, which includes statements of why the behavior is disapproved. Long-term and short-term goals are used for prosocial behaviors.

Problem-solving techniques - which are used to help offenders address high-risk situations.

Structured learning procedures for skill-building are used to help offenders develop prosocial skills when involved in high-risk situations. Offenders learn how to react positively, and they are given constructive feedback when practicing the skill.

Effective use of authority shows the offender that there is a balance between them and the therapist. Program therapists will make use of authority by guiding offenders toward complying to care and giving the offender choices.

Cognitive self-change is used to help offenders change their negative thoughts and feelings and generate prosocial alternatives.

Relationship practices allow program staff to possess empathetic skills and give them the ability to be engaging, solution-focused, flexible, open, and nonjudgmental.

Motivational interviewing - a method used to motivate changed behavior.

7. Inter-Agency Communication. The agency establishes a system (i.e., advocacy, brokerage) whereby offenders are referred to other community agencies to help to provide high-quality services (Genreau, et al, 2006). Mellow and Barnes-Ceeney (2017) state having a clear vision and goals is needed to ensure organizations are resources for ex-offenders. Community-based reentry programs develop a communication system with many organizations, including but not limited to criminal justice agencies, legal aid, health care organizations, and mental health services. Learning theorists believe such programs can be useful if they have tools to ensure individual needs are met. The Correctional Assessment Inventory Tool is used with the principles of effective correctional intervention to evaluate program influence (Gendreau, et al, 2016). It is recommended that programs use the Correctional Program Assessment Inventory (CPAI) tool because it allows the program staff to develop strategies to meet the principles of effective correctional intervention (Duwe, 2017). Harding, et al (2014) explained using this tool can increase the chance of successful intervention. The tool is used to assess program influence and outcomes; it was developed to improve reentry programs based on research and evaluation (O'Hear, 2017).

The theory of effective correctional intervention has been used within the juvenile and adult institutions. It is also used within community-based programs serving offender populations. Harding, et al (2014) explained past studies on correctional interventions proved that some programs were effective for high-risk offenders yet there have been detrimental effects for low-risk offenders. The scholars also noted that research should continue to explore the link between program integrity and program influence, which could help correctional and community-based reentry programs develop options to improve. Correctional intervention can help offenders and ex-offenders make changes to their behaviors. Scholars have indicated that programs can be effective when meeting the principles of effective intervention (Ethridge et al., 2014).

The theory of effective correctional intervention was used as the framework for this research study to guide recidivism reduction while using the seven principles of correctional intervention. Gendreau, Smith, and French (2006) stated that using the seven principles of effective correctional intervention can help community-based reentry program staff form an individualized plan to help participants achieve their reintegration goals and provide the information needed to carry out a successful reentry program. This theory buttressing the cognitive transformation theory of crime (Wesley, and Dewey, 2018) emphasizes four key elements in the desistance process. First, individuals develop an openness to change and begin to view change as a possibility. Second, individuals are exposed to circumstances (hooks) that motivate them to change. For instance, an individual may be offered a job or the opportunity to attend a comprehensive drug rehabilitation treatment program. Third, individuals develop conventional replacement selves, a process wherein they visualize new lives, occupations, and identities. Finally, individuals reinterpret their past illegal behaviors. This part of the process requires cognitive (and moral) sophistication, because individuals (a) acknowledge that their behaviors were harmful to other individuals, families, and communities; (b) describe how the behaviors were harmful; and (c) justify why they no longer wish to participate in such behaviors. Thus, the four elements integrate psychological (e.g., developing an openness to change; considering a replacement self; reflecting on behaviors) and social elements (e.g., hooks such as jobs, intimate relationships, community volunteering, church involvement) to foster quality school reintegration.

The theory of effective correctional intervention provides a robust framework for designing and implementing interventions that can effectively address the complex needs of offenders and support their rehabilitation. Its principles are directly applicable to the study on disrupting the school-to-prison pipeline in Nigeria, as they emphasize targeted, responsive, and evidence-based approaches

to reducing recidivism and promoting successful reintegration. By aligning with the ECI framework, the study has the potential to contribute significantly to the development of effective correctional practices and policies that support individuals with intellectual disabilities and associated mental health conditions.

2.3. Empirical review

2.3.1. Cognitive behavioral therapy and post-release school reintegration among dually diagnosed inmates

Several well conducted meta-analyses have identified cognitive-behavioral therapy (CBT) as a particularly effective intervention for reducing the recidivism of juvenile and adult offenders. Pearson, Lipton, Cleland, and Yee (2022), for instance, conducted a meta-analysis of 69 research studies covering both behavioral (e.g., contingency contracting, token economy) and cognitive behavioural programs. They found that the cognitive-behavioral programs were more effective in reducing recidivism than the behavioral ones, with a mean recidivism reduction for treated groups of about 30%. Similarly, a meta-analysis by Wilson, Bouffard, and MacKenzie (2015) examined 20 studies of group-oriented cognitive behavioral programs for offenders and found that CBT was very effective for reducing their criminal behavior. In their analysis, representative CBT programs showed recidivism reductions of 20-30% compared to control groups. Although these meta-analyses provide strong indications of the effectiveness of cognitive behavioral treatment for offenders, they encompassed considerable diversity within the range of offender types, outcome variables, quality of study design, and (especially in Pearson et al., 2002) variations in what was counted as a cognitive-behavioral treatment.

A more circumscribed meta-analysis conducted by Lipsey, Chapman, and Landenberger (2011) examined 14 experimental and quasi-experimental studies that emphasized cognitive change as the defining condition of CBT, considered only effects for general offender samples, and focused on reoffense recidivism as the treatment outcome. The results showed that the odds of recidivating for offenders receiving CBT were only about 55% of that for offenders in control groups. Lipsey and Landenberger (2019) then focused further on an updated and overlapping set of 14 randomized experiments and found that the mean recidivism for the treatment groups in those studies was 27% lower than that of the control groups. This meta-analysis confirmed the findings of positive CBT effects on the recidivism of offenders that have been reported in other recent meta-analyses (Pearson et al., 2022; Wilson, Bouffard, & MacKenzie, 2015). The mean odds ratio indicated that the odds

of not recidivating in the 12 months after intervention for individuals in the treatment group were 1.53 times as great as those for individuals in the control group. This represents a reduction from the .40 mean recidivism rate of the control groups to a mean rate of .30 for the treatment groups, a 25% decrease. The most effective configurations of CBT produced odds ratios nearly twice as large as the mean, corresponding to recidivism rates of around .19 in the treatment groups, more than a 50% decrease from the .40 rate of the average control group.

Nana and Lipsey (2015) carried out a meta-analysis of 58 experimental and quasi-experimental studies of the effects of cognitive behavioral therapy (CBT) on the recidivism of adult and juvenile offenders with intellectual disability confirmed prior positive findings and explored a range of potential moderators to identify factors associated with variation in treatment effects. The objective of this meta-analysis was to examine the relationships of selected moderator variables to the effects of CBT on the recidivism of adult and juvenile offenders with intellectual disability. The study used a randomized or quasi-experimental design that compared a CBT treatment condition with a control condition that did not include CBT treatment. Quasi-experimental designs were eligible only if subjects in the treatment and control conditions were matched or statistically controlled on pre-treatment risk-related variables (e.g., relevant personal, demographic, and criminal background characteristics) or if pre-treatment measures of criminal or antisocial behavior or significant risk factors for such behavior were reported in a form that permitted assessment of the initial equivalence of the treatment and control groups. To eliminate explicit self-selection as a biasing factor in group assignment, however, studies were not included if the control groups were created with individuals who began CBT but dropped out prior to completing treatment or who were offered CBT and refused. Control groups could represent placebo, wait-list, no treatment, or "treatment as usual" conditions, with the latter restricted to cases of clearly routine probation, institutional, or aftercare/parole practices.

Meta-analysis has thus consistently indicated that CBT, on average, has significant positive effects on recidivism. However, there is also significant variation across studies in the effect sizes that contribute to those mean values that must be acknowledged. Identification of the moderator variables that describe the study characteristics associated with larger and smaller effects is another kind of contribution meta-analysis can make to understanding the effectiveness of CBT with offenders. Of particular importance is the role such moderator analysis can play in ascertaining which variants of CBT are most effective and for which offenders. Lipsey and Landenberger (2019) identified a few factors that were related to variation in recidivism effects. They found that treatment of high risk offenders, greater levels of CBT training for treatment providers, and CBT programs

set up for research or demonstration purposes (in contrast to "real world" routine practice programs) were associated with larger effects. What most characterized the research and demonstration programs, in turn, was smaller sample sizes, greater monitoring of offender attendance and adherence to the intervention plan (treatment fidelity checks), and providers with mental health backgrounds. These factors suggest that treatment effectiveness is mainly a function of the quality of the CBT provided.

That meta-analysis involved only a small number of studies, however, and did not permit much exploration of potential moderator variables. Wilson, Bouffard, and MacKenzie (2015) computed mean effect sizes separately for Moral Reconation Therapy (MRT), Reasoning and Rehabilitation (R&R), and "other" CBT programs. They found that R&R showed somewhat smaller mean effects but did not examine any other moderator variables. Pearson et al. (2022), as noted above, compared the effects of behavioral and cognitive-behavioral programs and also reported larger effects for better designed studies but did not pursue further moderator analysis. There has thus been only limited meta-analytic investigation of factors identifiable in the body of research on CBT that are associated with variation in its effects on offender recidivism. The most likely candidates for such factors fall into categories relating to the specific type of CBT program applied, the nature and extent of its implementation, the characteristics of the offenders to whom it is provided, and the study methods used to investigate its effects. The type of CBT program, for instance, relates, first, to the "brand name" curriculum used, such as MRT and R&R as examined by Wilson, Bouffard, and MacKenzie (2015). CBT programs also differ in the nature and mix of treatment elements included, e.g., whether oriented mainly toward cognitive restructuring exercises or cognitive skills training and whether such topics as anger management, relapse prevention, interpersonal problems solving and moral reasoning are covered. Another potentially important distinction is whether CBT constitutes virtually the full program offered or is combined with other services, e.g., educational classes, vocational training, or mental health counselling.

Factors related to program implementation that might influence the effects of CBT include, most centrally, how much treatment is provided. The duration of CBT programs in correctional settings, for instance, varies from weeks to years and may involve many meetings per week or less than one. The fidelity of the implementation to the curriculum specifications may also be important along with the degree of expertise possessed by the personnel providing the program. As mentioned earlier, Lipsey and Landenberger (2019) found that programs implemented principally for research or demonstration purposes showed larger effects than routine practice programs. In these programs, the researchers themselves generally exercise control over the various phases and facets of

implementation. The treatment provided to offenders in those circumstances almost certainly differs in important ways from that provided when the program under everyday conditions in criminal justice settings.

Among the characteristics of the offenders participating in CBT that may influence the outcome are age, gender, and ethnic background as well as criminal history and other such risk indicators. The "risk principle" of Andrews et al. (2010), for instance, posits that effective treatment will have greater impact on higher-risk offenders because they have more room for improvement than lower-risk offenders. Also, there is good reason to believe that the methods and procedures used in the research will influence the magnitude of the observed effects. Random assignment studies are expected to yield unbiased results while findings from nonrandomized comparisons may over or understate effects. Weisburd, Lum, and Petrosino (2011), for example, found larger effects in nonrandomized studies of criminal justice programs though, for CBT, Pearson et al. (2022) reported larger effects for studies of higher methodological quality. After assignment to conditions, attrition from outcome measurement can also bias effect estimates if, as is likely, it is not randomly distributed across conditions. The operationalization of the outcome measure is another potential source of difference. Even when the focus is on recidivism, some studies index it with the rate of rearrest, others by assessing reconvictions, incarcerations, probation or parole violations, and the like. Moreover, the timing of recidivism measurement varies, ranging from a period close to the end of treatment to months or years later.

Meta-analytical evaluations of CBT have also been conducted at the international level. Redondo, Sanchez-Meca, & Garrido's meta-analysis (2019) aggregated 32 European interventions directly addressing recidivism, 9.4% of which were explicitly cognitive-behavioral in nature. Aside from variations in theoretical models, there was significant heterogeneity in the programs. For example, the analysis included only 3 randomized studies, and multiple settings, sample ages and intervention characteristics; each subgroup represented only a fraction of the total sample. Despite these limitations, cognitive-behavioral interventions were the most successful type of programs overall. In this case, the effect size of the CBT programs (Pearson correlation coefficient r = .226) was nearly double the impact of the mean result across all types (r= .120). In a subsequent multivariate regression analysis, treatment type accounted for 48% of the explained variance in the model, with the partialised, unstandardized regression coefficients for the CBT programs (β= .785) remaining the most effective with regard to overall recidivism.

Lipsey et al. (2001), in a relatively early meta-analysis, were able to identify 14 studies that evaluated the impact of cognitive-behavioral programs specifically designed to reduce recidivism. Eight of the included programs were experimental in nature. Lipsey et al. reported a weighted mean odds ratio of .66 (a=.05) (Lipsey, Chapman, & Landenberger, 2011). Taken individually, each of the studies reported a positive effect of the treatment, though few were statistically significant (a=.05). The overall significance, the authors note, may have been due to a single study, with a very large sample size. Overall, Lipsey, et al. consider CBT-based programs promising, though they question the generalizability of small sample studies with significant heterogeneity. Lipsey and Landenberger updated this study several years later, identifying a broader sample of 14 randomized evaluations, only some of which were included in the prior version (Lipsey & Landenberger, 2015). Though the focus was on the contribution of program characteristics, the study found a mean reduction in recidivism of approximately 27%.

However, the make-up of the components of the evaluations was strongly predictive of effect size. For example, Lipsey and Landenberger note that, while the demonstration projects, led by researchers, returned a 49% reduction in recidivism, the practitioner-led programs did not reach that level, with a mean reduction in offending of approximately 11%. Pearson, Lipton, Cleland, and Yee (2022) identified a group of 69 studies and program evaluations that were predominantly cognitive-behavioral in nature and focused on recidivism reduction. Across all of these studies, the mean weighted r was .144, an approximately 14% reduction in offending. However, among those programs rated excellent from a methodological perspective (n=3), the average effect size rose to r=.254. Overall, the authors, despite relatively strong findings, conclude that cognitive-behavioral interventions are an approach to recidivism reduction that lie in a "borderline area of verification" (2002, p. 492) due to concerns about statistical homogeneity.

Wilson, Bouffard, and MacKenzie (2015) compiled data on evaluations of structured, group-oriented CBT programs for offenders. Almost 2/3 of the evaluations assembled were for programs derived from either the Moral Reconation Therapy (MRT) or Reasoning and Rehabilitation (R&R) models. From these studies, they were able to calculate a total of 74 different effect sizes across the 20 studies, as some studies included multiple treatment-control comparisons. The mean effect size for R&R programs, including experimental and high quality quasi-experimental studies was positive (8% reduction) and statistically significant (r = 0.16, p < .05). MRT, with only 6 high quality evaluations, had mean effect size r= 0.369, p < .05) overall, an effect that drops to r=.33 (p< .001) when limiting the analysis to the 4 true experiments. Overall, all of the higher quality studies had positive effects favoring the cognitive-behavioral treatment programs, with a mean effect of

r=.32 (p< .001). Unlike many other meta-evaluations, Wilson et al. were able to compare the relative effectiveness of the two most popular CBT programs, as "comparing the mean effect sizes across higher quality MRT, R&R, and other cognitive-behavioral programs suggests that R & R might be less effective than the other two (mean effect sizes of 0.33, 0.16, and 0.49, respectively; all are statistically significant at p < .05)," though this difference may be attributable to the larger variation in R&R-related outcomes (Wilson, Bouffard, & Mackenzie, 2015).

Landenberger and Lipsey (2015) conducted a meta-analysis of 58 experimental and quasi-experimental CBT studies in order to examine which factors and program covariates were the most strongly associated with successful outcomes. This meta-analysis confirmed the positive findings of CBT effects on recidivism; some aspect of the cognitive-behavioral approach has an impact on subsequent recidivism. The mean odds ratio indicated that the odds of not recidivating in the 12 months after intervention for individuals in the treatment group were 1.53 times as great as those for individuals in the control group. This represents a reduction from the .40 mean recidivism rate of the control groups to a mean rate of .30 for the treatment groups, a 10% decrease. The most effective configurations of CBT produced odds ratios nearly twice as large as the mean, corresponding to recidivism rates of around .19 in the treatment groups, though these were not necessarily observed in the "brand name" programs. Although designed to evaluate the broader impact of risk-guided correctional programs, Lowencamp, Latessa and Holsinger (2016) examine the relationship between treatment characteristics and outcomes. Of the 97 programs identified in this analysis, all were delivered in some form of community-based program. The relationship between treatment type and program effectiveness was significant (p<.05) and the direction indicated that those programs coded as either cognitive-behavioral or behavioral were more effective than those focused strictly on supervision intensity. Notably, those programs that included a cognitive component and focused on risk principles were even more effective in reducing recidivism (Lowencamp, Latessa, & Holsinger, 2016).

Another review of 30 CBT programs for offenders, using different selection criteria and published the same year, found that only 4 (20%) of the studies employed random assignment and only 7 (35%) involved probationers (Wilson, Bouffard, & Mackenzie, 2015). This prevalence suggests that there are relatively few CBT programs that have been evaluated through a randomized trial set in a probation agency. Landenberger and Lipsey (2015) do not identify the manner in which each program was classified, however, Wilson, Bouffard, & Mackenzie's review (2015) identified a

single study, published 24 year ago, that evaluated a probation-based CBT program using a true experimental design.

The identified study, completed by Ross, Fabiano, and Ewles (2018), was an evaluation of a Canadian implementation of the Reasoning and Rehabilitation program. Aside from being noteworthy for design and context, the Reasoning and Rehabilitation program shares a number of characteristics with the intervention designed in Philadelphia. Significantly, the intervention was delivered by trained probation officers, audio-visual presentations were used to stimulate discussion, and the program targeted high-risk offenders. Additionally, like the current program, the Reasoning and Rehabilitation program is, focused on modifying the impulsive, egocentric, illogical and rigid thinking of the offenders and teaching them to stop and think before acting, to consider the consequences of their behavior, to conceptualize alternative ways of responding to interpersonal trials and to consider the impact of their behavior on others, including victims. After nine months, a smaller percentage of the probationers participating in the life skills program were convicted of any new offense (47.5% v. 69.5%) and, of those that were convicted, a lower ratio were sentenced to incarceration (30% to 0%) (Ross, Fabiano, & Ewles, 2018). The lower rates of incarceration suggest that the offenses committed by the treated probationers were less serious, but no offense data or significance levels were reported.

Despite these results, the Reasoning and Rehabilitation evaluation is not without problems. First, the sample was relatively small. Although the researchers intended to assign 25 offenders to each of the relevant treatment arms, only 22 offenders were enrolled in the cognitive-behavioral program and 23 into the standard control condition (Ross, Fabiano, & Ewles, 2018). Secondly, the study reports 9-month outcomes but relies only on official conviction records. It is possible that many offenders, especially those committing serious offenses, would not have reached the conviction stage at the end of the follow-up period; the measures used may undercount the prevalence of offending. Lastly, although the direction of the results suggests a positive effect of the program, significance tests are not reported, for either group equivalence or outcomes.

The Georgia Cognitive Skills Experiment, which was not included in the above meta-analyses, was a later randomized, community corrections-based evaluation. The Georgia program, another adaptation of the Reasoning and Rehabilitation curriculum, was a much larger evaluation, including probationers being supervised in 16 parole districts in 1997-1998 (van Voorhis, Spruance, Ritchey, Listwan, & Seabrook, 2014). The overall sample (n=468), was divided between parolees assigned to receive the course (232), taught by trained officers, or a control condition. Randomization was

successful; there were no significant differences in the usual array of variables. Approximately 60% of those assigned to the course completed the entire program. Although treated parolees had lower rates of arrest, the study found no significant group differences in returns to prison, arrests, revocations or employment. Using a quasi-experimental design to examine the impact of completing the entire program, van Voorhis et al did find significant effects in incarceration, arrests and technical violations when controlling for group differences.

A follow-up randomized study to the Georgia Cognitive Skills Experiment was conducted from July 1998 to April 2000 and included 1,193 randomly assigned parolees. Using an event history approach, researchers found a 3.3% difference between experimental and comparison group returns to prison after 30 months. After 12 months, the control group arrest rate was only 2.5% greater ($p<.05$). These measures remained insignificant, even when combined with the sample gathered during the first study (Spruance, van Voorhis, Listwin, Pealer, & Seabrook, 2015.) Both Phases I and II of the Georgia Cognitive Skills Experiments, though they focused on high-risk probationers, assessed risk using subjective determinations of which offenders were "problematic", and not with an actuarial or validated instrument. Risk "screening" was done pre-random assignment, potentially influencing the external validity of results Only post-hoc analysis considered the relationship between risk (using another instrument) and outcomes. Perhaps the largest evaluation of a cognitive-behavioral skills program was carried out in Canada and is also absent from the meta-evaluations above.

The evaluation, following several years of pilot testing, included 4,072 offenders with dual diagnosis who completed the Cognitive Skills Training or were eligible for the program between 1990 and 1994 (Robinson, 2015). The intervention consisted of 36, two-hour group sessions offered in institutional and community settings that were led by trained correctional staff. Participants were randomly assigned to receive the course, or to a waitlist for potentially delayed treatment or to a no-treatment control group. Only 5.5% of the sample (225 offenders) completed the program in a community setting, and, since only 13 community wait-list offenders remained enrolled, the full wait-list sample was used for comparisons. The effect of the community-based programs was larger than that for the correctional program. Although there was only a 16.2% reduction in reconvictions among program completers from institutional programs, there was a 66.3% reduction in reconvictions among graduates from community programs. There was also a 39.1% reduction in any readmissions for offenders who had completed the program in the community (Robinson,

2015). This effect remained significant, even when including those offenders who had enrolled in, but failed to complete, the program.

Overall, the results for CBT interventions have varied in magnitude and significance but have consistently favored the experimental groups; offenders receiving CBT tended to offend less than their untreated peers. Treatment effects, the difference in the percentage of each group that reoffends, for some programs have been reported as high as 52%, but more typically have been in the range of an 18% to 25% reduction (van Voorhis, Spruance, Ritchey, Listwan, & Seabrook, 2004). Within the framework of recent meta-analyses, programmatic effects were reported from 8% to 16% and from 4% to 5% in large programs (Wilson, Bouffard, & Mackenzie, 2015). This suggests that some mechanism common to many CBT and CBT-like programs has the potential to meaningfully impact recidivism rates. Few studies prospectively explore potential moderators or dose-response relationships (van Voorhis, et al., 2018), but the need for more rigorous evaluations and replications is clear.

Jahoda et al. (2016) found based on a review of CBT treatment for individuals with mental retardation and depression that it is helpful for CBT clinicians to help the client create and use narratives and life stories. Using narratives in therapy helps root the treatment in everyday experience and gives the process a more naturalistic and less abstract focus. Both Jahoda et al. (2016) and Lynch (2014) make additional suggestions including that the therapist simplify language and use pictures where appropriate, proceed at a slower pace and use extensive rehearsals with the client, support the therapeutic work done in sessions by assigning homework, and by recruiting care-givers to provide assistance. Lynch (2014) goes on to state that no matter what theoretical framework and modality the therapist is employing, they must remain cognizant of the impact that having a disabled identity has on their client and make sure they are attuned to the dependency issues that are inherent when working with this population.

Carvalho and Alexandre (2023) investigated the efficacy of CBT based interventions to sexual offenders with intellectual disability: A systematic review of the last decade literature. Sexual violence is a significant public health problem and a devastating issue for mental health throughout the world. Clinicians and researchers have worked, over the last decades, to develop effective strategies aimed at reducing sexual abuse rates. Multiple treatment approaches for sex offenders have been developed, with Cognitive Behavioral Therapy (CBT) been the most widely used therapy model with recognized effectiveness. In this sense, the present study aimed to analyze and evaluate the effectiveness of CBT based interventions in the treatment of individuals convicted of sexual

crimes. For this purpose, a systematic review of articles published between 2012 and 2022 was carried out in the databases Pubmed, Science Direct, APA PsycNet and Scielo, with the keywords "cognitive behavioral therapy", "CBT", "sexual offender", "sexual crimes" and others. As a result, eight studies were selected that met the defined inclusion criteria. Cognitive-behavioral interventions have shown great promise in reducing sexual crime recidivism and improving self-control, emotional regulation, intra and interpersonal social skills, supporting the hypothesis that CBT may be a promising model of intervention in forensic settings with sex offenders with intellectual disability.

For the survey of studies, PubMed (Medline), Science Direct, APA PsycNet and Scielo databases were chosen, as they are internationally important reference bases for the search for scientific studies in the field of Psychology, Psychiatry, and mental health in general. The review method was based on the PRISMA Statement criteria (Preferred Reporting Items for Systematic reviews and Meta-Analyses), opting for a survey of international articles published in the last decade. The 08 selected articles were initially evaluated quantitatively regarding the year of production, in addition to the number of times they appeared in the different databases. Subsequently, they were qualitatively analyzed regarding the characterization of the sample, type of study performed, type of CBT intervention used, and results obtained regarding the effectiveness evaluation. From the descriptive analysis of the 08 selected studies, what can be highlighted is that, although there was no consensus between the findings about a standard CBT based intervention model, the results point to a strong indication that cognitive behavioral models of psychotherapy for sex offenders are in the basis of the most recent research in the literature. In fact, CBT is strongly described in literature over the last 10 years as an important intervention model for this population.

Orim and Orim (2018) investigated forensic psychotherapies for curbing offending behaviours among clients with intellectual disability (ID) in Nigerian rehabilitation centres. A survey of 750 participants comprising of experts in intellectual disability, psychiatrists, psychotherapists and psychiatric nurses, school psychologists, rehabilitators in special centers from South-west and South-south Geopolitical Zone of Nigeria was done through expert sampling technique to select sample for the study. Two research questions were formulated to direct the study. A 45-item questionnaire with a 4-point rating scale and reliability coefficients of 0.84 to 0.85 was used to canvass opinions of participants on the perceived effectiveness reality therapy, cognitive behavioral therapy and systemic therapy in curbing offending behaviors in clients with ID in Nigerian rehabilitation centers. The data collected were statistically analyzed using Multiple Regression Analysis. The findings revealed that reality therapy, cognitive behavioral therapy and systemic

therapy are effective therapeutic packages for curbing forensic and offending behaviors in clients with ID in Nigerian rehabilitation centers. It was recommended that these therapies should be used through the collaborative partnership with experts in special centers, government and management of the rehabilitation centers to help these clients overcome these psychological problems.

Lardén, Högström, and Niklas (2021) investigated effectiveness of an individual cognitive-behavioral intervention for serious, young male violent offenders: Randomized controlled study with twenty-four-month follow-up. Psychological recidivism-reducing interventions with serious, young violent offenders in residential care have unsatisfactory effects. We tested if a complementary individual cognitive behavioral therapy (iCBT) intervention focusing problem-solving, cognitive self-control, and relapse prevention reduces criminal recidivism beyond usual institutional care encompassing interventions such as social skills training and prosocial modeling (treatment-as-usual; TAU). 115 eligible serious, male violent crime offenders in five residential treatment homes run by the Swedish National Board of Institutional Care was used. Eighty-one (70%) 16 to 21-year-old youth at medium-high violent recidivism risk were included and randomized to an individualized 15 to 20-session CBT intervention plus TAU (n = 38) or to TAU-only (n = 43), 4–6 months before release to the community. Participants were assessed pre- and post-treatment, at 12 months (self-reported aggressive behavior, reconvictions) and 24 months (reconvictions) after release. Intent-to-treat analyses were applied. The violent reconviction rate was slightly higher for iCBT+TAU vs. TAUonly youth at 12 months (34 vs. 23%, d = 0.30, 95% CI: −0.24 to 0.84) and 24 months following release (50 vs. 40%, d = 0.23, 95% CI: −0.25 to 0.72), but neither of these differences were significant. Cox regression modeling also suggested non-significantly, negligibly to slightly more violent, and any criminal recidivism in iCBT+TAU vs. TAU-only youth during the entire follow-up. Further, we found no significant between-group differences in conduct problems, aggression, and antisocial cognitions, although both iCBT+TAU and TAU-only participants reported small to large within-group reductions across outcome measures at post-treatment. Finally, the 12-month follow-up suggested marginally more DSM-5 Conduct Disorder (CD) symptoms of "aggression to people and animals" in iCBT+TAU vs. TAU-only youth (d = 0.10, 95% CI: −0.40 to 0.60) although this difference was not significant.

Gerchow (2015) evaluated the impact of Two Cognitive Behavioral Therapy Programs on Recidivism in Chronic Juvenile Offenders with intellectual disability. The goal of the study was to examine the effect of two cognitive behavioral therapy programs on recidivism in a sample of chronic youthful offenders (N = 156) and to evaluate the relationship between commonly identified recidivism risk factors (i.e., prior criminal charges, parental history of criminal behavior, gang

involvement, mental health diagnosis, and number of probation violations) and re-offending. All participants were male, 19 to 23 years of age, and were currently, or had been, under the supervision of a Western state's county probation department. Participants were court-mandated to take either Aggression Replacement Training (ART, $n = 90$) or ART and Thinking for Change (T4C, $n = 66$). Survival analyses controlling for different custody release dates indicated that ART+T4C participants demonstrated lower recidivism rates than ART-only participants. The difference was first clearly depicted around Day 300 post-release when approximately 45% of ART-only participants had been arrested compared to 35% of ART+T4C participants. The difference became more apparent by day 500 when 80% of ART-only participants had been arrested compared to 40% of ART+T4C participants. The data provide a statistically significant defense that ART+T4C treatment participants are likely to remain in the community longer without re-arrest than ART-only participants. Regarding recidivism risk factors, a Kaplan Meier survival curve indicated that mental health diagnosis, history of parental arrest, gang involvement, felony, violent and weapons charges, and probation violations did not predict faster time to arrest. Interestingly, the Kaplan Meier analysis indicated that non-violent charges pre-treatment predicted post-treatment re-offending.

2.3.2. Family therapy and post-release school reintegration among dually diagnosed inmates

Family has a key role to play in the socialization and school reintegration of inmates with dual diagnosis. Barron (2012) conducted a study on effect of family therapy on recidivism among ex-offenders with intellectual disability. The showed that family therapy was effective in reducing substance abuse, promote quality school reintegration, reduce recidivism among these ex-offenders. Substance use puts returning prisoners at risk for a number of adverse outcomes. The possession of illegal drugs alone puts individuals at risk for arrest, parole violation, and reincarceration. Moreover, substance use may propel individuals to commit other crimes in order to finance drug purchases. Substance use also affects other outcomes in that it can impede family relationships, employment, and health. Family being closer to these individuals, their love and support help in reducing abuse of substances and criminal actions in the community. When discussing substance use, we also include alcohol intoxication, since abstinence from alcohol is frequently a condition of parole release. Furthermore, alcohol abuse has many of the same adverse consequences as drug use in that it increases the risk of violent behavior, disrupts family relationships and employment, and has ill effects on health. Many respondents reported post-release substance use and this was more common among women than men. Eight to ten months after prison, one-third of men and nearly half the women reported drug use or alcohol intoxication since their release.

The most common substances used post-release by men were alcohol (to intoxication), marijuana, and cocaine, respectively. Cocaine was the most common substance used post-release by women, reported by about one-quarter, followed by marijuana use and alcohol intoxication. Current use, measured as drug use or alcohol intoxication during the month of the interview, increased among men during the post-release period from about one-quarter 2 to 3 months after prison to one-third 8 to 10 months after release. Among women, however, current use remained constant throughout the post-release period, with about one-third reporting use at each post-release interview (Cobman, 2013). Most of the respondents who reported substance use after prison reported illegal drug use, with women being more likely than men to have used illegal drugs and cocaine in particular. Women's post-release use was also more likely than men's to be characterized by abuse and dependence. Post-prison substance use was reflective of pre-prison substance abuse patterns, except that reported rates of use were lower; it is likely that respondents underreported the actual level of use since we were asking about current rather than past behaviour, and many were under parole supervision.

Family therapy provides parent training. Parent training assumes that parents can be taught to positively change their children's behavior. Social skills training assumes that juveniles resort to delinquent tasks because they lack the skills to gain desired rewards through appropriate channels (Tarolla et al., 2012). Parent and/or social skills training might include psychoeducation (e.g., on effective discipline), prosocial behavior modeling, or instruction in negotiation. Evaluations of parent training programs indicate that training is more effective when provided to younger children compared to adolescents, although studies of both age groups are limited. Regarding older youth, Weathers and Liberman (2015) reported that probation violations were reduced after parents and teens participated in family-based behavioral contracting and negotiation training covering topics such as curfews, chores, grades, and school attendance. On the other hand, Bank, Marlowe, Reid, and Patterson (2019) compared the effectiveness of a behavioral parent training with standard juvenile court practices and found that participants in the parent-training group showed greater reductions in serious crime.

The majority of men and women with intellectual disability and associated mental health conditions received some tangible assistance from family members, yet respondents with mental health conditions reported receiving less tangible and emotional support from their families when compared to other returning prisoners. Othorn (2011) reported that they were often less likely to have lived with family members since release and less likely to have received financial support from family members or friends. There were gender differences in the timing of family assistance. Men

with mental health conditions were less likely than other men to receive tangible family support early in the post-release period, but levels of support increased over time and became similar to other men by the 8 to 10-month follow-up interview. Men with mental health conditions were less likely than other men to have lived with family members during the first 2 to 3 months after prison, even on the first night out. Similarly, they were less likely to have received financial support from family members in the first two to three months.

However, family support increased later in the post-release period so that eight to ten months after prison they were as likely as other men to have lived with family members or received financial support. Nonetheless, men with mental health conditions perceived lower levels of emotional support throughout the postrelease period and were less likely than other men to feel that they could count on family members for tangible support. Women with mental health conditions were less likely than other women to have lived with family members throughout the postrelease period; while mentally ill men became more likely to live with family after the first few months, this did not happen for women. With regard to financial support, mentally ill women had more support early in the post-release period, but this declined by the time of the 8 to10 month interview. Two to three months after prison, women with mental health conditions were as likely as other women to have received financial assistance from family members, but, eight to ten months after release, they were less likely to have received such assistance. The study recommended that family should be empowered through family therapy to equip them with the skills of supporting these returnees with dual diagnosis to live a quality life in the community.

Differential levels of family support may be related to a number of factors. In some cases, the family's capacity to provide assistance is diminished: respondents with mental health conditions were more likely than other returning prisoners to report familial problems with substance abuse. Domestic violence may be another reason: 15 percent of men and 40 percent of women with mental health conditions reported having been victimized by a family member before this incarceration. Women with mental health conditions were also more likely to have perpetrated violence against a family member before this incarceration (Kerb, 2017).

Men and women with mental health condition who did not receive support from families reported patterns of post-release drug and alcohol use that were generally similar to other returning prisoners, despite a greater history of pre-prison alcohol abuse (Comely, 2018). Slightly over one-third reported current drug use or alcohol intoxication (i.e., in the past 30 days) at the time of the eight to ten-month post-release interview. Among men, levels of substance use increased over the post-

release period, with about one-quarter reporting drug use or alcohol intoxication at the time of the two to three-month post-release interview. Among women, levels of substance use remained constant over the post-release period, with about one-third reporting use or alcohol intoxication at the time of the two to three-month post-release interview. Like other returning prisoners, women with mental health conditions were more likely than men to have used illegal drugs after release. The author stressed that family therapy is germane to provide support, reassure love and help returnee with dual diagnosis to live acceptably in the community.

Family therapy was effective in the study Hueji and Jiji (2018) in the treatment of substance abuse among returning prisoners with dual diagnosis. These outcomes are related to increased participation in substance abuse treatment services during prison through family therapy. Men and women with mental health conditions who participated in self-help programs like Alcoholics Anonymous (AA) or Narcotics Anonymous (NA) during prison had better outcomes after release from prison. Hueji and Jiji reported roughly one-half of men and women with mental health conditions who had participated in some substance abuse treatment services (including substance abuse treatment programs, AA or NA) while incarcerated did not commit crimes after one year of their release. After release, as with other returning prisoners, there was a substantial drop in the share receiving substance abuse treatment services. Two to three months after prison, those with mental health conditions were statistically no different from other returning prisoners, with roughly 3 in 10 receiving such services at the time of the interview. Eight to ten months after release, however, there was some evidence to suggest that men and women with mental health conditions who received substance abuse treatment services through family therapy had better outcomes. However, men with mental health conditions were more likely than other men to report current participation (i.e., within the past 30 days) in either substance abuse treatment or self-help groups at the time of the second study interview. Women with mental health conditions reported spending more post-release months in substance abuse treatment services over the course of the post-release period, though there was no difference from other women in current receipt of substance abuse treatment services at the time of the 8 to 10-month post-release interview.

Laub and Sampson (2013) maintained that the development of bonds with family members may help individuals desist from crime. The association with deviant peers may be more appealing to individuals who do not have meaningful family relationships. The lack of satisfying relationships leaves individuals more susceptible to the influence of deviant peers (Bahr et al., 2010). Marriage and children may create bonds that increase the costs of law violations and increase the motivation to avoid illegal activities. Several scholars have confirmed that support from family members is

associated with lower recidivism rates. One of the most consistent findings in the literature is that family have a strong influence on the onset and persistence of criminal behavior (Rebellon et al., 2018). Recent research confirms that a shift away from families who are involved in crime is one element in the desistance process. Law abiding family tend to provide law abiding models, reinforcement for law abiding behaviors, and discouragement of illegal attitudes and activities. In addition, associations with law abiding family may result in the development of bonds which constrain illegal activity.

The transition from prison to the community is a vulnerable time when individuals may be susceptible to the influences of deviant family members (Agnew, 2015). Individuals who are lonely and lack law abiding family members may be particularly likely to succumb to offers from drug-using family member. Marriage and employment may alter networks such that individuals spend less time associating with deviant family members and more time associating with law abiding persons. As a result, those who obtain a job or have family support may have a decrease in the number of and amount of time spent with deviant peers. With fewer friends to encourage and reward deviant behavior, motivation for committing crime may diminish.

Ulmi and Fulon (2011) examined family therapy when working with community maladjusted boys with dual diagnosis and their families. He evaluated eleven families and found that about 50% to 55% of the cases improved after treatment. Interestingly, Ulmi and Fulon found that the dually diagnosed boys from families described as disengaged did not improve after treatment. While this study had some methodological concerns, such as, a small sample size and no control group, it did provide the first confirmation that family therapy was effective in the treatment of community integration problems among this population. The authors stressed that when youth are identified as having dual diagnosis they are placed in their home schools without caring about whether the schools are adequately prepared for them or not. Most of these schools may not have a single teacher trained in special education and lack adequate facilities or may not be in any way prepared to accommodate the special needs of the child. The child in these schools relies on the programme coordinators who visit children in the programme occasionally to help and access their special needs. This may result to school and community adjustment issues (Hammachek (2011). As observed during the research in some of the areas, the coordinators visit these children once in a month or once in a school term (that is, once in three months). Given the shortcomings inherent in ordinary schools, these children will definitely face difficulties in their day to day operations. If these children are not helped out of these difficulties they may feel neglected and unwanted. Such feelings will impact negatively on their self – concept. According to Hammachek (2011), self –

concept can develop from a feeling of be-longing, worthiness and competency. The individual needs to feel liked, cared for, and being recognized as a unique person. Recognition of what the child can do may tend to enhance his/her self – confidence and eventually his/her self – concept.
Ulmi and Fulon (2014) in their study shifted study of family therapy to studying depression, anxiety disorder, criminal behaviour and school refusal among adolescent girls with dual diagnosis and their families. Treatment results with anxiety disorder and criminal behaviour cases appeared to be highly significant while that of depression was less significant. Data reported by Ulmi and Fulon found that 86% of adolescents in criminal behaviour category showed more skills in avoiding criminal behaviours. They also found that 88% of individuals with criminal behaviour showed more quality in community living and socializing with others. When the authors compared this study to similar studies using different treatment methods they found that family therapy yielded the best results. These findings seemed to confirm that family therapy was an effective intervention that was superior to other methods. The study revealed that family become more involved in their lives.

Stanton and Todd (2017) studied the effectiveness of family therapy in the treatment of male adolescent school dropouts with dual diagnosis and their families. Six adolescents with dual diagnosis participated in the study. The purpose of the study was to experiment the effect of family therapy on adolescents who had dropped out of school, get them back to school and encourage families to improve their relationships so as to provide adequate motivation for the dropouts. Direct observation data were collected via recorded video sessions for the dependent variable. They found that the level of positive change was more than double in the relationships among family members and school children returned to school. Specifically, these researchers found that post-treatment indifferent families displayed better boundaries between subsystems. These results were maintained at follow-up. The researcher recommended that family therapy should be used to help adolescent boys and girls both who are still in school and dropouts to improve their motivation to learn and positive perception about life generally.

Stanton and Todd further noted that maladjustment can be avoided if the teacher talks with the pupils about alternative sources of information, about new technology and creates occasions for these to be used. The lack of a permanent encouragement of children from the teacher or parents' part to ask questions and to appreciate their content can lead to negative aspects appeared in stimulating curiosity. Moreover, discontinuities can appear if will to know and explore, specific to young students' age, is not satisfied through providing them attractive books, materials cleverly made, equipment, games or if these are not presented in different educational occasions. Obstructing

young students from choosing the activity or work or play partners can diminish their interest for educational process. For this reason, the teacher must support children's valuable initiatives. Encouraging children to work in small groups or pairs to leaf through a book or listen to something together can stimulate children's interest for school activities. Young children's perseverance in solving problems can diminish if the teacher does not talk with each of them or with the group, this one having the possibility to offer students other approach possibilities, stimulating them to come back to and reflect over the proposed task.

In another study, Szapocznik and Kurtines (2011) compared family therapy, psychodynamic child therapy and a control condition in the treatment of nine offenders with dual diagnosis. They found that both treatment conditions were essentially equivalent in reducing behavioural and offending behaviours among the population. The important difference was that family therapy improved the family's functioning, while only treating the child resulted in deterioration in the family's functioning. Furthermore, their study on the effectiveness of family therapy training showed that trainees in family therapy showed higher levels of community participation than the control group. The study stressed that solving dysfunctional family relationship is the single most important objective in family therapy. When such broken relationships are resolved it provide blind students with the zeal to enroll and complete their school.

Oke and Idila (2014) undertook a randomized controlled study assigning families in which adolescents were having criminal and offending behaviours. Subjects were randomly assigned to a strategic structural systems engagement (experimental) condition or to an engagement-as-usual (control) condition. The two conditions were operationalized by establishing therapist behaviours that were permitted within each treatment group. The outcome measures of this study were difficult to ascertain and focused on establishing the level of rapport between the therapist and client. The authors of this study noted that this cohort of young people was particularly difficult to engage in treatment. Thus, one of their key findings was that subjects in the experimental condition were engaged and reduced their criminal behaviours at a dramatically higher rate than subjects in the control condition. The authors conceded that, although not intended, the study design was limited by the fact that one therapist administered both the control and experimental intervention, making clear differences in the modalities difficult to discern or attribute to the model of the individual therapist.

Szapocznik (2017) undertook a further randomized control study, assigning participants to one of three interventions: family therapy, psychodynamic child therapy, and a recreational control condition. The purpose of the study was to investigate which of these therapies is more effective in strengthening family ties and adolescent who had just returned from juvenile justice system. Participants included thirteen dually diagnosed boys (aged 6-12 years), who presented with behavioural and criminal behaviours in community which kept them out of school. Five outcome measures were utilized in this study, administered pre- and post-intervention and at a one year follow up. The control condition was found to be significantly less effective in retaining cases than the two treatment conditions. Interestingly, the most significant finding in this study that supported the position and intervention of family therapists was the dramatic effect on the family functioning measure with the family therapy condition improving community living.

Reimers (2015) reported that families interviewed about their experiences of family therapy in repairing family relationships and improving motivation for school among adolescent boys felt more comfortable when equipment had been thoroughly explained and discussed with them at the start of therapy. Locke and McCollum (2011) investigated family views of 'live' supervision and the use of the one-way mirror and how this impacted on therapy in resolving school adjustment issues among dually diagnosed youth. Satisfaction ratings were high, ratings of the intrusiveness of the supervision were low, and participants rated the supervision as helpful in the process of therapy. They also report a range of qualitative comments. On the one hand participants commented that it was good to have more people thinking about the family problems, while some participants commented that the screen made them feel uncomfortable and could be disruptive of the process. These comments are at odds with the quantitative findings of the study. A key problem with this study is that participants were asked to complete forms within sessions at a family therapy training clinic and – despite measures taken to ensure anonymity – clients may have been reluctant to be honest at least in their ratings of satisfaction with the therapy in improving behaviours and reducing crimes in the community.

Lever and Gmeiner (2020) interviewed families who dropped out of therapy after one or two sessions, as well as their therapy teams. For the families in this study, expectations of therapy were not addressed and they were surprised by the set-up of therapy (for example, the use of a one-way mirror and reflecting team). Families also reported that they felt unable to question the method or focus of the session. Thus, families did not feel powerful enough to raise the conflict of expectations, and this powerlessness was reinforced by the lack of discussion and negotiation around expectations. This sense of powerlessness appeared to have had a detrimental effect on the

therapeutic objective of solving relationship issues among families of dually diagnosed youth who had community maladjustment issues; which they suggest was responsible, at least in part, for the families' dropout from therapy. This study highlights the importance of discussions around the process of therapy to yield expected result. Moreover, the findings suggest that these discussions should be raised by the therapist, as the family may be reluctant to raise such issues at the start of therapy, due to perceived power imbalances. One of the aspects of therapy families reported made them feel uncomfortable, was the use of a one-way mirror for observation of the family and the disruption of the session caused by the reflecting team.

In a larger-scale selected-prevention study, Rapee and Koke (2016) tested a six-session family therapy, parent-group intervention addressing substance abuse and criminal behaviours in dually diagnosed youth who engaged in bully, theft and failures in school related activities due to adjustment issues. They screened over 50 school children and identified 36 (aged 5 to 10 months) who were rated by their parents as poor in school adjustment. 90% already had at least one anxiety disorder. The children were randomized to receive the parent intervention or a monitoring-only control condition and were assessed 12 months later. The 90-minute parent sessions focused on psychoeducation about anxiety, parental management techniques, parent-school involvement, the role of overprotection in maintaining anxiety, principles and application of exposure hierarchies, cognitive restructuring of the parents' own worries, and identifying high-risk transition periods. Although only 73% of mothers attended five or more sessions, children assigned to the intervention had fewer issues and improved in community living (mean = 0.7; SD = 0.8) at 12-month follow-up than controls (mean = 1.1, SD = 1.0), with 50% of treated and 63.5% of untreated youth having an substance abuse issues at follow-up. The effect of assignment to the intervention on number of substance abuse was, using structural equation modeling, significant. No effect was found on BI, which decreased over the year in both groups. Although the intervention showed a small effect size for reducing substance abuse and criminal tendencies, it does point to the potential of family therapy for reducing substance abuse in dually diagnosed youth.

Adolescents' social interactions and relationships with parents have been related consistently to various aspects of school adjustment, including academic accomplishments. For example, Feldman and Wentzel (2012) investigated the effective of family therapy in addressing school adjustment issues by children with intellectual disability. The study adopted a 3x2x2 factorial matrix. A sample of 15 children with intellectual disability was used in the study. a questionnaire instrument was used to ascertain school adjustment level of the selected children. The study revealed that family therapy

was significantly effective in improving school attendance, school performance and enthusiasm for learning among children with intellectual disability. The authors stressed that motivation and interest and social behavior at school are also important indices in facilitating school adjustment among children with intellectual disability. The researchers also found that parenting that was the most supportive of adolescent adjustment was characterized by the consistent enforcement of fair standards for behavior, encouragement of bidirectional communication and valuing of adolescents' opinions, expectations for self-reliant and mature behavior, and concern for emotional and physical well-being. Recent studies also have documented significant associations between aspects of teacher–student relationships and children's social and academic adjustment at school (Birch and Ladd, 2012).

Feldman and Wentzel (2012) stressed that first, parents actively teach children about themselves and what they need to do to become accepted and competent members of their social worlds. As a result, children adopt sets of values, standards for behavior, and goals that adults would like them to achieve. Even when explicit communication of expectations does not occur, children learn and adopt many of these beliefs and goals through observational learning. Second, the qualities of children's social relationships are likely to have motivational significance. When their relationships with parents are nurturant and supportive, blind children are more likely to adopt and internalize the expectations and goals that are valued by their parents than if their relationships are harsh and critical. Therefore, parents and other socialization agents hold the potential to create optimal contexts within which learning of goals and values is likely to take place.

It is on above account that Birch and Ladd (2012) stated that parental care and attitude has vital importance in determining the progress of children with intellectual disability in their development and school adjustment. Attitude of parents have a profound effect on the integration of children with intellectual disability. It is very important whether the attitude and actions of parents are developed by sympathy or due to limitations of their child rather than the real needs and problems faced by children with intellectual disability. The initial adjustment of every disabled child must start from the family. Children with dual diagnosis who are not deprived in care, love and affection from family show better adjustment outside the family. Parents need to handle an active supporting role in enriching the learning process of the child with dual diagnosis. Many parents due to many other concerns in daily life do not give proper importance for this fact. Acceptance of their child disability and adjusting to it positively at an earliest time will help parents overcome their negative feelings and contribute in the child's adjustment to disability greatly. Parent-child relationships are influenced by many factors in their immediate environment apart from socio-emotional, financial

factors of family. Support from relatives and community are also vital factors. Parental factors including temperament their personality has influence on the degree of relation they keep with the child. Parenting dimensions, styles and the quality of the parent–child relationship play crucial roles in psychological development in general (Herman and Dornbusch, 2017).

2.3.3. Mental healthcare services and post-release school reintegration among dually diagnosed inmates

A study of the mental health needs and effectiveness of provision for young offenders with intellectual disability in custody and in the community in England examined the effectiveness of interventions to reduce offending behaviour and address mental health needs of youth (Harrington and Bailey, 2015). Youth reported high levels of satisfaction with the services offered although continuity of care was a frequent problem. Young offenders in the community were found to have significantly more needs than those in secure care and the needs increased for those youth discharged from secure facilities back into the community. Future offending was not predicted by mental health needs or alcohol and drug abuse problems. The study also found that continuity of care was highly variable and that the needs of young offenders were often not met, due to a lack of recognition of those needs by program staff. These findings suggest that continuity of care is important and that young offenders with moderate to severe mental health needs should be identified by a structured screening process. There should be tailored interventions using a cognitive behavioural and problem-solving skills approach based on assessment of risk, needs and learning abilities. In short, a multi-modal approach focusing on the individual, family, and peer group is required.

An evaluation of the San Francisco Mentally Ill Offender Crime Reduction Grant (MIOCRG) Program found that the enhanced treatment group had fewer bookings, convictions, and days in jail than individuals in the treatment-as-usual group. These findings were all statistically significant, indicating that there is a high probability that the program approach was successful (The Center on Juvenile and Criminal Justice, 2023). Among the lessons learned from this evaluation: 1) A “one-size-fits-all” approach does not work. This project required that projects be collaborative and that they address locally-identified gaps in jail and community-based services for persons with a serious mental illness. 2) Mental health treatment often lessens mentally ill offenders' dependence on illicit drugs and provides the skills necessary to build a life free from drug dependence. 3) Harm reduction, a philosophy of reducing harm in drug use but still holding drug abstinence as a long-term goal, has been found to be more realistic and effective with the severely mentally ill population than a strict abstinence model. 4) Clients under increased supervision have been found to violate parole more

often than those in less intensive treatment programs, however higher rates of recidivism can likely be explained by the higher degree of interaction with clients in an intensive case management and the strict abstinence model probation officers are used to insisting parolees follow. 5) The decision to treat or incarcerate for technical violations has grave consequences for the client, such that if he or she is sent back to prison, he or she may be later released without treatment. 6) A close working relationship between probation and mental health and the sharing of treatment methods can lead to a decrease in probation violations for mentally ill offender clients.

In a study conducted by Haft and Khimerg (2018), returning prisoners with physical health conditions, as a group, had the fewest distinct challenges. Their greatest needs after release were employment and income support, as health problems often impeded their ability to work. Two strategies are indicated. Employment outcomes might be improved if health issues were addressed early in the postrelease period so that health conditions would not deteriorate. Nonetheless, a share of returning prisoners with health problems will require nonwork sources of financial support. Applications for disability and other forms of public assistance should be submitted during prison to minimize the amount of time between release and receipt of services. Returning prisoners with mental health conditions experienced reentry difficulties across a range of domains: they had poorer housing and employment outcomes and reported higher levels of postrelease criminal involvement. This multitude of difficulties, combined with lower levels of family support, suggests that an integrated case management approach may be beneficial. Returning prisoners with substance abuse problems, regardless of gender, engaged in more postrelease substance use and criminal behavior than other returning prisoners and were more likely to have been reincarcerated within one year of release. Increasing the amount of treatment available to substance abusing men and women may serve to reduce aggregate rates of postrelease use.

Stoch (2014) reported returning prisoners' capacity to access community-based care for their chronic health conditions was limited by a lack of health insurance. Most respondents were without health insurance in the first two to three months after release. Though respondents may have had insurance before prison, benefits were likely suspended or terminated during their incarceration. Medicaid benefits, for example, are suspended during incarceration and the reinstatement of benefits can take several months. Rates of insurance coverage increased by the time of the eight to ten-month interview, with men reporting private insurance most often and women reporting Medicaid coverage, but the majority remained uninsured. This results in a situation where health could deteriorate and hinder reentry success.

In Manita (2018), fifteen percent of men and over one-third of women (35 percent) reported mental health conditions. As noted above, mental health status was also assessed through respondent self-reports at the pre-release interview and respondents indicated whether they had been diagnosed with depression or other mental illness. While the actual prevalence is probably double what was reported, as other researchers have found in this population (James and Glaze 2016), the study's definition of mental illness is nonetheless based on respondent self-reports while in prison. Of those reporting mental health conditions, 60 percent of men and 57 percent of women reported receiving treatment during prison, meaning about 4 in 10 did not. Most respondents reported using drugs and alcohol regularly during the six months before this incarceration, and many had substance abuse problems that remained unresolved at the time of release. We assessed probable abuse by asking respondents how often they used drugs or drank to intoxication in the six months preceding their current prison term. The study defined substance abuse as alcohol intoxication or drug use more often than once a week. This level of use was correlated with a greater number of social and interpersonal problems related to substance use (e.g., problems at work, arguments at home) and more signs of addiction (e.g., physical tolerance, withdrawal symptoms). By this definition, 7 out of 10 men and women had a substance abuse problem. Interestingly, there were very few casual users: about 2 in 10 respondents used drugs or drank to intoxication weekly or less often and about 1 in 10 reported no use at all. (Throughout this report, we use the term substance abuse to refer to preprison use more than once a week. This is distinct from substance use, which refers to any drug use or alcohol intoxication.)

During prison, 52 percent of men and 41 percent of women with substance abuse problems received some treatment services—this term is used to encompass participation in formal substance abuse treatment regimens as well as self-help groups like Alcoholics Anonymous (AA) and Narcotics Anonymous (NA)—and 29 percent and 14 percent, respectively, participated in formal substance abuse treatment programs (Wetern & Koilat, 2015). Given the chronic nature of substance abuse, even with treatment, many returning prisoners are at risk of relapse and require aftercare upon release. Most respondents (84 percent of men and 92 percent of women) reported at least one physical health, mental health, or substance abuse problem, and large shares (39 percent of men and 62 percent of women) had multiple types of health conditions.

This is especially relevant to practitioners, as it is important to recognize that clients or patients presenting with one type of health problem often have other coexisting conditions. Clinical experience with co-occurring mental health and substance abuse problems has shown that incomplete attention to one type of problem decreases the likelihood of successfully treating the

others (Quello, Brady, and Sonne 2015). Notably, women reported more co-occurring conditions than men. Among men with physical health conditions, one-fifth also reported mental health conditions; among women this figure was over one-third. The majority of respondents with physical health conditions, regardless of gender, also reported substance abuse problems. Among respondents with mental health conditions, male and female, nearly all had co-occurring physical and substance abuse problems. Of particular interest are those who are dually-diagnosed with mental health and substance abuse disorders: we estimate that one-tenth of all returning men and one-quarter of all returning women fit this description. Among respondents with substance abuse problems, one-half of men and two-thirds of women also had physical health conditions; moreover, 16 percent of men and 37 percent of women with substance abuse problems reported mental health conditions.

Sureka et al (2017) examined the impact of Sudarshan kriya and related practices on male detainees with non-psychotic mental problems. Results indicated substantial improvement in overall functioning, reducing discouraged state of mind, positive prosperity, general well-being, imperativeness, and all out positive general well-being.3 No analytical research has explored the different basic and administrative components of the jails that could have a strong impact in affecting the psychological well-being of the detainees. Studies with creative and plausible techniques in the jail must be directed to analyze their viability and execution for positive emotional wellness among detainees. Earlier, it was believed that prison administration of India is not properly codified to manage and regulate laws and rules for the treatment of vulnerable inmates in correction homes or the process in which a mentally ill juvenile should be treated or provided medical help. These ignorant factors make this problem more complex. Lack of proper regulations causes the inmates to divert from the path of recovery and follow the path of a seriously ill mental patient. There were following suggestions made by court-

i. Identify inmates who ought to be discharged relying upon the nature & seriousness of offense, the period of sentence & some other element applicable as per the Committee.
ii. Transfer of inmates from jail to another and physical appearance of under-detainees before court could be restricted for time being and more emphasis should be given to video conferencing, to make sure safe distancing among inmates and court staffs.
iii. Arrangement of action plan to be made explicitly for every jail along with clinical specialists for proper assessment, checking for fulfilling compliance.
iv. Arrangement of facility of isolation rooms, isolation of new inmates, basic assessment of inmates, accessibility of medical help, examining of staff, sanitisation and tidiness of jail

premises, availability of masks, constraining of individual visits for inmates and suspension of gathering.

Dulcius (2018) investigated psychotropic use among youths with intellectual and developmental disabilities. The authors examined the prevalence and correlates of psychotropic medication prescribing among outpatient youths with intellectual and developmental disabilities. Methods: The authors reviewed cross-sectional data on medications for 1,333 youths (ages 5–21 years) with intellectual and developmental disabilities who were referred to a community-based mental health crisis service. Descriptive statistics and regression analysis were used to describe the study group and to identify correlates of psychotropic polypharmacy, antipsychotic use, and anticonvulsant use in the absence of a seizure disorder. Most youths were taking psychotropic medications (N51,139, 86%), often three or more medications (N5733, 55%) from two or more drug classes (N5919, 69%). Most youths received antipsychotics (N5863, 65%), and a third (N5432, 32%) were taking anticonvulsants in the absence of a seizure disorder. Greater severity (number of psychiatric diagnosis and recent psychiatric hospitalization), older age, and living in a group home were significantly correlated with these practices. Polypharmacy, antipsychotic use, and anticonvulsant use in the absence of seizure disorders were common among youths with intellectual and developmental disabilities referred to the crisis service. Older age, number of psychiatric diagnosis, living in a group home, and psychiatric hospitalization correlate with these prescribing practices. These elevated prescribing rates in a very vulnerable population warrant further study.

Few previous studies have assessed the use of psychotropic medications among youths with intellectual and developmental disabilities. In a study of 176 outpatient adolescents with intellectual disability in Australia, 20% received psychotropic medications, ,1% received psychotropic polypharmacy, and psychotropic medication use was associated with male gender and behavioral problems. Among 472 adolescents institutionalized with mild intellectual disability in the Netherlands, 30% received psychotropic medications. Of those with mental health or behavioral problems, 35%–50% received psychotropic medications, 15% received antipsychotics, and about 10% received treatment with two or more psychotropic drug classes. Age, male gender, and behavioural problems were all associated with psychotropic medication use. A study that included 141 Medicaid-covered children with intellectual and developmental disabilities and psychiatric diagnosis in the United States found that 37%–40% received antipsychotics, and 25%–29% received mood stabilizers. A study of 60 children with intellectual and developmental disabilities

receiving Medicaid in Kansas found that 17%–37% received antipsychotics and that psychotropic medication use was associated with having a psychiatric diagnosis.

Pjani and Shrugret (2013) investigated psychotropic drugs intake in people aging with intellectual disability: Prevalence and predictors. Psychotropic medication is frequently administered to people with intellectual disability with mental health and/or behavioural problems, instead of other non-pharmacological interventions. This study describes the mental health and behavioural problems of people aging with intellectual disability, their psychotropic medication intake, and the factors contributing to a greater medication intake. The sample consisted of 991 people with intellectual disability over 45 years. Descriptive statistics and multinomial logistic regression were carried out. Results: Antipsychotics were the most used psychotropic drug. Older people with mild intellectual disability living in institutions and affected by mental health and behavioural problems were more likely to take larger amounts of psychotropic medication. Antipsychotics continue to be widely used by people with intellectual disability and mental and behavioural health problems, especially those in institutionalised settings. Future research should consider if medication intake could be reduced providing better supports in the community and non-pharmacological interventions.

Prendergast, et al, (2014) found that prisoners who participated in in-prison and community aftercare programming had a three-year re-incarceration rate of 27 percent. In comparison, prisoners who had failed to participate in aftercare treatment services, and prisoners in the "no treatment" control group, had three-year re-incarceration rates of 82, 79, and 75 percent respectively. The findings from the five-year follow-up of these same offenders indicated that prisoners who participated in aftercare programming had lower rates of reimprisonment, had higher levels of post-release employment, and were in the community for longer periods of time before re-imprisonment (Prendergast, et al, 2014). Similar findings have been reported for programs that target probationers. A study of 134,000 'drug-involved' probationers sentenced in Florida which examined the effects of non-residential substance abuse treatment on arrest found a positive impact on recidivism rates. The number of individuals expected to recidivate and the number of expected arrests was reduced for those involved in non-residential treatment programming, as evaluated at the 24-month follow-up (Lattimore et al., 2015). The most promising treatment interventions in terms of reducing recidivism rates for chemically- dependent offenders appears to be programs that combine both in-prison TCs with post-release community treatment. Methodologically-rigorous studies have demonstrated how offenders who participated in both in-prison and community treatment had lower recidivism rates than offenders in all or most of the comparison groups

(Prendergast, et al' 2014). Conversely, research has also found that high-intensity supervision, case-management, monitoring, and the increased use of referrals are ineffective in reducing the recidivism rates of chemically-dependent offenders. However, a preliminary evaluation of the Kentucky Reentry Courts, an intervention strategy for drug-involved offenders, indicated that the program did reduce re-offending among the small sample of offenders studied.

Treatment Alternatives to Street Crime (TASC) is one of the original models for community-based treatment interventions for chemically-dependent offenders. Essentially the objective of TASC and similarly-modeled programs is to provide drug addicted offenders in the criminal justice system with referrals to treatment interventions in the community upon their release. The research assessing the effectiveness of TASC and similarly-modeled programs has produced inconsistent results as to their effectiveness in reducing recidivism (Rhodes and Gross, 2017). This may be explained by the fact that not all of the programs that offenders are referred to have the same program intensity and integrity. The evaluations could not control for the quality or quantity of the treatment programs offenders were referred to, which makes evaluation of their effectiveness difficult to determine.

Buoteng (2019) investigated pharmacological treatment in forensic psychiatry—a systematic review. Pharmacological treatment is of great importance in forensic psychiatry, and the vast majority of patients are treated with antipsychotic agents. There are several systematic differences between general and forensic psychiatric patients, e.g. severe violent behavior, the amount of comorbidity, such as personality disorders and/or substance abuse. Based on that, it is reasonable to suspect that effects of pharmacological treatments also may differ. The objective of this systematic review was to investigate the effects of pharmacological interventions for patients within forensic psychiatry. Methods: The systematic review protocol was pre-registered in PROSPERO (CRD42017075308). Six databases were used for literature search on January 11, 2018. Controlled trials from forensic psychiatric care reporting on the effects of antipsychotic agents, mood stabilizers, benzodiazepines, antidepressants, as well as pharmacological agents used for the treatment of addiction or ADHD, were included. Two authors independently reviewed the studies, evaluated risk of bias and assessed certainty of evidence using Grading of Recommendations Assessment, Development and Evaluation (GRADE).

The literature search resulted in 1783 records (titles and abstracts) out of which 10 studies were included. Most of the studies included were retrospective and nonrandomized. Five of them focused on treatment with clozapine and the remaining five on other antipsychotics or mood stabilizers. Five studies with a high risk of bias indicated positive effects of clozapine on time from treatment start

to discharge, crime-free time, time from discharge to readmission, improved clinical functioning, and reduction in aggressive behavior. Psychotic symptoms after treatment were more pronounced in the clozapine group. Mainly due to the high risk of bias the reliability of the evidence for all outcomes was assessed as very low. Conclusion: This systematic review highlights the shortage of knowledge on the effectiveness of pharmacological treatment within forensic psychiatry. Due to very few studies being available in this setting, as well as limitations in their execution and reporting, it is challenging to overview the outcomes of pharmacological interventions in this context. The frequent use of antipsychotics, sometimes in combination with other pharmacological agents, in this complex and heterogeneous patient group, calls for high-quality studies performed in this specific setting.

2.3.4. Correctional special education services and post-release school reintegration among dually diagnosed inmates

Prisoners worldwide 'tend to have lower than average attainment and poor experiences of compulsory education' (Tett et al., 2012). An examination of the data in a number of jurisdictions bears this out. In Guinea, one report puts the number of prisoners who are 'functionally illiterate' as high as 90per cent (Prison Insider, 2020). In Mexico, 56 per cent of prisoners left school early (Rangel & Torrijo, 2019). In their study of prisoners in the USA, Davis et al. (2013) found that 37 per cent of individuals in state prisons had attained less than a high school education in 2004, compared with 19 per cent of the general population aged 16 and over. Further, only 14 percent of state prisoners in the USA had at least some post-secondary education, compared with 51 per cent of the general adult population. In Brazil, out of nearly 500,000 prisoners, over half lacked literacy skills or basic education (Rangel & Torrijo, 2019). Only 1 per cent of prisoners in Italy hold a university degree. The imprisoned population with literacy difficulties, or no educational certificate, is four times higher than the general population (Tett et al., 2012). In Norway, among prisoners, there was a higher drop-out rate in comparison to the general population. Of prisoners under 25, over 85 per cent had not completed three years of upper secondary school (Davis et al, 2013). In the Republic of Ireland, nearly 53 per cent of prisoners were in the Level 1 or pre-Level 1 category for literacy (the highest level being 5). The average literacy level among prisoners was much lower than that of the general population.

In England and Wales, one in five prisoners needed help with reading/writing or numeracy and 47 per cent of prisoners stated that they had no qualifications, compared to 15 per cent of the working-age general population. (Prison Insider, 2020). In the Netherlands, 27 per cent of early school

leavers were at some stage suspected of committing a crime, compared to 7 per cent of non-school leavers. Ludlow et al. (2019) reported that in Victoria, Australia, only 40 per cent of people in prison had basic literacy and numeracy skills. In Australia as a whole, 36 per cent of people released from prison had not completed their final year of compulsory secondary school education, while 18 per cent had completed only two years of secondary school education. The equivalent figure for indigenous people leaving prison in Australia was almost double this, at 30 per cent. In New Zealand, Ludlow et al. (2019) reported that an estimated 57 per cent of prisoners had low levels of reading and writing skills and consequently had few or no formal qualifications.

Prison inmates in the U.S. who receive special education and vocational training are significantly less likely to return to prison after release and are more likely to find employment than peers who do not receive such opportunities (Davis *et al.*, 2013). The findings, from the largest-ever meta-analysis of correctional educational studies, suggest that prison education programs are cost effective. Using a hypothetical pool of 100 inmates, the three-year reincarceration costs for those who did not receive correctional education would be between $2.94 million and $3.25 million. In comparison, for those who did receive correctional education, the three-year reincarceration costs would be between $2.07 million and $2.28 million. This means that reincarceration costs are $0.87 million to $0.97 million less for those who receive correctional education. Inmates who participated in correctional education programs had 43% lower odds of recidivating than those who did not. This translates to a reduction in the risk of recidivating of 13 percentage points. It may also improve their chances of obtaining employment after release. The odds of obtaining employment post-release among inmates who participated in correctional education was 13% higher than the odds for those who did not participate in correctional education. In the UK, a report (Justice Data Lab, 2015) analysed education in prisons funded by the Prisoners' Education Trust (PET), which provides funding to enable prisoners to undertake a wide range of learning. The analysis of nearly 6,000 prisoner records found that PET's beneficiaries re-offended a quarter less than the control group (19% compared to 26%, a reduction of between 5 and 8%). PET has established the Prisoner Learning Alliance (PLA) to bring together diverse non-statutory stakeholders to inform future priorities, policies and practices relating to prison education, learning and skills. Membership includes the Directors of the Prison Radio Association, the Open University, the National Alliance for Arts in Criminal Justice, NIACE (National Voice for Lifelong-Learning), the Education and Training Foundation, the Shannon Trust, and the Prison Governors Association.

Good communication skills for offenders with dual diagnosis returning to the community are central to new and successful lives and new chances. Effective speaking and listening skills are essential to entering and sustaining work. Employers identify good communication skills as highly important to their operation. The opportunity to work offers opportunity for change. This not only supports the offender but their families and the community at large. However, improving communication skills may not rank highly on the offender's priority list. 'Selling' the idea of developing speaking and listening skills can be a hard task. Offenders need to realise that communication skills are a vital part of resettlement and considerably improve job opportunities. Some of the key speaking and listening skills needed in most places of work include: Asking questions, responding to questions from colleagues and customers, following verbal instructions, talking to and collaborating with colleagues on work-related activities using appropriate and polite language, taking instructions and messages and passing them on to colleagues, and Contributing to meetings, training sessions and reviews (Wye, 2012). Thus, correctional special education quintessential for inmates with dual diagnosis as it prepares them to live a functional and useful life upon returning to the community.

Incarceration of offenders has increased dramatically over the years. Nonetheless, more ex-prisoners still go back to the prison. The failure of correctional institutions to reduce crime needs to be addressed. Rehabilitation of prisoners via qualitative education is necessary. Doner (2023) investigated the perception of prison staff and the academic staff of College of Education, Agbor on the effect of qualitative education on prisoners as a panacea for their rehabilitation and integration into the society. A 24-item questionnaire was developed and administered to 200 subjects randomly drawn from staff of five prisons in Delta State and the staff of College of Education, Agbor. The result showed that the respondents agreed that qualitative and vocational education for prisoners were inadequate. There was no relationship between prisoners' rehabilitation and formal education. Based on the finding, it was recommended that prisoners should be given qualitative and education for rehabilitation and integration.

In a study of prisoners participating in special education in prison in Western Australia, Giles (2016) found that the more classes prisoners completed, the lower the rate of re-incarceration. Research in South Africa (Vandala and Bendall, 2019) led to the conclusion that special education in prison transforms prisoners' lives by boosting self-esteem and confidence, improving literacy levels, and equipping prisoners with valuable skills. The researchers determined that education in prison 'transforms offenders into law-abiding and productive citizens on release'.

Those who are employed tend to have less recidivism than those who are not employed, although the research findings vary (Uggen et al., 2015). As suggested by life course theory, individuals who are not employed lack the social integration gained from employment. Through full-time work, offenders may develop bonds with law abiding employees and become dependent on a pay check. Temptations to participate in illegal behavior may be constrained by the potential loss of their job and pay check. Work may increase associations with law abiding peers, leave less time for associations with deviant peers, and increase bonds to conventional society. Informal social controls are a part of work because of responsibilities and monitoring that occur in the workplace. Research in both the United Kingdom and the United States indicates that employment stability is an important factor in maintaining desistance (Laub and Sampson, 2013). Thus, correctional special education services, inmates gain employment skills for quality life after prison.

Badaga and Cruz (2015) investigated that relevance of social skills acquisition through correctional special education services for offenders with intellectual disability. The study reported that correctional special education equips offenders with intellectual disability and other comorbid conditions with social skills that would enable to function socially in the community through communication, networking, and norms compliance. The authors stressed that social skills programmes through correctional special education are programmes designed to equip offenders with intellectual disability the desirable social competence needed to function in the society. One of the major problems of offenders with intellectual disability is social incompetence which greatly affects both their interpersonal and intrapersonal relationships. It is this deficit in social skills that predisposed them to various criminal and offending behaviours in the community.

The level of a person's ability in social skills directly relates to his social growth and is demonstrated in his/her socially acceptable behaviour. Thus, desirable social skills are the acceptable social pattern of behaviour which helps these children gain social reinforcement and acceptance. They are a set of behaviors acquired through observation, modeling, practice and feedback can be learned and contains verbal and nonverbal behaviors and include appropriate and effective responses, there is more interactive, maximize social reinforcement and it is developed based on the individual characteristics and the environment in which the child lives and grow through teaching. Offenders without disability may acquire social skills effortlessly but those with intellectual disability are required to be taught systematically through context-based or community-based instruction. They are taught how to greet, answer greetings, make requests, express feelings and act in various social contexts. These programmes are also in form of positive behaviour support to apply behavioral

principles in the community in order to reduce problem behaviors and build appropriate behaviors that result in durable change and a rich lifestyle. Social skill programmes seek to have offenders with intellectual disability participate in group projects that emphasize working together on social skills such as giving and receiving compliments, and how to express thankfulness (Fabiyi, 2019). Additionally, instruction in conflict resolution benefits students as they interact in a workplace and community.

Sandido and Ulson (2019) investigated the quality of adaptive behaviour training for inmates with dual diagnosis. The study reported that over percent of the offender did not receive quality adaptive skills training as part of correctional special education training. Persons with dual diagnosis at lower intellectual functioning and adaptive behaviour levels have essential disorders of cognitive processes, disorders of sensory and motor functions, therefore, the formation of specific social adaptation is an important direction. Programmes on self-help skills are specially designed for offenders with dual diagnosis. The development of self-help skills is critical to the offender's progress towards independence. Self-help skills include eating, dressing, and maintaining personal hygiene. Eating skills range from finger feeding and drinking from a cup to using proper table behaviours (such as using cutleries and serviette), serving food and following etiquette. Dressing skills include buttoning, ironing, zipping, lacing, buckling and tying. Personal hygiene skills are developed in an age-appropriate context. Basic hygiene skills include toileting, face and hand washing, tooth brushing, hair combing, shampooing, choice of cream, hair style and use of perfumes and cosmetics. Depending on the needs of the child, programmes on self-help skills are designed to teachin practical terms how to fulfill these basic responsibilities in home and community. The formation of self-help skills in offenders with intellectual disability does not happen spontaneously. Training on such skills using task analysis is the work of specialists. The basis of it makes a special programme that considers offender's possibilities at the certain time and focuses on the immediate goals. Step-by-step teaching of self-care skills makes the basis of work with such offenders.

Bozick at al. (2018) identified a total of 57 studies that evaluated recidivism and 21 studies that assessed employment following participation in special education programmes in prison. They found that prisoners participating in educational programmes were 28 per cent less likely to re-offend than detainees who did not participate in these programmes. However, they found that this reduction in the rate of recidivism did not always lead to gainful employment after release. People who did not participate in education in prison were as likely to obtain post-release employment as those who did. The impact of a prison sentence outweighed a prisoner's educational achievements while incarcerated. Despite this, Bozick et al (2018) nonetheless concluded that this demonstrated

the value of providing prisoners 'with educational opportunities while they serve their sentences if the goal of the program is to reduce recidivism'.

In Canada, approximately 75 percent of offenders who enter the federal correctional institutions in Canada are identified as having employment needs (Gillis and Andrews, 2015). Offenders released from confinement encounter a myriad of challenges with respect to securing employment. These include personal factors such as low self-esteem, low motivation, skills deficit, lack of training, mental illness, and substance abuse; a lack of stable accommodation; social factors such as negative peer influence, an absence of family support and a poor employment record. Obtaining legal employment is one of the best predictors of the post-release success of ex-prisoners (Visher, Winterfield, and Coggeshall, 2022). Importantly, offenders have identified employment as a key factor in post-release success. Research has found that ex-prisoners who received correctional special education held more paid jobs after release than others the control group. They are able to secure a legitimate job, particularly higher-quality positions with higher wages are less likely to recidivate than those exprisoners without legitimate job opportunities. The utility of holding legitimate jobs has been explained with the application of social control theory, which posits that work operates as an informal mechanism of social control.

The utility of legal employment in reducing the risk of re-offending is supported by research conducted in the UK where an analysis of data gathered in the 2001 Resettlement Survey found that offenders nearing release who had secured paying, post-release jobs, believed that they were less likely to re-offend than offenders nearing release without post-incarceration secured jobs (Niven and Olagundoye, 2022). Similar results have been achieved in the U.S. with employment programs sponsored by the Safer Foundation (Finn, 1999). One analysis of the impact of community-based employment interventions that used random assignment of participants to the programs on re-offending, however, found no statistically significant effect on the likelihood that program participants would be rearrested. (Visher, Winterfield and Coggeshall, 2022). Similarly, quasi-experimental studies of community employment programs have also failed to find significant reductions in recidivism for participants in employment service interventions.

Although in theory it is believed that employment will decrease the likelihood that an offender will re-offend, the link between employment and re-offending is unclear (Webster et al., 2021). It has been suggested however, that the gains of employment with respect to reducing re-offending may be linked to the quality of the job, rather than merely being employed. Furthermore, the relationship between legal employment and reduced recidivism may be heavily influenced by the interaction of

the following factors: access to education, stable accommodation, having employment-related qualifications, not having substance abuse-related problems, and being proactive in asking for help with job searches (Niven and Olagundoye, 2022). Researchers have noted that it is vital that the individual needs of ex-prisoners be identified and matched with specific services. Among the more important employment interventions are job readiness classes, vocational education, GED certification, job training, job placement, and job monitoring by a case manager (Visher, Winterfield, and Coggeshall, 2022).

2.3.5. Vocational skills training and post-release school reintegration among dually diagnosed inmates

Tylor and Fuji (2020) investigated vocational skills training for inmates with dual diagnosis. The study focused on assessing the extent of participation of prison inmates in vocational skills acquisition programmes in Sokoto State. The main objective of the study was to assess the extent of participation of prison inmates in vocational skills acquisition programmes for self –reliance and sustainable economic growth in Sokoto State. One research question and one null hypothesis guided the study. A survey research design was adopted for the study. The population of the study was 1226 respondents at the time of the study. The sample size of the study was 351 comprising all the 85 prison officials and 266 convicted prisoners of the Sokoto central prison deliberately selected for the study. The instrument used for data collection was self-structured questionnaire tagged "Questionnaire on the participation of prison inmates in vocational skills acquisition programmes (QPPIVSAP). The instrument was subjected to face validation by three experts. The reliability coefficient for the instrument was 0.80. The data collected was analysed using descriptive statistics of mean and standard deviation, while the null hypothesis was tested using t-test at the probability of 0.05 level of significance. The findings of the study revealed that VSA programmes for prison inmates were only found available in Sokoto Central Prison and there were prison inmates trainees in the prison. The findings further revealed that the trainees participated in the available VSA programmes to a high extent in the study area. Based on these findings, the study recommended among others that the Nigerian Prisons Service (NPS) should extend the VSA programmes to other convict and satellite's prisons for inmates' self –reliance and sustainable economic growth of the state and the country at large. The NPS should introduce more vocational trades that are not available in the prisons. Such as electrical and electronics repairs, graphic arts, shoe making and automobile mechanic skills acquisition programmes while the prison inmates should be encouraged to patronize the programmes for their self-reliance and sustainable economic growth of the society.

Offenders released from correctional institutions are confronted by social, economic and personal challenges that tend to become obstacles to a crimefree lifestyle. Some of these challenges are as a result of the consequences of incarceration and the difficulty of transiting back into the community. It is along this background that Omole (2019) investigated the effectiveness of After-Care service in the rehabilitation and supply of labour into the economy by ex-offenders in Oyo and Lagos state commands of the Nigerian prison service. The research adopted the descriptive survey research design. A purposive random sampling method was used to select 450 respondents. The main instrument used for the study is a single questionnaire with five subsections, each sub section serving as an independent instrument. Data were analyzed using Analysis of Variance (ANOVA). Findings showed that space acquisition and supervision programmes had effect on reintegration and supply of labour into the workplace ($F= 76.565$; $p< 0.05$and $F=29.630$; $p< 0.05$ respectively).

Asokhia and Osumah (2013) carried out a study titled "assessment of rehabilitation services in Nigerian Prisons in Edo State". The study adopted a descriptive survey research design. The population of the study consisted of 731 prison inmates in the six prisons of the State. Using stratified random sampling technique, a total of 147 respondents were selected as a sample for the study. The instrument for data collection was a checklist titled "adopted rehabilitation services in Nigerian Prisons in Edo State (ARSNPESC)". The research data were analysed using simple percentage. Some of the major findings of the study revealed among others that adult prisoners participated in adult and remedial educational programmes and educational development project in the sixprisons of the study area. The study is related to this present study as they are both concerned with rehabilitation of inmates. However, both studies differ as Asokhia and Osumah study was on the assessment of rehabilitation services in Nigerian Prisons in Edo State and the programmes available in the prisons; while the present study assessed the extent of participation of prison inmates in vocational skills acquisition programmes for self-reliance and sustainable economic growth in Sokoto State, Nigeria.

Abba (2016) carried out a study titled "Rehabilitation of Prison inmates through Vocational Skills Acquisition programmes as Perceived by Prison officials in the North-West States, Nigeria". Descriptive survey design was adopted for the study. The population of the study was 1,592 prison officials. The researchers used deliberate sampling technique to determine the sample size of 351 respondents. A 40 items questionnaire was the instrument used to elicit information from the respondents. The data were analysed using mean and standard deviation. Some of the major findings were that: prison inmates participated in VSA programmes and the programmes have enhanced

socio-economic well-being of the inmates to a high extent in the study area. The study is related to the present study because both studies focused on vocational skills acquisition programmes for rehabilitation of inmates but differed from the former which assessed the rehabilitation of prison inmates through vocational skills acquisition programmes as perceived by prison officials in the North-West States, Nigeria while the present study was cantered on assessing the extent of participation of prison inmates in vocational skills acquisition programmes for self-reliance and sustainable economic growth in Sokoto State, Nigeria.

Omoni (2019) carried out a study titled "An Assessment of the Qualitative Education for Prisoners in Delta State, Nigeria". Descriptive survey design was adopted for the study. The population of the study consisted of all the 310-prison staff in the five prisons in Delta State: Agbor, Kwale, Ogwashi-Uku, Sapele and Warri, and 166 academic staff of the College of Education, Agbor making total of 476 respondents. The researchers used stratified random sampling technique to determine the sample size of 300 respondents for the study. The instrument for data collection for the study was a self-structured questionnaire, whereas the data was analysed using simple percentages and chi-square. The findings of the study revealed among others that there is no significant difference in the opinion between prison staff and academic staff of the College of Education, Agbor, on the adequacy of prisoners' vocational and formal education programmes. The findings also showed that the two groups agreed that prisoners need vocational and formal education. The study is related to this present study because both studies focused on educational programmes for rehabilitation of prison inmates but differed from the former which assessed the qualitative education for prisoners in Delta State, Nigeria while the present study was cantered on assessing the extent of participation of prison inmates in vocational skills acquisition programmes for self-reliance and sustainable economic growth in Sokoto State, Nigeria.

Akpunne (2014) carried out a study on Access to Basic Needs as Correlate of Desire to Participate in Rehabilitation Programmes among Inmates of Nigerian Prisons. The study adopted a descriptive survey research design. The population of the study consisted of 631 prison inmates of Kirikiri medium security prison, Lagos State, Nigeria. The researcher used purposive sampling technique to determine the sample size of 230 respondents for the study. The instrument for data collection was a self-structured questionnaire titled "Questionnaire on Desire to Participate in Rehabilitation Test (QDPRT)". The data were analysed using inferential and descriptive statistics. The findings of the study showed that there is no correlation between quality and quantity of feeding and desire of inmates' to participate in rehabilitation programmes. There is a significant positive correlation

between sanitary conditions and desire to participate in rehabilitation programmes among inmates of Nigerian prisons. Both studies are related in analytical tool used but differed in scope and the area of study.

Abba and Kodi (2019) conducted a study on vocational rehabilitation of militia extremist group in Nigeria. The study focused on the rehabilitation of Boko-haram prison inmates' through Technical and Vocational Training Skills Acquisition (TVTSA) programmes in North East, Nigeria. The study adopted descriptive survey research design. Three research questions guided the study where Three null hypotheses formulated were tested at 0.05 level of significance. The population of the study was 317 prison comprising 250 males and 67 females. The sample size for the study was 356. Taro Yamane formula was used to determine the sample size. The instrument for data collection was structured questionnaire titled; rehabilitation of Boko-haram prison inmates through vocational skills acquisition programmes questionnaire (RBPITVSAPQ), The questionnaire was validated by three expects in the Department of Industrial Technical Education, University of Nigeria, Nsukka. Cronbach alpha reliability method was used to estimate the reliability which stood at 0.89. The data collected were analyzed using Mean and Standard Deviation while t-test was used to test the null hypotheses at 0.05 level of significance. Mean of 2.50 was used as a bench mark for accepting or rejecting items. Therefore, items with a mean of 2.50 and above were considered agreed; while items with mean of 2.49 and below were considered disagreed. The finding of the study revealed that Boko-haram prison inmates participate to the high extent in the TVTSA programmes for their rehabilitation. Boko-haram prison inmates through TVTSA programmes enhanced the social well-being and as well the economic well-being of the inmates to a high extent. Challenges that affected the rehabilitation of Boko-haram prison inmates through TVTSA programmes in North East States include: inadequate government agencies support, inadequate support from non-governmental organization (NGOs), inadequate vocationally trained personnel to train the Boko-haram prison inmates in various vocations, inadequate modern and well-equipped vocational training workshops. The study Recommended strategies for improving rehabilitation of inmates through TVTSA programmes: provision of more governmental supports and non-governmental agencies and recruitment of more vocationally trained personnel for effective rehabilitation of prison inmates in the prison among others.

Finding and maintaining employment are critical dimensions of reentry. Research has shown that employment and higher wages are associated with lower rates of criminal activity (Bernstein and Houston 2000). At the same time, returning prisoners face many obstacles in gaining legitimate employment, including low levels of education, limited vocational skills and work experience, and

a reluctance on the part of employers to hire ex-prisoners (Harlow 2003; Holzer, Raphael, and Stoll 2014). About one-half of men had found some employment within the first 2 to 3 months after release; this figure rose to three-quarters by the time of the 8 to 10-month post-release interview. Employment rates were lower among women but followed a similar pattern: roughly 4 in 10 found some employment in the first 2 to 3 months and this figure rose to 6 in 10 by the time of the 8 to 10-month post-release interview. However, not all those who found jobs were able to maintain employment. Eight to ten months after release, just over half the men and one-third of women reported they were currently employed. Men generally reported better employment outcomes than women and had worked for more post-release months.

Returning prisoners supported themselves through a combination of means that included family and friends, legal employment, casual or "under the table" work, public assistance, and illegal activities (Zalt & Al Hat, 2014). Family and friends, legal employment, and "under the table" work were the most commonly reported sources of financial support. Comparing respondents' pre- and postprison circumstances, it was found that men and women were less self-sufficient 8 to 10 months after release than they had been before this incarceration and reliance on personal social networks increased. Family and friends were particularly important early in the post-release period and served as the most common source of income two to three months after release, cited by nearly two-thirds of men and women. Eight to ten months after release, more returning prisoners supported themselves through work, but family and friends continued to be an important source of support. One-half of men supported themselves through legal employment, but family and friends were the second most common source of income, reported by 4 in 10; by contrast, two-thirds of men had supported themselves through a job before prison. Among women, family and friends remained the predominant source of income, reported by 6 in 10, with relatively fewer women (3 in 10) supporting themselves through legal employment; before prison, one-half of women had supported themselves through a job.

In Quara's (2019) study, it was reported that men and women with mental health conditions had poorer employment outcomes after release compared to other returning prisoners, despite having had similar employment histories before this prison term. We found that men and women with mental health conditions had been less likely to find any employment, worked for fewer postrelease months, and were less likely to have current employment at the each of the postrelease interviews. These poor outcomes were observed early in the postrelease period and persisted through the 8 to 10-month follow-up interview. Just 36 percent of men and 26 percent of women with mental health

conditions had found any employment within the first 2 to 3 months out of prison. Eight to ten months after release the shares reporting any postrelease employment were 59 percent among mentally ill men and 49 percent among mentally ill women. These rates of employment were significantly lower than the rates reported by other returning prisoners. Moreover, 8 to 10 months postrelease, returning prisoners generally reported employment rates in line with or exceeding their preprison employment levels; those with mental health conditions, however, had not caught up to their levels of pre-prison employment.

In keeping with their lowered employment, men and women with mental health conditions were less likely than others to support themselves financially through work and more likely to rely on other sources for income (Sodiq & Fenton, 2018). The majority of men and women with mental health conditions reported receiving some income from family members and friends. Eight to ten months after release, just 3 in 10 men and 2 in 10 women with mental health conditions were supporting themselves through legal employment, rates that were significantly lower than other returning prisoners. This was offset, somewhat, by the fact that men and women with mental health conditions were more likely than others to receive Social Security disability payments. There were, however, gender differences beyond these broad similarities. Although family members and friends were the most common source of financial support reported by mentally ill men and women eight to ten months after prison, the likelihood of receiving family support differed by gender.

Men with mental health conditions had a similar or greater likelihood of receiving financial support from family members eight to ten months after release (depending on the specific measure used) but women with mental health conditions were less likely than other returning women to receive financial support from family members (p=.13 and this finding is consistent with other measures of family financial support not shown in Figure 13). A similar pattern was observed with regard to public assistance programs other than disability. Men with mental health conditions were more likely than other men to receive benefits such as food stamps. Women with mental health conditions, however, were no different from other women in terms of receiving assistance. In sum, men with mental health conditions had a similar or greater likelihood of receiving various forms of financial assistance relative to other men, while women with mental health conditions typically had a similar or lower likelihood of receiving these supports compared to other women.

Bayim (2018) carried out a study on vocational rehabilitation for inmates. The study aimed to know the effectiveness of vocational training programs for inmates in rehabilitation and reform centers

and their impact on their future adaptation. The study sample consisted of (100) inmates who benefited from vocational training programs provided to them in rehabilitation and reform centers in the Hashemite Kingdom of Jordan. The sample was chosen randomly. The descriptive analytical approach was used because this method is suitable for studies of this type. Thus, the questionnaire was used as a tool to measure the effectiveness of vocational training programs for inmates in rehabilitation and reform centers and its impact on their future adaptation. The results of this study showed that the effectiveness of the vocational training programs came at a positive level and to a high degree with a mean of (3.81). Based on the results obtained, the study recommended the need to work on increasing the vocational training programs offered to inmates in line with developments, especially techniques used. In addition, the need to activate and update the teaching methods used in training in modern ways that keep pace with the modern era. Then providing the financial capabilities and equipment necessary to hold more different training programs that suit the trends, tendencies, and desires of the inmates.

2.4. Summary of literature review

Past studies consistently reveal shortcomings in the Nigerian criminal justice system's ability to effectively rehabilitate inmates with intellectual disabilities and mental health issues. This inadequacy often exacerbates the "school-to-prison" trend, where individuals with disabilities are more likely to end up incarcerated than receive proper educational and support services. Previous research in Nigeria has primarily focused on general prison conditions and the challenges faced by inmates without specific emphasis on those with intellectual disabilities and mental health conditions. This lack of targeted research has resulted in a dearth of understanding regarding the unique needs and effective interventions required for this vulnerable population.

The current survey research aims to fill these gaps by specifically exploring rehabilitation and school reintegration interventions tailored for inmates with intellectual disabilities and associated mental health conditions in Nigeria. By gathering empirical data through surveys, the study seeks to identify existing challenges, gaps in services, and potential strategies for improving outcomes and reducing the school-to-prison pipeline for this marginalized group. The literature review underscores the systemic failures within the Nigerian criminal justice system regarding inmates with intellectual disabilities and mental health issues, while highlighting the lack of focused research in this area. The current study intends to address these deficiencies by providing targeted insights and recommendations for enhancing rehabilitation and school reintegration efforts.

CHAPTER THREE
METHODOLOGY

This chapter focused on research design, population of the study, sample and sampling technique, instruments, method of data collection as well as method of data analysis.

3.1. Research design

This study adopted a mixed-methods approach to gather comprehensive data for the study. The mixed method research methodology involved the integration of qualitative and quantitative data collection and analysis techniques. It allows researchers to gather both subjective and objective data, providing a more comprehensive understanding of the research problem. The mixed method research methodology offers a valuable approach for researchers seeking to explore complex research questions. By combining qualitative and quantitative methods, this approach provided a comprehensive understanding of the research problem, enhanced validity and reliability, and offers increased flexibility (Creswell & Plano, 2017). This study made use of this approach to obtain a picture of rehabilitation and school reintegration interventions for inmates with conditions of dual diagnosis in Nigeria. This design was preferred because it is more economical and would allow the researcher to use representative sample to make inference of situation. It is useful for opinion and attitude studies, it depends basically on questionnaire and interview as means of data collection.

3.2. Area of study

The South-South geopolitical zone of Nigeria is one of the six geopolitical zones in the country, known for its unique cultural, economic, and political significance. It comprises six states: Akwa Ibom, Bayelsa, Cross River, Delta, Edo, and Rivers. This zone is strategically important due to its abundant natural resources, particularly oil and gas, which play a pivotal role in Nigeria's economy (Okoli, 2015). The South-South zone is located in the southern part of Nigeria, bordered by the Atlantic Ocean to the south. Its geographical features include coastal areas, mangrove swamps, rivers, and tropical rainforests. The Niger Delta, a significant part of this zone, is one of the largest river deltas in the world and is characterized by a complex network of waterways and rich biodiversity. The population of the South-South zone is diverse, with various ethnic groups including the Ijaw, Ibibio, Efik, Urhobo, Itsekiri, and Esan, among others. The region is linguistically diverse, with many local languages spoken alongside English, which is the official language (Uzoma, 2021).

The South-South zone is the economic powerhouse of Nigeria due to its vast oil and gas reserves. It is the primary oil-producing region in the country, contributing significantly to Nigeria's Gross Domestic Product (GDP) and government revenues (Okeke, 2017). Major oil companies operate in this region, and cities like Port Harcourt, Warri, and Uyo are hubs for the petroleum industry. Apart from oil and gas, the South-South zone also engages in agriculture, with crops like rubber, palm oil, cocoa, and cassava being significant. The region's extensive waterways support fishing and aquaculture, which are vital for local economies and food security.

Politically, the South-South zone has been influential in Nigerian politics, particularly in advocating for resource control and addressing environmental degradation caused by oil extraction. The region has produced key political figures, including Goodluck Jonathan, who served as President of Nigeria from 2010 to 2015. The Niger Delta Development Commission (NDDC) and the Ministry of Niger Delta Affairs were established to address the region's developmental challenges and manage its resources more effectively (Nwosu, 2018). Culturally, the South-South zone is rich and vibrant, with numerous festivals, traditional dances, music, and art forms. The annual Carnivals in Calabar and Port Harcourt are major cultural events that attract tourists from around the world. Traditional beliefs coexist with Christianity, which is the dominant religion in the region.

The South-South zone faces significant environmental challenges, primarily due to oil exploration and exploitation. Oil spills, gas flaring, and pollution have led to the degradation of land and water resources, adversely affecting agriculture and fishing. The region also contends with issues of flooding and erosion, which are exacerbated by climate change (Eze, 2019). Infrastructure development in the South-South zone varies, with major cities like Port Harcourt and Benin City having relatively better infrastructure compared to rural areas. The region has several airports, seaports, and an extensive network of roads and bridges that facilitate transportation and trade. However, infrastructure deficits remain in many areas, particularly in rural communities. The South-South zone grapples with social issues such as youth unemployment, poverty, and militancy. The rise of militant groups in the Niger Delta, driven by grievances over resource control and environmental neglect, has led to periodic conflicts and disruptions in oil production. Government and community efforts continue to focus on addressing these challenges through education, job creation, and improved governance (Obi, 2022).

The South-South geopolitical zone of Nigeria is a region of great economic importance and cultural richness, but also of significant environmental and social challenges (Onuoha, 2020). Its contributions to Nigeria's economy, particularly through the oil and gas sector, are immense.

However, addressing the region's developmental and environmental issues remains crucial for its sustained growth and stability.

The South-South geopolitical zone of Nigeria has several correctional facilities managed by the Nigerian Correctional Service. As of recent data, there are 25 correctional facilities in the South-South geopolitical zone of Nigeria (Ministry of Interior, 2022). These facilities vary in size and capacity, ranging from maximum security prisons to medium and minimum security custodial centers.

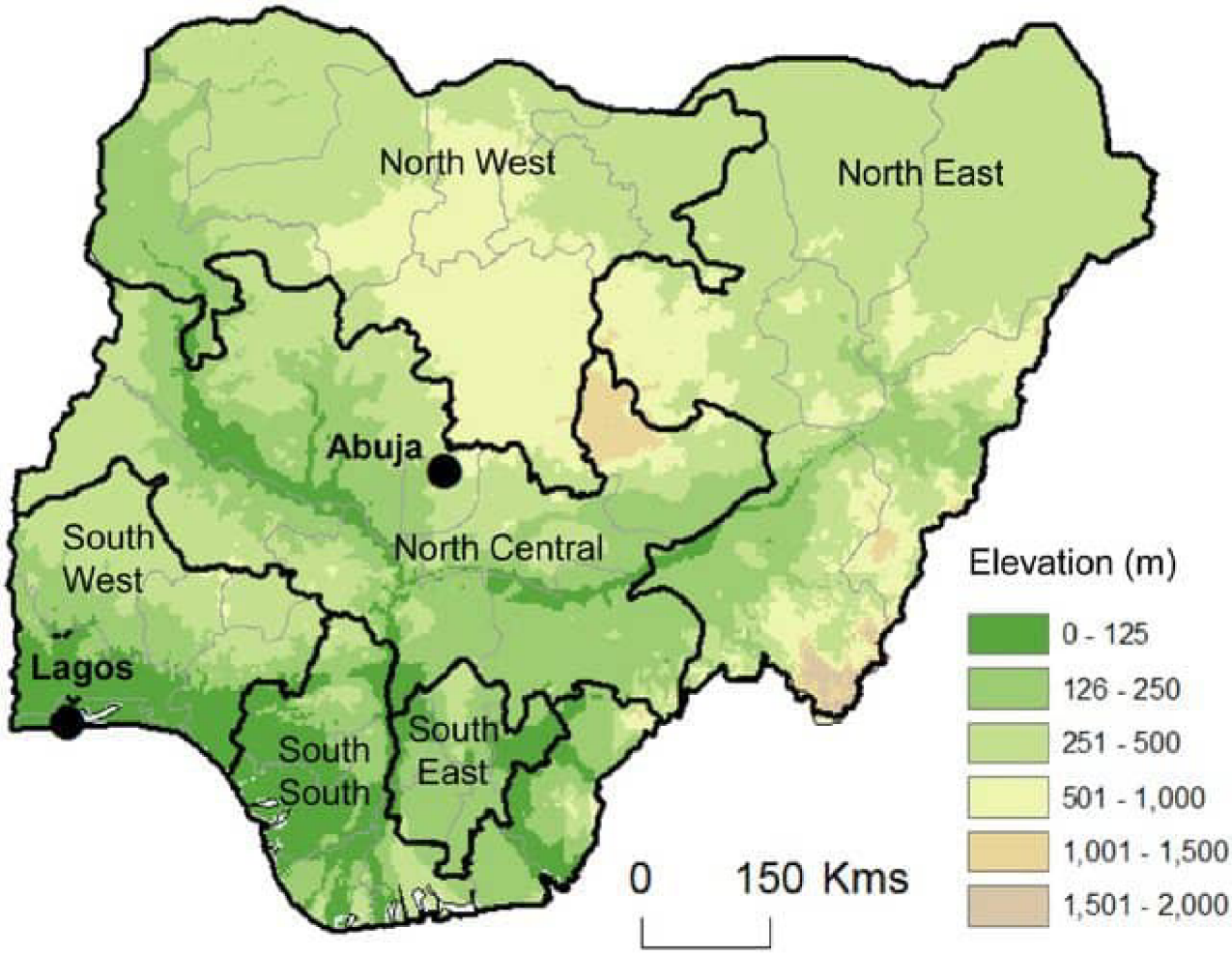

Figure 1: Map of Nigeria showing the six geopolitical zones with south-south located at the base of the map

3.3. Population

The population of this study comprised all the teachers, parents, and the all state comptrollers of correctional services in the South-south Geopolitical Zone in Nigeria. The chosen population is justified because it encompasses the key stakeholders in the education and

rehabilitation of students with dual diagnosis as well as the correctional services responsible for their care.

3.4. Sample and sampling technique

The sample of this study consisted of three hundred (320) respondents comprising 216 parents, 98 teachers and 6 State Comptroller of Correctional Services to capture insights from individuals directly involved with or affected by the rehabilitation and school reintegration of inmates with dual diagnoses. Parents provide crucial information about early academic and behavioral challenges, teachers offer perspectives on educational interventions and reintegration efforts, and the State Comptrollers contribute insights on correctional facility rehabilitation programs. Purposive sampling ensures that respondents possess the specific knowledge and experience necessary to address the study's objectives, providing targeted and relevant data to understand and mitigate the school-to-prison pipeline in Nigeria.

3.5. Instruments for data collection

Primary and secondary data were collected in this study. To collect primary data, three instruments were used: a questionnaire, an inventory and an unstructured interview. The questionnaire, titled "Rehabilitation Interventions for School Reintegration (RISR)," was a 42-item, self-designed instrument. It was used to gather respondents' opinions on the predictive contribution of the studied interventions and services to school reintegration among inmates with dual diagnosis. This instrument consisted of two sections: Section A and Section B.

Section A required respondents to provide their sociodemographic information, such as sex and respondent category. Section B consisted of 42 hypothetical statements that required respondents to rate their opinions on a 5-point scale ranging from Strongly Agree to Strongly Disagree. This scaling allowed for a better understanding of the situation. The questionnaire was administered to all respondents in the study.

The second instrument was the Inventory of Prevalence, Rearrests, and Crime (IPRC), which provided secondary data on the prevalence of mental health conditions among inmates with intellectual disabilities from 2010 to 2021. The data included detailed information on the duration before re-arrest. This instrument was administered only to the State Comptroller of Correctional Services in each of the six states used in the study. It consisted of 17 items designed to record offending behavior among inmates with dual diagnosis.

The third instrument was an unstructured interview, which elicited information from the State Comptroller of Prison Services and/or their deputies on the availability and state of intervention programs for inmates with dual diagnosis. The researcher used key interview questions on the policies, practices, programs, and services for inmates with dual diagnosis during each interview session. However, the questions were not asked in a specific order, allowing respondents the flexibility to provide their responses. This method was considered appropriate for the study due to its flexibility in sequencing the discussion and providing respondents an opportunity to offer detailed information on the phenomenon under study.

Moreover, the researcher could further probe by asking both planned and unplanned questions triggered by the interviewees' responses, leading to a deeper understanding of the phenomenon. Follow-up questions were used to guide and help unfocused respondents return to the topic at hand and were deployed when more clarification and exploration of the phenomenon were necessary. Additionally, this method allowed the researcher to collect non-verbal information through gestures and facial expressions, enhancing the understanding and interpretation of verbal information during data analysis.

3.6. Validation of the instruments

The instruments were presented to three professionals in Special Education Department and two experts in Measurement and Evaluation, University of Calabar, to vet the instruments appropriately. The instruments were finally presented to the supervisor to do the final vetting by making necessary changes before they are pilot tested to establish reliability.

3.7. Reliability of the Instruments

A pilot study was conducted in the Southwest Geopolitical Zone of Nigeria before the main data collection. This population was not part of the study area. Prior to this, the researcher discussed the research instruments with the supervisors to determine whether they accurately measured what they were intended to measure and to assess the extent to which the instruments provided answers to the research questions posed. This was followed by the pilot study. The purpose of the pilot study was to evaluate the accuracy of the research instruments in a real-world environment, ensuring that they measured what they were intended to measure. For example, the findings from the pilot study helped the researcher modify some of the interview questions and the questionnaire. Additionally, the purpose of the study was clarified in the questionnaire to enhance respondents' understanding and the consistency of the data. The pilot study also helped the researcher ensure the trustworthiness of the findings in terms of the dependability of the research.

The Cronbach Alpha reliability method (internal consistency) was used to establish the reliability of the instrument for this study. The Rehabilitation Interventions for School Reintegration (RISR) was administered to 10% of the sample (32 participants), which included state comptrollers of correctional services, teachers, and parents of children with intellectual disabilities. The instrument was administered and retrieved within seven days. The responses were coded and analyzed using SPSS (Statistical Package for Social Sciences) with the Cronbach Alpha reliability method. The analysis of RISR produced reliability coefficients ranging from 0.85 to 0.89, as shown in the tables below.

Table 3.1: Summary of the reliability coefficient of RISR

S/No	Variable	N	Cronbach's Alpha
1	Cognitive behavioural therapy	32	0.85
2	Family therapy	32	0.86
3	Correctional mental healthcare services	32	0.89
4	Correctional special education services	32	0.88
5	Vocational skills training	32	0.87
6	School reintegration	32	0.86

3.8. Ethical considerations

This research adhered to all principles of conducting social science research, including strict observance of ethical issues such as obtaining informed consent and ensuring anonymity and confidentiality in the (non) use of personal data. All necessary arrangements were made prior to data collection, including requesting ethical research clearance and a research permit from the Institute of Special Education Studies, Palacky University, Olomouc, Czech Republic. The researcher used the authorization from the Institute of Special Education Studies, Palacky University, Olomouc, Czech Republic, to obtain permission to conduct both the pilot study and the main study in the selected Prison Commands.

The purpose and objectives of the study were clarified to the respondents involved, and the relevance of the research was explained. This familiarization and briefing process raised awareness among respondents regarding the types of information needed, the rationale for asking for the information and its purpose, how they would be involved in the study, and the benefits of the study. This information facilitated the obtaining of informed consent, as participation in the study was voluntary. Respondents were informed about their right to participate in the study and their right to

withdraw at any point without giving an explanation to the researcher. Additionally, a consent form was given to all participants to indicate their willingness and informed consent to participate in the study. All participating correctional officers signed the consent form. During interviews, respondents were asked for their consent to the presence of a note-taker during each session.

Furthermore, to ensure confidentiality, pseudonyms were used during data analysis and interpretation to keep the respondents anonymous. Importantly, during data collection, the researcher treated all respondents fairly, sensitively, and with dignity, without prejudice, regardless of their differences.

3.9. Procedure for data collection

A letter of introduction from the Institute of Special Education Studies at Palacky University, Olomouc, Czech Republic, was obtained and provided to all the State Comptrollers of Prison Services in the South-South Geopolitical Zone of Nigeria. The researcher required the services of five research assistants, one from each state, to be involved in the study due to their wealth of experience and familiarity with the areas of interest in these states. A total of 350 copies of the questionnaire were administered. However, only 320 were retrieved, some with damage or missing information, resulting in a return rate of over 91%.

3.10. Method of data analysis

Descriptive statistics, including pie charts and percentage counts, were used to analyze the demographic data of the respondents, while inferential statistics, specifically Pearson Product-Moment Correlation, were used to determine the significant relationships in the stated research questions. Multiple Regression Analysis (MRA) was also employed to determine whether the independent variables predicted the dependent variable. Additionally, thematic analysis was used to analyze the qualitative data collected through interviews.

CHAPTER FOUR

RESULTS

This chapter presents results of the study. The results obtained were presented according to the research questions raised and null hypotheses formulated in chapter one. The results are presented in a descriptively using tables of frequencies and percentages, bar charts, Pearson Product Moment Correlation (PPMC) and Multiple Regression Analysis.

4.1 Demographic Data

Table 4.1: Distribution of the Respondents by type of respondents

Type of respondent	Frequency	Percentage
State Comptroller	6	1.88%
Parents	216	67.5%
Teachers	98	30.63%
Total	320	100%

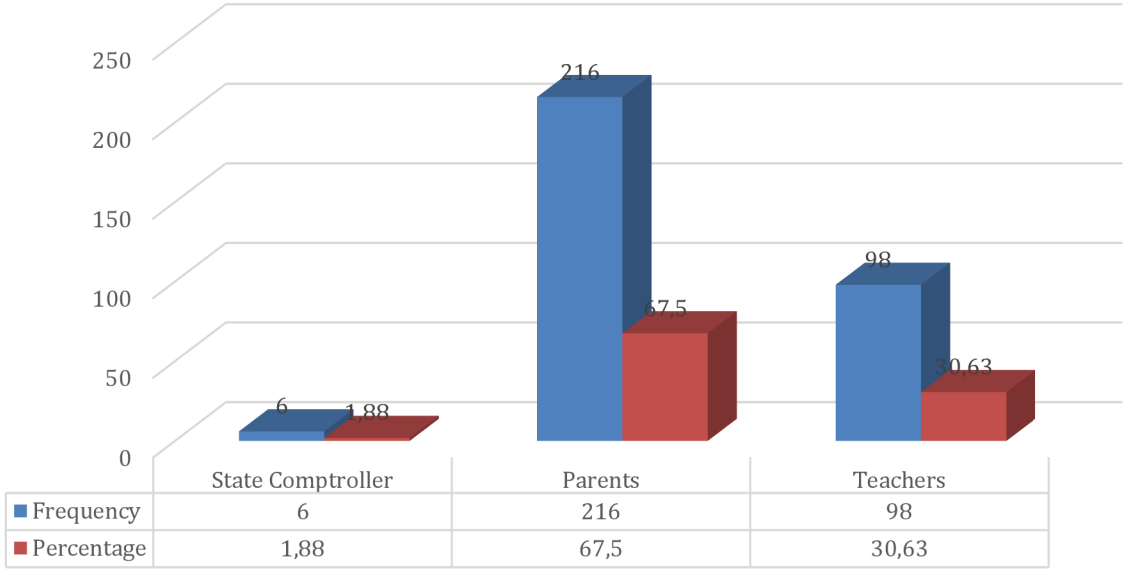

Fig.2: A bar chart showing summary of types of respondent

The Table 4.1 and Figure 2 above indicates that parents constituted the largest fraction of the study's sample. The second largest the teachers, while the state comptrollers constituted the least fraction of the study's sample.

Table 4.2: Distribution of respondents by State

State	Frequency	Percentage
Akwaibom State	54	16.88%
Bayelsa State	53	16.56%
Cross River State	54	16.88%
Delta State	53	16.56%
Edo State	53	16.56%
River State	53	16.56%
Total	320	100%

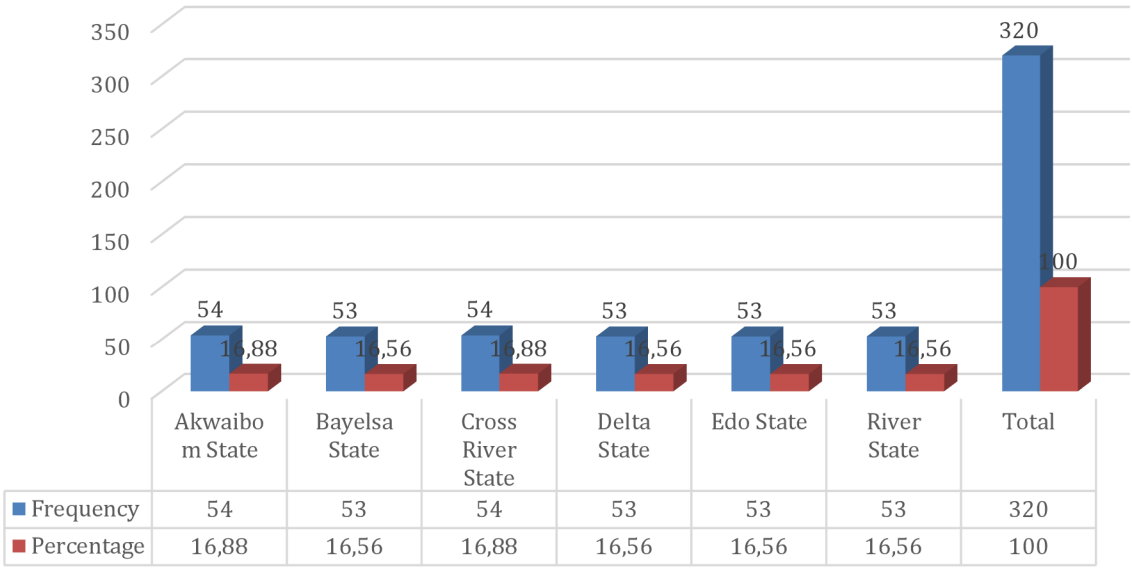

Fig.3: A bar chart showing summary of respondent by State

Fig.1: A bar chart showing summary of respondent by State

Table 4.2 and Figure 3 above reveal that there was one more respondent in Akwaibom and Cross River States than other states.

4.2.Answering research questions

Research question 1: What is the prevalence of school-to-prison students with comorbid intellectual disability and mental health disorders in the criminal justice system from year 2010 to 2021?

Table 4.3: Prevalence of inmates with mental health disorders by different categories of intellectual disability.

Mental health disorder/ID	Borderline (IQ >70)	Mild (IQ 69–50)	Moderate (IQ 49–35)	Severe (IQ 34–20)	Profound (IQ < 20)	Total
ADHD	52, 368	14,943	987	268	0	68,566 12%
Anxiety Disorder	44, 821	10,122	1,134	12	0	56,089 10%
Bipolar Affective Disorder	55,011	4,007	105	0	0	59,123 10%
Delusional disorder	32,866	4,693	1,502	894	1	39,956 7%
Depression	26,034	2045	292	0	5	28,376 5%
Epilepsy	799	2745	4998	9,333	20	17,895 3%
Behavioural Problems	51,643	19,001	5,326	1721	2	77,693 13%
Enuresis	8, 386	1002	1602	28	7	11,025 2%
Obsessive Compulsive Disorder	54,609	7031	308	38	0	61,986 11%
Schizophrenia	36, 691	6,905	779	407	0	44,782 8%
Substance Use Disorder	67,875	31,247	11,291	963	0	111,376 19%
Grand total						**576,867**

Source: Ministry of Interior (2022)

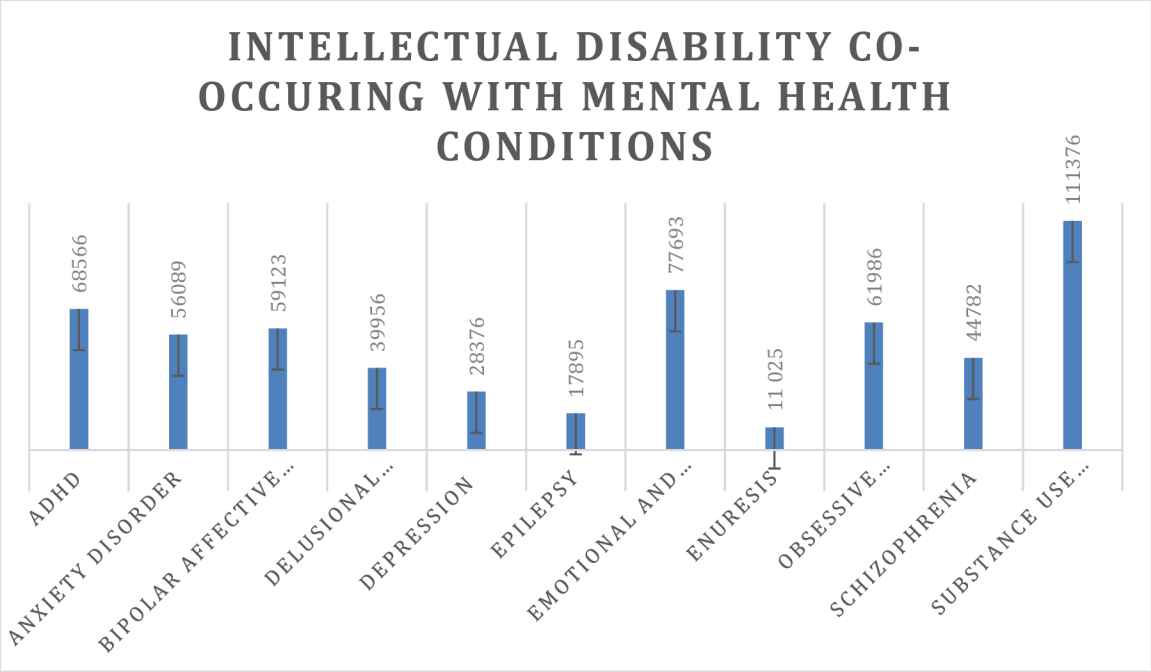

Figure 4: Prevalence dual diagnosis in the Nigerian criminal justice system

Table 4.3 and Figure 4 above show that a total of 576,867 school-to-prison inmates with dual diagnosis have been recorded in the Nigerian criminal justice system from 2010 to 2021. The data reveal that there are more cases of substance abuse as a comorbid condition, totaling 111,376 (19%), than any other comorbid condition. Behavioral problems are the second-highest recorded comorbid cases, with 77,693 (13%) in the Nigerian criminal justice system. Attention Deficit Hyperactivity Disorder (ADHD) is also a commonly recorded comorbid condition, with 12% of cases. Enuresis, with 11,025 cases (2%), is the least recorded comorbid condition among criminal offenders with intellectual disabilities in the Nigerian criminal justice system.

Equally important is the fact that the category of intellectual disability that most commonly interfaces with the criminal justice system is those in the borderline category (IQ >70). From the table above, a total of 431,103 (75%) of the inmates fall into the category of borderline intellectual disability. This category has fewer offenders with enuresis as a comorbid condition. Those in the category of mild intellectual disability number 103,741, which constitutes about 18%, while the profoundly intellectually disabled represent a percentage of 6.07x10-3. The table also shows that about 57% of the inmates with intellectual disabilities are epileptic.

Research question 2: What is the recidivism rate among school-to-prison ex-offenders by type of condition and crime committed between 2010 to 2021?

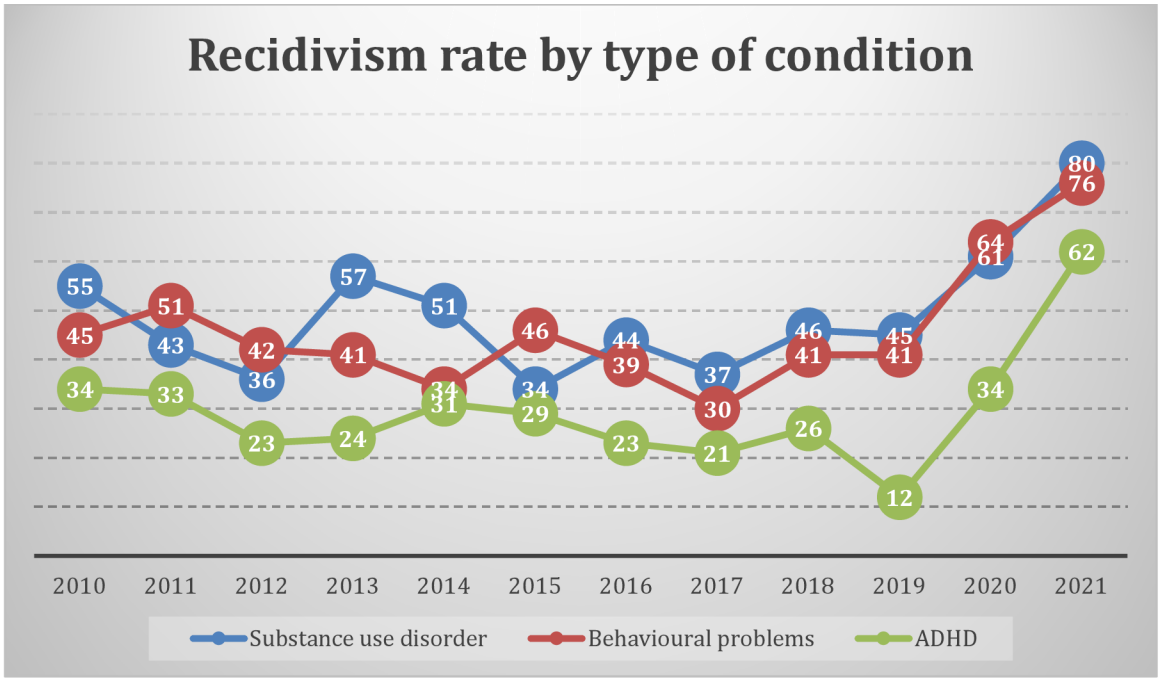

Figure 5: Recidivism rate among ex-offenders with intellectual deficit and mental health problems from 2010 to 2021

Source: Ministry of Interior (2022)

Figure 5 above shows that school-to-prison ex-offenders with substance use disorders and behavioral problems have the highest recidivism rates compared to any other categories of ex-offenders with dual diagnosis. The year-to-year variation in recidivism rates is observed to be due to the varying aftercare services in the community and family support services available to these offenders. The trending patterns in the three categories show that in 2010, the recidivism rate was high. However, it began to witness a gradual drop in 2011 and 2012, partly as a result of the renewed commitment to provide school reintegration support through community-based programs and services. The graph also reveals a steady increase in recidivism between 2020 and 2021. The surge in recidivism is partly due to the outbreak of the COVID-19 global pandemic, which wreaked havoc on global and national economies. The lockdown increased access to more alcohol and led to more offending behaviors that resulted in more rearrests.

Recidivism by type of crime committed

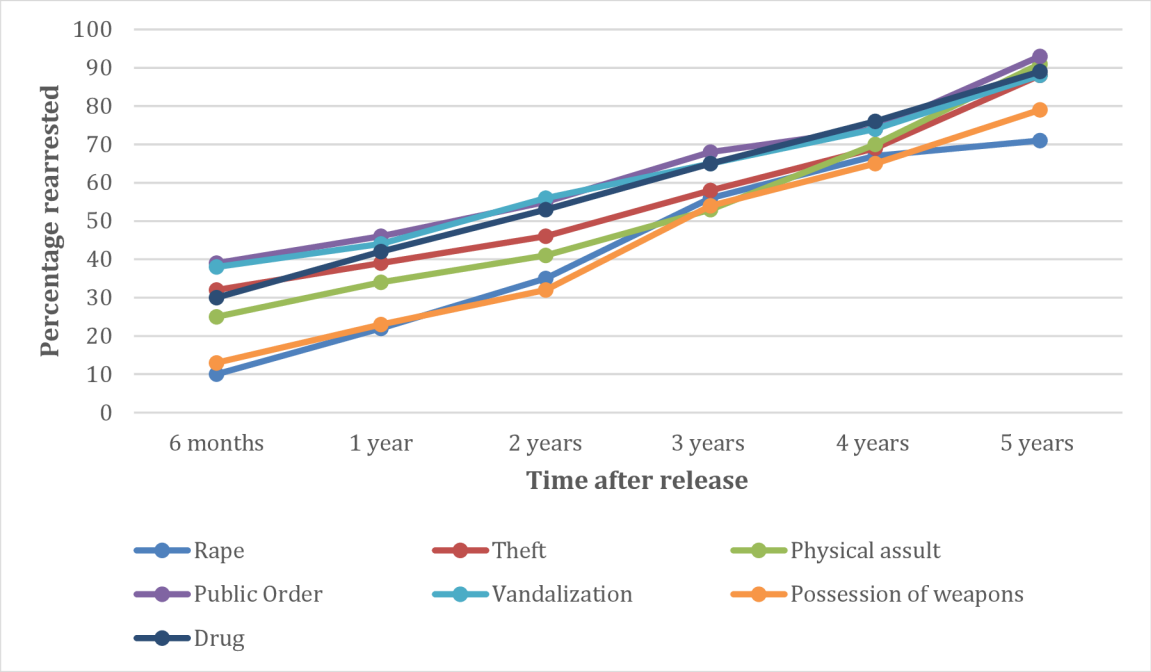

Figure 6: Proportion of released school-to-prison offenders rearrested, by offense type

Source: Ministry of Interior (2022)

Data in Figure 6 show that a greater proportion of released public order offenders were rearrested compared to offenders involved in vandalization of public property, theft, physical assault, possession of weapons, and rape. By the end of a five-year follow-up period, 93% of released public

order offenders were rearrested, compared to 91% of drug offenders, 89% of vandalization offenders, 88% of theft offenders, 79% of possession of weapons offenders, and 71% of rape offenders. The data show that the general pattern of recidivism continued regardless of the offenses for which released prisoners were incarcerated. Most released offenders, regardless of their offense, were likely to be rearrested within one year after being released. The recidivism pattern shows that the longer the years out of prison, the higher the recidivism rate among the offenders. Thus, many in this category of prisoners had become serial offenders.

Research 3: What rehabilitation interventions are available for inmates with conditions of dual diagnosis?

It was reported through interviews that there is a robust identification procedure for offenders suspected to have intellectual disabilities. A team of correctional experts, such as psychologists, psychiatrists, clinical psychologists, and other key officers, is responsible for the identification, categorization, and placement of inmates. However, these professionals are often unavailable to provide services, and as such, many inmates with dual diagnosis are not identified, referred, or placed appropriately. This identification procedure is done in partnership with the family of the offender.

It was also reported that there is a policy document for correctional service provision for inmates with disabilities. However, this document is not always implemented. It was reported that there are psychotherapy centers across all correctional centers, but some of these centers lack the capacity to perform their duties. Other services and programs include counseling services, religious programs, family therapy, and an aftercare unit. The aftercare unit is charged with the responsibility of providing supervisory services after release, especially for those who were equipped with skills. However, this is often only on paper and not in reality. Similarly, it was reported that there are no implementable rehabilitation interventions, noncustodial programs, or halfway home facilities for inmates who are to be diverted. It was also reported that there is no adapted psychotherapeutic treatment for inmates with dual diagnosis. Correctional special education programs are available but not functional, and there are no adapted vocational training programs for inmates with dual diagnosis.

4.3.Hypotheses testing

Hypothesis 1: There is no significant relationship between cognitive behavioral therapy, family therapy, mental healthcare services, and the post-release school reintegration of dually diagnosed school-to-prison inmates.

Table 4.4: Correlation between cognitive behavioral therapy, family therapy and mental healthcare services and post-release school reintegration of school-to-prison inmates.

Variables	Mean	Std. Deviation	N	Df	R	P	Remark
School reintegration	19.14	6.24	320	3	-	-	-
Cognitive behavioural therapy	12.01	5.22			.726*	.000	Sig.
Family therapy	10.10	5.03			.758*	.000	Sig.
Healthcare services	10.30	5.10			.505*	.000	Sig.

* Correlation Significant at 0.05 level

Table 4.4 indicates a statistically significant relationship between the independent variables (cognitive behavioral therapy, family therapy, and healthcare services) and the post-release school reintegration of dually diagnosed inmates. Specifically, the results reveal positive correlations between school reintegration and each of the interventions: cognitive behavioral therapy ($r = 0.726$, $p < 0.05$), family therapy ($r = 0.758$, $p < 0.05$), and mental healthcare services ($r = 0.505$, $p < 0.05$). The correlation coefficients (r-values) reflect the strength and direction of these relationships, with values closer to 1 indicating stronger positive associations. Given that the p-values for all variables are below the 0.05 threshold, the findings suggest that these relationships are statistically significant. As a result, the null hypothesis, which posited no relationship between the independent variables and post-release school reintegration, is rejected. This indicates that the implementation of cognitive behavioral therapy, family therapy, and healthcare services has a meaningful impact on the successful reintegration of dually diagnosed inmates into educational settings following their release.

Hypothesis 2: The combined effect of cognitive behavioral therapy, family therapy, and mental healthcare services does not significantly contribute to the post-release school reintegration of dually diagnosed school-to-prison inmates.

Table 4.5: Summary of multiple regression analysis showing the joint contribution of cognitive behavioral therapy, family therapy and healthcare services to post-release school reintegration among dually diagnosed school-to-prison inmates.

R		R Square		Adjusted R Square		Std. Error of the Estimate
0.875		0.803		0.800		1.421
SUMMARY REGRESSION ANOVA						
	Sum of Square	Df	Mean Square	F	P	Remark
Regression	3001.10	3	811.98	704.09	.000	Sig.
Residual	1451.34	317	233.12			
Total	4452.44	320				

Table 4.5 demonstrates a significant composite contribution of cognitive behavioral therapy, family therapy, and healthcare services to the post-release school reintegration of dually diagnosed school-to-prison inmates. The coefficient of multiple correlation (R) was found to be 0.875, and the multiple R-squared value was 0.803. This indicates that 80.3% (Adjusted $R^2 = 0.800$) of the variability in post-release school reintegration can be explained by the combined effect of the independent variables. The significance of this composite contribution was tested using an F-ratio, with degrees of freedom (df = 3/320), at a significance level of $p < 0.05$. The analysis of variance (ANOVA) for the regression analysis yielded an F-ratio of 704.09, which was statistically significant at the 0.05 level. Consequently, the null hypothesis, which proposed no significant relationship between the variables, was rejected. This finding suggests that the collective impact of cognitive behavioral therapy, family therapy, and healthcare services plays a substantial role in the successful school reintegration of dually diagnosed inmates following their release.

Hypothesis 3: The individual contributions of cognitive behavioral therapy, family therapy, and mental healthcare services do not significantly influence the post-release school reintegration of dually diagnosed school-to-prison inmates.

Table 4.6: Summary of multiple regression analysis showing relative contribution of cognitive behavioral therapy, family therapy and healthcare services to post-release school reintegration among dually diagnosed school-to-prison inmates.

Variable	Unstandardized Coefficients		Standardized Coefficients		
Model	(B)	Std. Error	Beta	T	Sig.
Constant	15.61	.600	-	23.45	.000
Cognitive behavioural therapy	.865	.045	.30	23.72	.000
Family therapy	.853	.052	.41	25.83	.000
Healthcare services	.835	.049	.29	23.21	.000

Table 4.6 reveals a significant contribution of the independent variables (cognitive behavioral therapy, family therapy, and healthcare services) to the post-release school reintegration of dually diagnosed inmates, as indicated by their respective beta weights. The correlation coefficients suggest that each of the independent variables individually has a meaningful impact on post-release school reintegration. In terms of relative contribution, family therapy emerged as the most significant predictor, with a standardized regression coefficient (β) of 0.41, t-value of 25.83, and p-value less than 0.05. This was followed by cognitive behavioral therapy ($\beta = 0.30$, $t = 23.72$, $p < 0.05$), while psychiatric healthcare services ($\beta = 0.29$, $t = 23.21$, $p < 0.05$) made the least contribution to the outcome. These results indicate that all three interventions have a significant relative contribution to the successful school reintegration of dually diagnosed inmates. As such, the null hypothesis, which suggested no significant contribution of the independent variables, is rejected.

Hypothesis 4: There is no significant relationship between prison special education services, vocational skills training, and the post-release school reintegration of dually diagnosed school-to-prison inmates.

Table 4.7: Correlation between prison special education services and vocational skills training and post-release school reintegration among dually diagnosed school-to-prison inmates.

Variables	Mean	Std. Deviation	N	Df	R	P	Remark
Post-release school reintegration	9.09	3.20	320	3	-	-	-
Prison special education services	9.81	3.31			.827*	.000	Sig.
Vocational skills training	10.01	3.53			.762*	.000	Sig.

* Correlation Significant at 0.05 level

Table 4.7 shows a significant relationship between the independent variables (prison special education services and vocational skills training) and the post-release school reintegration of dually diagnosed school-to-prison inmates. Specifically, the results reveal strong positive correlations between post-release school reintegration and both prison special education services ($r = 0.827$, $p < 0.05$) and vocational skills training ($r = 0.762$, $p < 0.05$). Since the p-values for both variables are less than the 0.05 significance threshold, it indicates that each of these independent variables significantly contributes to predicting successful post-release school reintegration. Consequently, the null hypothesis, which suggested no relationship between the variables, is rejected.

Hypothesis 5: The combined effect of prison special education services and vocational skills training does not significantly contribute to the post-release school reintegration of dually diagnosed school-to-prison inmates.

Table 4.8: Summary of multiple regression analysis showing the joint contribution of prison special education services and vocational training to post-release school reintegration of dually diagnosed school-to-prison inmates.

R		R Square		Adjusted R Square		Std. Error of the Estimate
0.820		0.819		0.807		1.333
SUMMARY REGRESSION ANOVA						
	Sum of Square	Df	Mean Square	F	P	Remark
Regression	1961.281	3	118.148	712.113	.000	Sig.
Residual	1231.134	317	77.182			
Total	3192.415	320				

Table 4.8 demonstrates a significant composite contribution of the independent variables (prison special education services and vocational training) to the post-release school reintegration of dually diagnosed school-to-prison inmates. The coefficient of multiple correlation (R) is 0.820, and the adjusted R-squared value is 0.727, indicating that 81% (Adjusted $R^2 = 0.807$) of the variability in post-release school reintegration can be explained by the combined effect of these independent variables. The significance of this composite contribution was assessed using an F-ratio with degrees of freedom (df = 3/320) at a significance level of $p < 0.05$. The analysis of variance (ANOVA) for the regression yielded an F-ratio of 712.113, which was statistically significant at the 0.05 level. Therefore, the null hypothesis, which posited no significant relationship between the variables, is rejected. This suggests that both prison special education services and vocational training play a substantial role in facilitating the school reintegration of dually diagnosed inmates following their release.

Hypothesis 6: The individual contributions of prison special education services and vocational skills training do not significantly influence the post-release school reintegration of dually diagnosed school-to-prison inmates.

Table 4.9: Summary of multiple regression analysis showing relative contribution of prison special education services and vocational training to post-release school reintegration among dually diagnosed school-to-prison inmates.

Variable	Unstandardized Coefficients		Standardized Coefficients		
Model	(B)	Std. Error	Beta	T	Sig.
Constant	14.001	.371	-	16.117	.000
Prison special education services	.715	.031	.503	20.414	.000
Vocational skills training	.782	.045	.497	20.234	.000

Table 4.9 reveals a significant contribution of the independent variables (prison special education services and vocational training) to the post-release school reintegration of dually diagnosed inmates, as indicated by their respective beta weights. This suggests that post-release school reintegration is significantly influenced by these two factors. The standardized regression coefficients show that prison special education services ($\beta = 0.503$, $t = 20.414$, $p < 0.05$) are the strongest predictor, followed by vocational skills training ($\beta = 0.487$, $t = 20.234$, $p < 0.05$). These findings imply that both prison special education services and vocational skills training have a significant relative contribution to predicting successful post-release school reintegration.

4.4. Discussion of findings

Prevalence of comorbid intellectual disability and mental health disorders among school-to-prison inmates from year 2010 to 2021

The findings of the current study reveal a high number of school-to-prison inmates with dual diagnosis who have had contact with the Nigerian criminal justice system. The findings of this study are in line with the report of Rouge and Matson (2014) and International Association for the Scientific Study of Intellectual Disabilities (2009) stated that about 50% of people who have an intellectual disability may have a coexisting mental health conditions. This mirrors findings in the United States, where approximately 50% of incarcerated individuals have co-occurring mental health and substance use disorders (Baillargeon et al., 2009). Similarly, a UK study highlighted a

high prevalence of dual diagnosis among young offenders, attributing it to systemic failures in early intervention and education (McCarthy et al., 2015). The combination of these conditions predisposes them to a range of criminal behaviours that cause unrest to the society. Thus, dually diagnosed people with intellectual disability are over-represented in the criminal justice system. They commit several crimes and end up in jails. Their vulnerability to crime is related to a reduced capacity to deal with complex social, cognitive and mental demands, difficulty in problem-solving ability. The current study shows that a total of 576,867 inmates with dual diagnosis were recorded in the Nigerian criminal justice system from 2010 to 2021. The current findings also show more cases of substance abuse comorbid condition 19% than any other comorbid conditions such as behavioural problems, ADHD, anxiety disorder, bipolar affective disorder, delusional disorder, depression, epilepsy, enuresis, obsessive compulsive disorder and schizophrenia. In the same vein, evidence suggests that some offenders in this population have greater exposure to substance use than others. Specifically, there is an association between the severity of ID and substance use spectrums, as problematic substance use increased with cognitive function (Sturmey, Reyer, Lee, & Robek, 2004). Reasons for greater substance use in people with borderline and mild ID may relate to an increased level of physical or financial independence, opportunities for access to substances, and exposure to prejudice through increased community participation (Rimmer et al., 1995).

The findings of the current study also reveal that the category of intellectual disability that commonly interface with the criminal justice system is those in Borderline (IQ >70) categories. About 75% of the inmates in are the category of borderline intellectual disability. The reason may partly because many in this category are considered to be without intellectual disability so are readily arrested, charge to court and jail without realizing that they have an intellectual and mental condition that require diversion. These findings are in congruent with the findings of Ojoe (2015) who reported that the most vulnerable category of inmates with intellectual disability in the criminal justice system is those with borderline intellectual disability because they are often adjudged to be without any obvious disability and deemed fit or trial. However, those with profound intellectual disability according to the findings of the currents study have the lowest representation in the criminal justice system. This is in line with Ojoe (2015) who reported that the underrepresentation of those with profound intellectual disability in the criminal justice system is as a result of the fact that except for murder cases and most heinous crimes that threaten life, such offenders are overlooked because of the profound intellectual deficits which is often accompanied by severe physical conditions. Secondly, most of them with profound intellectual disability have limited

mobility in the community unlike others. They have more restricted social contact in the community.

The recidivism rate among school-to-prison ex-offenders by type of condition and crime committed between 2010 and 2021

The findings of this study show that recidivism of school-to-prison inmates with dual diagnosis is higher among three categories of conditions: substance use disorder, behavioural problems and ADHD. This aligns with findings from Australia, where offenders with dual diagnoses exhibited higher rates of reoffending, especially when community reintegration support was lacking (Baldry et al., 2018). The findings of this study also corroborate the Handic and Sebic (2017) who reported that substance use disorder increases the vulnerability of persons with dual diagnosis to criminal and offending behvaiours. Persons with intellectual disability are more likely to engage in taking alcohols and other substances like cannabis, heroine, marijuana among others. The current study reveals that people intellectual disability with cooccurring substance use disorder recorded the highest cases in the criminal justice system. The high rate of intake of these illicit drugs may be related to multiple disadvantages from social and environmental determinants of health including lower educational levels, lower incomes, and higher unemployment, than people without disabilities (Iezzoni, 2011). Also, the deficits in adaptive behaviour predisposed them to substance abuse.

According to Kreb (2020), these people have significant limitations in cognitive functioning and adaptive behaviors that relate to everyday social and practical skills. The findings of the current study also reveal a pattern that indicates that the more substance they consume the more predisposed are become to criminal behaviors. It is also observed in the findings of the current study that those with behaviour problems were the second highest ranked offenders in with dual diagnosis. Of course, behaviour problems can also originate from excessive intake of illicit drugs. Thus, there tend to be a correlation in the representations of these two categories in the criminal justice system. Corroborating these findings, Slayter (2006) reported around 87% of people with ID live in the community, an improvement over institutionalization, but such integration may increase their exposure opportunities to licit and illicit substances and ensuing criminal offenses. The findings of the current study reported a surge in recidivism in 2020 and 2021. This could partly be explained from the perspective that the outbreak of Covid-19 global pandemic increased the intake of substances as a coping strategy. Also, the lockdown increased access to more alcohol and more offending behaviours that led to more rearrests.

Similarly, the current findings show greater proportion of released public order offenders rearrested than vandalization, theft, physical assault, possession of weapons, rape offenders and drug. The

findings indicate a general pattern of recidivism increase regardless of the offenses for which released prisoners were incarcerated. The high recidivism rate could be as a result of lack of diversion services and programmes that target quality reintegration into the community. These findings agree with the findings of Liop and Asander (2018) who reported higher rearrests in the control group than in the experimental group exposed to diverse programmes that focused on quality school reintegration after release.

The findings of the current study reported that by the end of five-year follow-up period, 93% of released public order offenders were rearrested, compared to 91% of public order offenders, 89% of drug offenders, 88% of vandalization offenders, 86% of theft offenders, 79% of possession of weapons offenders, and 71% of rape offenders. This suggests a vicious circle of waiting to reoffend and re-arrest. This suggest no evidence of substance related treatment of forensic psychotherapies to the equip their capacity to make informed decisions. The findings may also suggest that almost the same set offenders have been completing the circle of reoffending and re-arresting from 2010 to 2021. The findings suggest the need for psychotherapies. These findings are in line with the findings of Orim and Orim (2018) which corroborated that the management of forensic clients with ID in rehabilitation centres in Nigeria has remained a major challenge. Orim and Orim (2018) recommended that psychological therapies have been shown to be beneficial, and programs designed for use in general population have been adapted for use in offenders who have an ID. It is important that these offenders are identified at the earliest stages to establish preventative programs suitable to addressing the needs of such inmates. With respect to the type of treatment program deemed appropriate for intellectually disabled offenders, the type of offence and the characteristics of the offender are taken into consideration. In the current study, recidivism pattern shows that the longer the years of being out of prison the higher the recidivism of the offenders. Thus, many of this category of prisoner had become serial offenders. Follow-up programmes in the community are key ensuring that the purpose of removing them from the community to a correctional centre is accomplished. Correctional centre are rehabilitative institutions that has to fulfil its obligation especial for inmates with dual diagnosis.

The rehabilitation interventions are available for inmates with conditions of dual diagnosis

Several questions were raised by the research to the respondents to provide a clear understanding of diversion programmes and services available for inmates with conditions of dual diagnosis. One of the questions that was raised is:

What identification measures and practices are available for inmates with intellectual disability and associated mental health conditions?

Identification of offenders suspected to intellectual disability is done by professionals such as psychologists, psychiatry doctors and counselling therapists. This procedure is conducted in a working relationship with family of the offender. However, the significant limitation identified is that experts in intellectual disability are always not part of the identification team. According to Mr A, *as soon as an offender is admitted and suspected to have intellectual disability, we call for expert examination and screening to identify the disability and the severity of the disability. However, most of the time, other disabilities or mental health condition may be overshadowed by the intellectual disability which may lead to wrong categorization and placement.*

In examining the identification measures and practices for inmates with intellectual disability and associated mental health conditions, Mr. A's response highlights both the systematic approaches in place and the inherent challenges. The analysis is structured around two main themes: Identification Procedures for Intellectual Disability and Challenges in Accurate Identification and Placement. However, the lack of functional diversion programs in Nigeria echoes challenges reported in South Africa, where diversion initiatives often lack resources and are inconsistently implemented (Dissel, 2008). In contrast, Canada has implemented successful diversion programs focusing on mental health courts, leading to lower incarceration rates for dual-diagnosed individuals (Wilson et al., 2011).

Identification Procedures for Intellectual Disability

Mr. A detailed the protocol followed when an offender is suspected of having an intellectual disability. He explained, "As soon as an offender is admitted and suspected to have intellectual disability, we call for expert examination and screening to identify the disability and the severity of the disability." This practice underscores the reliance on professional evaluations to confirm suspicions and ascertain the extent of the intellectual disability. The emphasis on expert involvement reflects an understanding of the necessity for precise and informed diagnosis to guide appropriate interventions.

The process begins at the point of admission, where initial suspicions are raised based on preliminary observations or historical information. Following this, specialized assessments are conducted by qualified professionals to validate the presence of intellectual disabilities. The significance of this procedure lies in its potential to tailor rehabilitation programs and support

services to the specific needs of the inmate, thereby enhancing the effectiveness of the correctional system's response to intellectual disabilities.

Challenges in Accurate Identification and Placement

Despite the structured approach to identifying intellectual disabilities, Mr. A acknowledged significant challenges. He stated, "most of the time, other disabilities or mental health conditions may be overshadowed by the intellectual disability which may lead to wrong categorization and placement." This theme highlights the complexities and potential pitfalls in the diagnostic process.

The overshadowing of other conditions refers to the phenomenon where the presence of an intellectual disability can mask or draw attention away from additional disabilities or mental health issues. This overshadowing effect can result in inaccurate assessments, where the primary focus on intellectual disability leads to the neglect of co-occurring conditions. The consequences of such oversights are profound, often resulting in miscategorization and improper placement of inmates within the correctional system.

Incorrect categorization and placement can have several detrimental effects. Inmates may be placed in environments that do not cater to their specific needs, potentially exacerbating their conditions and hindering their rehabilitation. For instance, an inmate with both an intellectual disability and a severe mental health condition might not receive the necessary mental health support if only the intellectual disability is recognized. This misalignment underscores the need for more comprehensive assessment protocols that consider the possibility of multiple co-occurring conditions.

The thematic analysis of Mr. A's response reveals a dual-faceted view of the current practices in identifying and managing intellectual disabilities among inmates. While there is a clear protocol involving expert examinations and screenings to address intellectual disabilities, significant challenges remain in the comprehensive identification of all co-occurring conditions (Orim, et al 2022). The overshadowing of other disabilities and mental health conditions by intellectual disabilities often leads to misclassification and inadequate support, highlighting an area in need of improvement for better management and rehabilitation outcomes within the correctional system. This is in line with the report of Orim, Orim**,** David, James, James, Essien, Cecilia, Martin, Innocent, Sylvester, Nsagha, Raymond, and Felicia, (2022). This analysis emphasizes the importance of nuanced and holistic diagnostic approaches to ensure that all aspects of an inmate's health are addressed, facilitating more effective rehabilitation and support strategies.

Mr B stated that before now we did not know that mental health disorders could cooccur with intellectual disability. Thus, our attention was only focused on identifying intellectual disability. We even thought that the mental health symptomatology in intellectual disability such as anxiety, high and low moods swings, depression among other were characteristics of intellectual disability. However, we discovered that no intervention could work because another hidden variable was interfering with our interventions. Most of the time we just institutionalized them since releasing them into the community would lead to more havoc because they wouldn't stop engaging in criminal offence. In fact, for many of them, the treatment they receive here is a motivation to commit more crimes so that they may be rearrested.

Mr. B's response provides additional insights into the historical and current challenges in identifying and managing inmates with intellectual disabilities and co-occurring mental health disorders. The thematic analysis of Mr. B's response can be categorized into three primary themes: Historical Lack of Awareness, Misinterpretation of Symptoms, and Consequences of Inadequate Interventions.

Historical Lack of Awareness

Mr. B's response highlights a significant theme regarding the historical lack of awareness about the co-occurrence of mental health disorders with intellectual disability. He stated, *"Before now we did not know that mental health disorders could co-occur with intellectual disability."* This lack of knowledge led to a narrow focus solely on identifying intellectual disabilities, overlooking the possibility of other underlying mental health issues. This theme is crucial as it reflects the initial limitations in the diagnostic and treatment approaches within the correctional system. The acknowledgment of this gap in awareness underscores the importance of continued education and training for correctional staff and healthcare professionals to ensure comprehensive assessments of inmates.

Misinterpretation of Symptoms

A prominent theme in Mr. B's response is the misinterpretation of mental health symptoms as characteristics of intellectual disability. He noted, *"We even thought that the mental health symptomatology in intellectual disability such as anxiety, high and low mood swings, depression among others were characteristics of intellectual disability."* This misinterpretation led to a significant oversight in identifying co-occurring mental health disorders. By attributing symptoms such as anxiety and depression solely to intellectual disability, the correctional system failed to recognize and address the full spectrum of an inmate's mental health needs. This theme highlights

the necessity for more precise diagnostic criteria and training to differentiate between intellectual disability and co-occurring mental health disorders.

Consequences of Inadequate Interventions

The third theme, consequences of inadequate interventions, emerges from Mr. B's observations on the impact of misdiagnosis and lack of appropriate treatment. He revealed, *"We discovered that no intervention could work because another hidden variable was interfering with our interventions."* This statement underscores the ineffectiveness of interventions that do not address the full scope of an inmate's mental health issues. Mr. B further explained that inmates were often institutionalized as a default response: *"Most of the time we just institutionalized them since releasing them into the community would lead to more havoc because they wouldn't stop engaging in criminal offense."* This approach indicates a reactive rather than proactive strategy in managing inmates with co-occurring conditions, leading to a cycle of re-offense and re-incarceration.

Additionally, Mr. B noted a paradoxical outcome where the treatment provided within the institution became a motivation for some inmates to commit more crimes: *"For many of them, the treatment they receive here is a motivation to commit more crimes so that they may be rearrested."* This reflects the inadequacy of current interventions in addressing the root causes of criminal behavior and the need for more effective, individualized treatment plans.

The thematic analysis of Mr. B's response highlights critical issues in the identification and management of intellectual disability and co-occurring mental health disorders among inmates. The historical lack of awareness and the misinterpretation of symptoms led to ineffective interventions and a cycle of institutionalization and re-offense. These findings align with the report given by Orim and Orim (2018). These findings emphasize the need for comprehensive and accurate diagnostic practices, better training for staff, and tailored interventions that address the multifaceted needs of inmates with intellectual disabilities and associated mental health conditions.

The failure to recognize such psychopathology often stems more from the assessor's perception of the client's cognitive disability than from the difficulty inherent in sorting out multiple disabilities (Orim, et al, 2022). Psychologists in this study are referred to as school assessors with the primary and professional responsibility of assessing children with disability, inclusive of ID. Most often, they attribute all forms of behaviour difficulties to the person's (ID) special need condition and fail to consider that some behaviours may be a symptom of mental illness. Multiple studies consistently

support the view that overshadowing is a common school assessors' bias occurring during assessing children with ID and mental illness.

It was reported through interview that there is a robust identification procedure for offenders suspected to have intellectual disability. *Mrs D in her remark stated that we have a team of correctional experts such as psychologists, psychiatry doctors, clinical psychologists and other key officers are responsibility for the identification, categorization and placement of inmates. But we have consistently identified that these professionals are most of the times not available to provide services and as such many inmates with dual diagnosis are not identified, referred or placed appropriately. This identification procedure we often try to engaging with the family of the offender. Offenders arrested with dual diagnosis often come with communication issues and most of the times, there are no family members to give informed assessment inputs to facilitate the assessment process.* Mrs. D's response provides valuable insights into the identification procedures for inmates with intellectual disabilities and co-occurring mental health conditions (dual diagnosis). Her remarks reveal both the strengths and limitations of the current system. The thematic analysis of her response can be categorized into three primary themes: Structured Identification Framework, Resource Constraints and Professional Availability, and Challenges in Family Involvement and Communication.

Structured Identification Framework

Mrs. D begins by highlighting the structured and multi-disciplinary nature of the identification procedures for inmates suspected of having intellectual disabilities. She states, *"We have a team of correctional experts such as psychologists, psychiatry doctors, clinical psychologists, and other key officers responsible for the identification, categorization, and placement of inmates."* This reflects a well-defined framework designed to ensure that inmates receive appropriate assessment and placement based on their specific needs.

The emphasis on a team-based approach underscores the importance of a collaborative effort in the identification process. It recognizes the diverse expertise required to accurately diagnose and categorize inmates with intellectual disabilities and associated mental health conditions (Okwudire, & Orim, 2016). The presence of various professionals—psychologists, psychiatrists, and clinical psychologists—within the identification team is intended to provide a holistic assessment that considers multiple aspects of an inmate's mental health.

Resource Constraints and Professional Availability

Despite the structured identification framework, Mrs. D identifies a significant challenge: the frequent unavailability of the required professionals. She notes, *"But we have consistently identified that these professionals are most of the times not available to provide services and as such many inmates with dual diagnosis are not identified, referred, or placed appropriately."* This theme reveals a critical gap between the intended identification procedures and their actual implementation.

The findings of Orim and Assam (2022) resonate with the current findings that the lack of available professionals hinders the effective execution of the identification process, leading to missed diagnosis and improper placement of inmates. This shortfall can have severe consequences, as inmates with dual diagnosis may not receive the specialized care and support they need, potentially exacerbating their conditions and complicating their rehabilitation. The theme of resource constraints and professional availability reflects systemic issues within the correctional facility, where the demand for specialized services often outstrips the available supply. This discrepancy highlights the need for improved resource allocation, recruitment, and retention strategies to ensure that the identification procedure can be fully implemented as designed.

Challenges in Family Involvement and Communication

A third theme in Mrs. D's response is the challenge of involving family members in the identification process, particularly for offenders with dual diagnosis who may have communication issues. She states, *"This identification procedure we often try to engage with the family of the offender. Offenders arrested with dual diagnosis often come with communication issues, and most of the time, there are no family members to give informed assessment inputs to facilitate the assessment process."*

This theme points to the difficulties faced in gathering accurate and comprehensive information about the inmate's condition. Family members can provide crucial background information that aids in the assessment, but their absence or inability to contribute effectively complicates the process. For inmates with communication challenges, the lack of family input can result in incomplete or inaccurate assessments, leading to potential misdiagnosis or inadequate placement. The absence of family support also underscores the isolation that many inmates experience, particularly those with dual diagnosis. It highlights the need for alternative methods of obtaining comprehensive assessments, such as improving communication strategies within the correctional facility or developing more robust external support systems.

The thematic analysis of Mrs. D's response reveals a well-structured identification framework within the correctional facility, designed to address the needs of inmates with intellectual disabilities and co-occurring mental health conditions. However, significant challenges impede the effectiveness of this framework. The unavailability of key professionals often results in missed diagnosis and improper placement, while the absence of family involvement complicates the assessment process, particularly for inmates with communication issues. These findings emphasize the importance of addressing resource constraints, improving professional availability, and finding alternative ways to engage with inmates' backgrounds to ensure accurate identification and effective rehabilitation strategies. The analysis also suggests that systemic improvements are necessary to fully realize the potential of the existing identification procedures.

It was equally reported that there is a policy document for correctional service provision for inmates with disabilities. However, this document is not always implemented. It was also reported that there is psychotherapy center across all the correctional centers but some of the centers lack capacity to perform these duties.

According to Mrs M in one of the centers in one State in her words *the policy document for correctional programmes and services are robust but the issue is we lack adequate expertise and funding for the development and implementation of those programmes. Of course, we cannot meet their correctional needs as inmates with dual diagnosis. However, we conduct initial screenings and employ the services of psychologists and other experts such psychiatry doctors and professionals in special education who understand the social, intellectual and adaptive needs of these inmates. Of course, we have a robust identification procedure and it ends there. So, the identification of such offenders is just for record purposes. We are really incapacitated in terms of meeting their correctional needs. Most of the times, we just house in the facility for a length of time and release them back into the community. But be sure they would be back in few months if not weeks. The condition they are confined to in the facility even makes them offend the more.*

Mrs. M's response sheds light on the practical challenges of implementing policies designed to support inmates with intellectual disabilities and co-occurring mental health conditions (dual diagnosis) within correctional facilities. The thematic analysis of her response reveals three main themes: Gaps in Policy Implementation, Lack of Adequate Expertise and Funding, and Cycle of Recidivism and Institutionalization. To strengthen the analysis, empirical support from past studies is incorporated to provide context and validation.

Gaps in Policy Implementation

Mrs. M begins by acknowledging the existence of a robust policy document for correctional programs and services tailored for inmates with disabilities. However, she notes a significant disconnect between the policy and its practical implementation: *"The policy document for correctional programs and services are robust but the issue is we lack adequate expertise and funding for the development and implementation of those programs."* This theme highlights the discrepancy between the theoretical framework provided by the policy and the on-ground realities in correctional centers.

The gap between policy and implementation is a common issue in correctional settings. According to Maruschak et al. (2016), despite the existence of policies aimed at providing mental health services to inmates, many correctional facilities struggle with implementation due to resource constraints and lack of specialized staff. This situation is mirrored in Mrs. M's account, where the lack of adequate expertise and funding undermines the potential effectiveness of the existing policy framework.

Lack of Adequate Expertise and Funding

A major theme in Mrs. M's response is the inadequacy of expertise and funding, which hinders the proper development and implementation of correctional programs for inmates with dual diagnosis. She stated, *"We lack adequate expertise and funding for the development and implementation of those programs... We are really incapacitated in terms of meeting their correctional needs."* This theme reflects systemic issues within the correctional system that prevent the effective treatment and rehabilitation of inmates with dual diagnosis.

The shortage of expertise and funding is a critical barrier to providing adequate care for inmates with complex needs. A study by Fazel and Baillargeon (2011) underscores that many correctional facilities lack sufficient mental health professionals, such as psychologists and psychiatrists, which limits their capacity to deliver necessary services. Furthermore, inadequate funding exacerbates these challenges by restricting access to training, resources, and specialized programs that could address the unique needs of inmates with intellectual disabilities and mental health conditions.

Mrs. M also mentioned that while initial screenings are conducted, and experts such as psychologists and psychiatrists are sometimes employed, these efforts are often insufficient to meet the comprehensive needs of inmates with dual diagnosis. The situation is compounded by the fact that these screenings are primarily for record purposes, as stated, *"Of course, we have a robust identification procedure and it ends there. So, the identification of such offenders is just for record*

purposes." This points to a system where the identification of disabilities and mental health issues does not lead to substantive intervention, further highlighting the inadequacy of resources.

Cycle of Recidivism and Institutionalization

The third theme in Mrs. M's response revolves around the cycle of recidivism and institutionalization that inmates with dual diagnosis often experience. She expressed this as, *"Most of the times, we just house them in the facility for a length of time and release them back into the community. But be sure they would be back in few months if not weeks. The condition they are confined to in the facility even makes them offend the more."* This theme captures the repetitive cycle where inmates are released without proper rehabilitation, only to return to the correctional system due to re-offense.

Research by Baillargeon et al. (2009) supports Mrs. M's observations, indicating that inmates with mental health conditions, particularly those with co-occurring disorders, have higher rates of recidivism. The lack of adequate mental health care and rehabilitation services in correctional facilities contributes to this cycle. Inmates are often released without having their underlying issues addressed, leading to continued criminal behavior and subsequent re-incarceration.

The reference to the facility conditions exacerbating the likelihood of re-offense aligns with studies showing that the stress and lack of proper care in correctional environments can worsen mental health conditions, leading to a higher risk of recidivism (Kupers, 2017). This cycle of recidivism underscores the urgent need for more effective intervention strategies that go beyond mere identification and housing, addressing the root causes of criminal behavior among inmates with dual diagnosis.

The thematic analysis of Mrs. M's response reveals critical challenges in the implementation of policies aimed at supporting inmates with dual diagnosis. The existence of robust policy frameworks is undermined by the lack of adequate expertise and funding, leading to ineffective or incomplete interventions. As a result, inmates with dual diagnosis often experience a cycle of recidivism and institutionalization, exacerbated by the inadequate conditions within correctional facilities. Empirical support from previous studies highlights that these issues are not unique to Mrs. M's context but are widespread across correctional systems. The analysis suggests that without addressing the systemic barriers of expertise and funding, and without developing comprehensive

rehabilitation programs, the cycle of recidivism among inmates with dual diagnosis will likely continue.

Generally speaking, from the findings of the current study, those who are put into prison in Nigeria are confined in a congested and dirty environment, with insufficient provision of food, inadequate hygiene, and lacking in basic amenities and correctional programmes. Such impact also logically extends to employment disadvantages since such people may lack the adequate employment skills (social skills and job skills) and can find it extremely difficult to secure employment with any form of prison record. When dually diagnosed individuals are released from prisons and jails, they frequently are sent back into the community without any employment and behaviour support and no medications. Many have no housing to return to, and because they have a criminal record they face an uphill battle finding steady employment. Many individuals are released without post-release support programs and services that ensure non-recidivism among them. These issues support the need for justice initiatives that enable the diversion of these offenders from the prison system and that enable the underlying causes of offending to be more effectively addressed. There is currently no provision in the Nigeria prison service to screen for intellectual disability and associated mental disorders so as to provide appropriate correctional services that guarantee quality reintegration into the community upon release (Amnesty International Researchers. (2017).

The current findings have demonstrated despite the large number of incarcerated dually diagnosed youth who need diversion programmes and services, they typically do not receive these services in correctional facilities, and upon release. From the data obtained in the current study, about 98% of these inmates are likely to re-offend and be re-incarcerated. This is solely because there are no diversion programmes such as behaviour management, life skills training, and vocational skills training programmes required to equip them with the abilities to put in proper perspective cause-effects of their offences, develop life skills and acquired relevant job skills that promote their quality reintegration into the community upon release from prison. These offenders are considered misfits in the society. There is need to change this injustice to reflect the human rights standards. There needs to be adequate supports in place to prepare these special offenders to cope and manage these difficulties before reintegrating into their community to help reduce the likelihood of recidivism.

Mr A.C reported that other services and programmes include counselling services, religious programs, family therapy, aftercare unit. In our facility aftercare unit is charged with the responsibility of providing supervisory services after release especially for those who were equipped with skills. However, this is most of the time on paper only but not in reality. There is no

implementable diversion programme, no noncustodial programmes and no halfway home facilities for inmates who are to be diverted. Equally is the fact that there is not adapted psychotherapeutic treatment for inmates with dual diagnosis. Correctional special education programme is available but not functional and no adapted vocational training programmes for inmates with dual diagnosis. All we offer here is to just limit their freedom of movement so that have less opportunity to go and course more havocs in the community. So, we briefly confine them in the facility and then release thereafter to continue to reoffend and get rearrested.

Mr. A.C's response reveals critical gaps in the rehabilitation and reintegration services available to inmates with dual diagnosis within the correctional system. The thematic analysis of his response can be categorized into three primary themes: Inadequate Post-Release Support and Recidivism, Lack of Adapted Treatment and Rehabilitation Programs, and Deficiencies in Diversion and Noncustodial Programs. This analysis is further supported by empirical studies that highlight similar issues in other correctional settings.

Inadequate Post-Release Support and Recidivism

Mr. A.C emphasizes the inadequacy of post-release support services, which are crucial for preventing recidivism among inmates with dual diagnosis. He mentions, *"In our facility, the aftercare unit is charged with the responsibility of providing supervisory services after release, especially for those who were equipped with skills. However, this is most of the time on paper only but not in reality."* This theme reflects a significant gap between the intended purpose of aftercare services and their actual implementation.

The lack of effective post-release supervision and support increases the likelihood of recidivism, as inmates often return to their communities without the necessary skills or resources to manage their conditions or reintegrate successfully. This issue is corroborated by empirical studies, such as those by Mallik-Kane and Visher (2018), who found that effective reentry programs significantly reduce the risk of recidivism, particularly when they include tailored services that address the specific needs of inmates with mental health issues and other disabilities. The disconnect between policy and practice in aftercare services also highlights the broader systemic issue of underfunding and inadequate resource allocation within the correctional system, which has been identified as a barrier to successful reentry and reduced recidivism in several studies (James & Glaze, 2016).

Lack of Adapted Treatment and Rehabilitation Programs

Another major theme in Mr. A.C's response is the absence of adapted treatment and rehabilitation programs for inmates with dual diagnosis. He states, *"There is not adapted psychotherapeutic treatment for inmates with dual diagnosis. Correctional special education programme is available but not functional, and no adapted vocational training programmes for inmates with dual diagnosis."* This theme underscores the lack of specialized services that address the unique needs of inmates with both intellectual disabilities and mental health conditions.

The failure to provide adapted psychotherapeutic treatments and vocational training programs limits the rehabilitation prospects of these inmates, often resulting in their inability to acquire the skills and coping mechanisms necessary for successful reintegration. A study by Lamb et al. (2011) highlights the importance of specialized mental health services within correctional facilities, noting that inmates with dual diagnosis require tailored interventions to address their complex needs effectively. Without such adapted programs, these inmates are at a higher risk of reoffending due to the lack of proper rehabilitation while incarcerated. Furthermore, the non-functional correctional special education programs mentioned by Mr. A.C reflect a broader issue of inadequacy in correctional education for individuals with disabilities. According to a study by Vacca (2014), educational and vocational training programs within correctional facilities significantly reduce recidivism rates, particularly when they are adapted to meet the needs of inmates with learning disabilities or mental health issues. The absence of these programs in Mr. A.C's facility underscores a missed opportunity for rehabilitation and skill development, which could have a transformative impact on inmates' lives post-release.

Deficiencies in Diversion and Noncustodial Programs

Mr. A.C also points out the lack of diversion and noncustodial programs, as well as the absence of halfway home facilities, which are crucial for the reintegration of inmates with dual diagnosis. He notes, *"There is no implementable diversion programme, no noncustodial programmes, and no halfway home facilities for inmates who are to be diverted."* This theme highlights the deficiencies in alternative sentencing and rehabilitative approaches that could prevent incarceration and provide more supportive environments for inmates with dual diagnosis. Diversion programs, which redirect offenders away from the criminal justice system and into treatment or community-based services, have been shown to be effective in reducing recidivism among individuals with mental health issues (Skeem & Peterson, 2011). The absence of such programs in Mr. A.C's facility means that inmates with dual diagnosis are more likely to be confined in environments that exacerbate their conditions rather than address them.

The lack of noncustodial programs and halfway homes also limits the options for gradual reintegration, which is critical for inmates with complex needs. Studies have shown that halfway homes and similar transitional facilities provide a supportive environment that reduces the likelihood of reoffending by helping former inmates adjust to life outside prison (Latessa, 2012). The failure to implement such programs contributes to the cycle of recidivism that Mr. A.C describes, where inmates are briefly confined, released, and then rearrested.

Cycle of Recidivism and Institutionalization

A recurring theme in Mr. A.C's response is the cycle of recidivism and institutionalization experienced by inmates with dual diagnosis. He observes, *"All we offer here is to just limit their freedom of movement so that they have less opportunity to go and cause more havoc in the community... We briefly confine them in the facility and then release thereafter to continue to reoffend and get rearrested."* This theme reflects a punitive rather than rehabilitative approach, which fails to address the underlying issues contributing to criminal behavior.

This cycle is perpetuated by the inadequacies in the correctional system, including the lack of proper rehabilitation programs, post-release support, and alternative sentencing options. Research by Travis et al. (2014) supports this view, indicating that without comprehensive rehabilitation and reintegration services, inmates with mental health and intellectual disabilities are more likely to return to the criminal justice system. The analysis of Mr. A.C's response reveals significant challenges in the rehabilitation and reintegration of inmates with dual diagnosis. The inadequacy of post-release support, lack of adapted treatment and rehabilitation programs, and deficiencies in diversion and noncustodial programs contribute to a cycle of recidivism and institutionalization. Empirical studies corroborate these findings, highlighting the need for tailored interventions, effective reentry programs, and alternative sentencing approaches to reduce recidivism and support successful reintegration.

Correlation between the independent variables (cognitive behavioral therapy, family therapy and healthcare services) and post-release school reintegration school-to-prison inmates

The findings of the current study reveal that there is significant relationship between the independent variables (cognitive behavioral therapy, family therapy and healthcare services) and post-release school reintegration of dually diagnosed school-to-prison inmates. This meant that school reintegration has a positive correlation with cognitive behavioural therapy ($r=0.726$, $P < 0.05$), with family therapy ($r=0.758$, $P < 0.05$) and healthcare services ($r=0.505$, $P < 0.05$), since P-value was lesser than 0.05 level of significance, therefore, there is significant relationship between

the independent variables and post-release school reintegration among dually diagnosed inmates. The findings of this study are congruent with the findings of Pearson, Lipton, Cleland, and Yee (2002) who conducted a meta-analysis of 69 research studies covering both behavioral (e.g., contingency contracting, token economy) and cognitive behavioural programs. They found that the cognitive-behavioral programs were more effective in reducing recidivism than the behavioral ones, with a mean recidivism reduction for treated groups of about 30%. The study highlights the significant impact of family therapy and cognitive behavioral therapy (CBT) on reintegration. These findings resonate with research in the United States, where family-centered interventions have shown efficacy in reducing substance abuse and criminal behavior among juvenile offenders (Henggeler et al., 2009). Similarly, CBT has been recognized globally as a gold standard in offender rehabilitation programs.

It is worthy of note that the similarity of findings is regardless of the difference in climes. The high correlation coefficient of the current study ($r=0.726$, $P < 0.05$) shows that cognitive behavioural therapy could reduce recidivism in offenders with dual diagnosis. However, it is also important to note that Pearson et al study was a meta-analysis of experimental studies unlike the current study that relied on the opinions of experts and parents. Experimental study would have provided a more valid findings on the effectiveness of cognitive behavioural therapy on school reintegration among inmates with dual diagnosis.

Similarly, a meta-analysis by Wilson, Bouffard, and MacKenzie (2015) examined 20 studies of group-oriented cognitive behavioral programs for offenders and found that CBT was very effective for reducing their criminal behavior. In their analysis, representative CBT programs showed recidivism reductions of 20-30% compared to control groups. Although these meta-analyses provide strong indications of the effectiveness of cognitive behavioral treatment for offenders, they encompassed considerable diversity within the range of offender types, outcome variables, quality of study design, and (especially in Pearson et al., 2002) variations in what was counted as a cognitive-behavioral treatment. This means that the effectiveness of CBT on school reintegration of these offenders could be dependent on the availability of expertise in the administration of the therapy. Another question that might be raised is how does diversity interfere with the result of the treatment? Critical challenges present themselves in the use of CBT in treating offenders with dual diagnosis. Some of the concerns may include adaptation or translation of the instrument not only to the language level of these mostly illiterate offenders but also match their intellectual capacity and their mental health condition. Ability to adapt or develop and instrument that can address these issues is as important as the whole process. This might be quite challenging in the context of the

current study where there is limited expertise both in the development of a local instrument and the adaptation of the foreign instrument.

Factors such as expertise and resources related to treatment administration and implementation might influence the effects of CBT. The duration of CBT treatment in correctional settings, for instance, varies from weeks to years and may involve many meetings per week especially for inmates with dual diagnosis. The fidelity of the implementation to the curriculum specifications may also be important along with the degree of expertise possessed by the personnel providing the treatment. To what extent is the Nigerian correction centres prepared for such robust administration of therapies for such inmates who face a myriad of discrimination and social stigma in the society?

Equally, the findings of the current study also reveal that there is a significant contribution of the independent variables to the dependent variable, expressed as beta weights. The correlation coefficient of the relative contribution of cognitive behavioral therapy, family therapy and healthcare services to post-release school reintegration among dually diagnosed inmates is significant. This corroborates with the findings of Orim et al (2018) which reported that cognitive behavioral therapy and systemic therapy are effective therapeutic packages for curbing forensic and offending behaviors in clients with ID in Nigerian rehabilitation centers.

The current findings show that cognitive behavioral therapy, family therapy and healthcare services for dually diagnosed individual has a significant contribution to post-release school reintegration. Using the standardized regression coefficient to determine the relative contribution of the independent variables, family therapy ($\beta = 0.851$, $t=25.83$, $p<0.05$) indicates most potent contributor to the prediction, followed by cognitive behavioral therapy skills ($\beta = 0.756$ $t=23.72$, $p<0.05$) and psychiatric healthcare services ($\beta = 0.712$, $t=23.21$, $p<0.05$) has the least contribution to post-release school reintegration. It implies that there is a significant relative contribution of the independent variables (cognitive behavioral therapy, family therapy and healthcare services) to the dependent variable (post-release school reintegration among dually diagnosed inmates).

Family has a key role to play in the socialization and school reintegration of inmates with dual diagnosis. Family therapy equips the family of offender with the needed physical and mental resources they need to support these offenders upon release from correctional centres. The current study findings show family therapy ($\beta = 0.851$, $t=25.83$, $p<0.05$) makes a significant contribution to quality school reintegration among these offenders. This aligns with Barron (2012) who showed that family therapy was effective in reducing substance abuse, promote quality school reintegration, reduce recidivism among these ex-offenders. Substance use puts returning prisoners at risk for a number of adverse outcomes. The possession of illegal drugs alone puts individuals at risk for arrest, parole violation, and reincarceration. It is an established fact the family therapy empowers the

family to reinforce the training given to the offenders while they were still in custody. The show of love, support and care by the family can keep such ex-offenders from engaging in some criminal activities. Research as demonstrated that engagement in criminal activities is partly a function of lack of love, care and home in the home. If these elements are provided there is likelihood that it may lead to reduction in criminal and offending behaviours among them.

Family therapy provides parents training. In family therapy parents can be taught to positively change their children's behavior. Social skills training assumes that juveniles resort to delinquent tasks because they lack the skills to gain desired rewards through appropriate channels (Tarolla et al., 2012). Parent and/or social skills training might include psychoeducation (e.g., on effective discipline), prosocial behavior modeling, or instruction in negotiation. Thus, family holds key role in the reduction of recidivism rate among offenders with dual diagnosis.

The findings of the current study also reveal that mental healthcare services ($\beta = 0.712$, $t=23.21$, $p<0.05$) has significant relative contribution to post-release school reintegration. Psychotropic medication is frequently administered to people with intellectual disability with mental health and/or behavioural problems, instead of other non-pharmacological interventions. Antipsychotics continue to be widely used by people with intellectual disability and mental and behavioural health problems, especially those in institutionalised settings.

The findings of the current study also reveal that there is a significant relationship between the independent variables (prison special education services and vocational skills training) and post-release school reintegration among dually diagnosed inmates. These findings are in line with the findings of Odun (2012) that reported who reported that correctional special education is reduces recidivism among offenders with dual diagnosis. From the findings of the current study suggest that the level of a person's ability in social skills directly relates to his social growth and is demonstrated in his/her socially acceptable Offenders without disability may acquire social skills effortlessly but those with intellectual disability are required to be taught systematically through context-based or community-based instruction. They are taught how to greet, answer greetings, make requests, express feelings and act in various social contexts. This adaptation to their environment limits the extent to which the engage in criminal behaviours. These correctional special education programmes are also in form of positive behaviour support to apply behavioral principles in the community in order to reduce problem behaviors and build appropriate behaviors that result in durable change and a rich lifestyle. Additionally, instruction in conflict resolution benefits students as they interact in a workplace and community.

The findings of the current study also show that post-release school reintegration has a correlation with prison special education services ($r=0.627$, $P < 0.05$) and with vocational skills training ($r=0.762$, $P < 0.05$), since P-value is less than 0.05 level of significance. This shows that each of the independent variables can help predict the occurrences of post-release school reintegration among dually diagnosed inmates. This corroborates the findings of Bayim (2018) who reported that the effectiveness of the vocational training programs came at a positive level and to a high degree with a mean of (3.81). The participation of prison inmates in vocational skills acquisition programmes for self –reliance and sustainable economic growth is one of the key objectives of correctional rehabilitation of inmates with dual diagnosis.

The findings of this study demonstrate a significant relationship between correctional special education services, vocational skills training, and the post-release school reintegration of dually diagnosed inmates. The results indicate that both special education services and vocational training play a crucial role in facilitating successful reintegration, thus reducing the likelihood of recidivism.

The Role of Correctional Special Education Services

The significant positive correlation between prison special education services and post-release school reintegration ($r=0.627$, $P < 0.05$) is consistent with empirical literature. Davis et al. (2013) emphasized that inmates who participated in educational programs were less likely to recidivate, with a 43% lower odds of returning to prison compared to those who did not receive such education. This aligns with the current findings, suggesting that special education services significantly enhance the prospects of reintegration for dually diagnosed inmates by addressing their unique educational needs, which are often unmet before incarceration.

Moreover, special education within the correctional system is essential for building foundational literacy and numeracy skills, as highlighted by Tett et al. (2012) and Rangel & Torrijo (2019), who reported high levels of illiteracy among prisoners globally. By improving these basic skills, special education programs help inmates build the confidence and competence necessary to pursue further education or vocational training, thereby increasing their chances of successful reintegration into educational settings post-release. Vandala and Bendall (2019) further support this by noting that special education in prisons not only transforms lives by boosting self-esteem and confidence but also equips inmates with valuable skills necessary for leading law-abiding and productive lives upon release.

The Impact of Vocational Skills Training

Vocational skills training also showed a strong correlation with post-release school reintegration ($r=0.762$, $P < 0.05$), reflecting its critical role in preparing inmates for life after incarceration. The significant impact of vocational training is supported by findings from several studies. For instance, Tylor and Fuji (2020) found that participation in vocational skills acquisition programs significantly contributed to the self-reliance and sustainable economic growth of inmates in Sokoto State, Nigeria. This is corroborated by Abba (2016), who reported that vocational training enhanced the socio-economic well-being of inmates, thus aiding their reintegration into society. The Nigerian study underscores the importance of special education and vocational training in reducing recidivism, findings consistent with studies from Sweden and Germany, where educational programs for inmates improved post-release employment rates and reduced reoffending (Hawley et al., 2012).

Vocational training equips inmates with practical skills that are immediately applicable in the job market, which is crucial for maintaining employment post-release—a key factor in reducing recidivism (Bernstein & Houston, 2000). The ability to secure and retain employment is often hindered by low levels of education and vocational skills, as noted by Harlow (2003) and Holzer et al. (2014). Therefore, by providing inmates with vocational skills, correctional facilities not only improve their employability but also empower them to reintegrate into the community as productive members.

The composite contribution of both correctional special education services and vocational skills training to post-release school reintegration is substantial, with an adjusted R Square of 0.727, indicating that these factors together explain 81% of the variance in reintegration outcomes. This finding underscores the importance of a holistic approach to inmate rehabilitation, where both educational and vocational interventions are integrated to address the multifaceted needs of dually diagnosed inmates.

The relative contributions of special education services ($\beta = 0.503$) and vocational training ($\beta = 0.487$) further emphasize that while both components are essential, educational services slightly edge out vocational training in terms of their impact on reintegration outcomes. This suggests that while vocational training prepares inmates for immediate employment, educational services provide the foundational skills that support both further education and vocational pursuits.

These findings have significant implications for correctional policy and practice. They highlight the need for increased investment in both special education services and vocational training within correctional facilities, particularly for dually diagnosed inmates. Given the proven effectiveness of

these interventions in reducing recidivism and facilitating successful reintegration, correctional systems should prioritize the development and expansion of these programs. Furthermore, the integration of these services should be tailored to address the specific needs of dually diagnosed inmates, who may face additional challenges related to their mental health and educational deficits. Programs should be designed to be flexible and responsive, offering a continuum of care that extends beyond incarceration to support inmates as they transition back into society.

In conclusion, this study provides strong empirical support for the critical role of correctional special education services and vocational skills training in promoting the successful post-release school reintegration of dually diagnosed inmates. These findings reinforce the importance of comprehensive rehabilitation strategies that combine education and vocational training to address the complex needs of this vulnerable population. By investing in these programs, correctional systems can significantly enhance reintegration outcomes, reduce recidivism, and contribute to the broader goal of public safety.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Summary

This study explored cognitive behavioral therapy, family therapy, mental healthcare services and empowerment programmes as rehabilitation interventions for post-release school reintegration among inmates with conditions of dual diagnosis in Nigeria. To achieve this, the background of the study was given to reveal the trend, past and current efforts to reintegrate offenders with dual diagnosis back into the community. This was followed by a clear statement of the problem of the study was stated. The purpose of the study was stated followed by three research questions and six hypotheses which were formulated to give direction to the study. The significance of the study, and delimitation was stated and terms where operationally defined.

Relevant literatures were reviewed conceptually, theoretically and empirically to reveal what past researcher have done in the subject of post-release school reintegration of offenders with dual diagnosis. This helped in giving a broader view of policies and practices for the diversion offenders with dual diagnosis.

Survey design of correlational type was adopted for the study. The population of the study comprised correctional staff, teachers, parents, police officers, legal practitioners and psychiatric doctors. A total sample of 320 respondents was selected for the study. Three instruments developed and validated instruments for data collection. The research questions were answered using descriptive statistics of percentage and bar chart while the formulated hypotheses were tested using Pearson Product Moment Correlation Coefficient Analysis and Multiple Regression Analysis at 0.05 level of significance.

The results show that while over 40% of the inmates have concomitant intellectual disability and mental illness, they are no stated policies for identification, assessment and diversion of these offenders. As a result of this the recidivism rate is high as they released offenders lack the capacity to be productively reintegrated into the community. Thus, upon release, they commit more offenses and are rearrested to keep the vicious circle running. The result also show that while cognitive behavioural therapy, family therapy, healthcare services, prison special education services and vocational skills training have significant relationship with post-release school reintegration of inmates with dual diagnosis, family therapy makes a most potent contribution to post-release school reintegration, followed by cognitive behavioural therapy, healthcare services, prison special education services and finally vocational skill training in this order. It was also shown that when

taken together, family therapy, cognitive behavioural therapy, healthcare services, prison special education services and vocational skills training all predicted the quality post-release school reintegration of inmates with dual diagnosis.

5.2. Conclusion

In conclusion, this study illuminates the urgent need for comprehensive and effective interventions to address the complex needs of school-to-prison inmates with dual diagnosis in Nigeria. The findings reveal a striking prevalence of substance abuse and behavioral problems among these inmates, underscoring the critical role of targeted therapeutic approaches. The significant impact of cognitive behavioral therapy, family therapy, healthcare services, correctional special education and vocational skills training on post-release reintegration highlights the potential for these interventions to substantially improve outcomes. However, the challenges of inadequate implementation and lack of functional services point to a pressing need for systemic reforms. By strengthening identification procedures, enhancing the functionality of correctional programs, and investing in specialized education and vocational training, there is a significant opportunity to reduce recidivism and facilitate successful reintegration. Addressing these gaps will be crucial in transforming the criminal justice system's approach to managing dually diagnosed inmates, ultimately fostering a more inclusive and rehabilitative environment that promotes long-term positive change.

5.3. Recommendations

Based on the findings of the study, the following recommendations were made:

i. Schools, the criminal justice system and other law enforcement agencies should implement a robust and consistent, multidisciplinary identification procedures for accurately assessing and categorizing inmates with dual diagnosis.
ii. Prison laws and policies should be reviewed to accommodate the rehabilitation needs of offenders with dual diagnosis.
iii. The government should provide ongoing training and a triangular transdisciplinary partnership among correctional staff, mental health professions and special educators to effectively manage and support inmates with dual diagnosis.
iv. Government should increase funding and resources for mental healthcare services within correctional facilities and ensure continuity of care post-release.

v. Government should invest in improved data collection and research on dual diagnosis within the criminal justice system to understand better trends, outcomes and effective interventions.

vi. The government should create and implement robust intervention programmes that focus on diverting inmates with dual diagnosis from incarceration into community-based treatment and support services.

5.4. Educational and policy implication of the study

The findings of the study have significant educational and policy implications, particularly in the context of addressing the school-to-prison pipeline for inmates with dual diagnosis in Nigeria:

Educational Implications:

1. Enhanced Special Education Programs: The study highlights the need for robust, functional special education services within correctional facilities. Educators and policymakers must advocate for the development and implementation of specialized curricula tailored to the unique needs of inmates with intellectual disabilities. Also, training and professional development for educators working in correctional facilities should be prioritized to equip them with the skills necessary to effectively teach and support students with dual diagnosis.

2. Integration of Cognitive Behavioral Therapy (CBT) and Family Therapy in Educational Settings: The significant impact of CBT and family therapy on post-release school reintegration underscores the need to integrate these therapies into the educational programs offered in correctional facilities. This integration can help address behavioral issues and improve the overall educational outcomes for inmates.

3. Focus on Vocational Training: The strong correlation between vocational skills training and successful reintegration suggests that educational programs should include practical, skill-based training that prepares inmates for employment post-release. These programs should be tailored to the abilities and interests of inmates, particularly those with intellectual disabilities.

4. Early Identification and Intervention: The study's findings indicate a need for early identification of students at risk of falling into the school-to-prison pipeline, particularly those with intellectual disabilities and comorbid conditions. Schools should implement screening processes and provide targeted interventions that can prevent these students from becoming involved in the criminal justice system.

Policy Implications:

1. Reforming Correctional Policies: The study reveals gaps in the implementation of policies designed to support inmates with disabilities. Policymakers must revise existing policies to ensure they are effectively enforced, with clear guidelines for the identification, placement, and rehabilitation of inmates with dual diagnosis. There is a need for the development of comprehensive correctional policies that prioritize rehabilitation over punishment, particularly for inmates with intellectual disabilities.

2. Development of Non-Custodial Programs: Given the findings on the high rates of recidivism, particularly among those with behavioral and substance use disorders, there is a clear need for the implementation of non-custodial programs. Policies should encourage the use of community-based alternatives to incarceration, such as halfway homes, community service, and probation, especially for offenders with intellectual disabilities.

3. Investment in Rehabilitation Services: The inadequacies in rehabilitation services highlighted in the study suggest a need for increased investment in mental health services, vocational training, and educational programs within correctional facilities. Policymakers should allocate sufficient resources to ensure these services are available and accessible to all inmates who need them. There should also be an emphasis on the development of adapted psychotherapeutic treatments specifically designed for inmates with dual diagnosis.

4. Strengthening Aftercare Services: The findings indicate that the effectiveness of aftercare services is crucial for reducing recidivism. Policies should mandate the establishment of robust aftercare programs that provide continuous support to released inmates, including access to mental health care, educational opportunities, and employment assistance.

5. Collaboration Between Correctional Facilities and Educational Institutions: To facilitate the successful reintegration of inmates into schools, there should be a policy framework that encourages collaboration between correctional facilities and educational institutions. This collaboration can ensure that inmates receive consistent and continuous education and support before and after their release.

The findings of this study call for a comprehensive approach that integrates education, mental health, and correctional policies to effectively address the needs of inmates with dual diagnosis. By enhancing educational programs, reforming correctional policies, and investing in rehabilitation and aftercare services, Nigeria can better support these individuals and reduce the school-to-prison pipeline.

5.5. Contribution to knowledge

This study significantly contributes to the existing body of knowledge by providing a comprehensive analysis of the intersection between intellectual disabilities, comorbid conditions, and the criminal justice system in Nigeria. By quantifying the prevalence of dual diagnosis among inmates and highlighting the specific challenges they face, the study fills a critical gap in the literature regarding the school-to-prison pipeline in developing countries. The detailed examination of comorbid conditions, such as substance abuse and behavioral problems, and their impact on recidivism provides new insights into the complexities of rehabilitating individuals with intellectual disabilities in a correctional setting.

Furthermore, the study offers empirical evidence on the effectiveness of various rehabilitation interventions, including cognitive behavioral therapy, family therapy, correctional special education services and vocational skills training, in facilitating post-release school reintegration. By demonstrating the significant contributions of these interventions to reducing recidivism and improving educational outcomes, the study advances our understanding of what works in supporting dually diagnosed individuals within the criminal justice system. The statistical analysis and findings on the relative impact of different interventions offer a data-driven basis for developing targeted rehabilitation programs.

Lastly, the study's policy implications highlight the need for systemic reforms in correctional education and rehabilitation services. By identifying gaps in the implementation of existing policies and the lack of resources in correctional facilities, the study contributes to the discourse on how to better support inmates with dual diagnosis. This research not only informs policy but also encourages further exploration into the development of more effective, culturally appropriate interventions that can be scaled across similar contexts globally.

5.6. Limitations of the study

This study has several limitations, particularly in its methodology. The sample size is not sufficiently large or representative of the broader population of inmates with dual diagnosis in Nigeria, which could limit the generalizability of the findings. The reliance on data from the Nigerian criminal justice system, which may be prone to inaccuracies and inconsistencies due to underreporting or misclassification, further constrains the study. Additionally, the qualitative data gathered from respondents, such as correctional staff, might be subject to response bias, potentially

skewing the insights and limiting the study's ability to accurately capture the full scope of the issues at hand.

The study did not take into consideration some other extraneous variables such as knowledge and experience of the respondents about dual diagnosis, psychotherapies which may have significant effect on the outcome of the study. The design of the study was another limitation of the study. Treatment intervention using psychotherapies and other programmes and services understudied would have provided a more objective outcome to determine their effects on post-release school reintegration. Also, the scope of this study was limited to only South-south Geopolitical Zone of Nigeria.

Regardless of these limitations, the study is still significant because it provides critical insights into the challenges faced by dually diagnosed inmates in Nigeria and offers valuable guidance for developing targeted interventions and policies that could improve rehabilitation and reintegration outcomes.

5.7. Suggestions for further study

- The scope of the study needs to be expanded beyond South-south Geopolitical Zone, Nigeria to give a broader and more generalized picture of diversion policies and practices for inmates with dual diagnosis.
- Conduct longitudinal studies to track the long-term outcomes of individuals who have participated in psychotherapies, mental healthcare, and empowerment programs. This would provide insights into the sustainability of interventions and their impact on reducing recidivism rates and promoting successful reintegration into society.
- Conduct policy analyses to assess the existing legal and policy frameworks related to intellectual disabilities, mental health, and incarceration in Nigeria. Identify gaps, inconsistencies, and areas for improvement to better support the needs of inmates with intellectual disabilities and mental health conditions.

By addressing these areas in further studies, researchers can continue to advance knowledge and contribute to the development of evidence-based interventions and policies to support the needs of individuals with intellectual disabilities and mental health conditions in Nigeria's criminal justice system.

References

Abba, M. (2016). Rehabilitation of Prison inmates through Vocational Skills Acquisition Programmes as perceived by prison officials in North –West States, Nigeria: Unpublished PhD Thesis: University of Nigeria, Nsukka, Enugu State, Nigeria.

Abba, M. and Mbagwu, F. O. (2016). Vocational Skills Training Needs of Prison inmates for Economic Growth in Katsina State, Nigeria. Paper presented at the 2016 National Conference of the Nigeria National Council for Adult Education (NNCAE) held at AlvanIkoko College of Education, Owerri, Imo State, Nigeria.

Abba, M., and Sanda, M. U. (2015). The Effects of Well-planned Correctional Education Programme on the Rehabilitation of Prison inmates, in Nigeria: *Journal of Educational Foundations and Development*, Benin City: University of *Benin, Edo State, Nigeria. 1*(1),13 –23.

Abba, M.and Kodi, S. (2019). Vocational rehabilitation of militia extremist group in Nigeria. The study focused on the rehabilitation of Boko-haram prison inmates' through Technical and Vocational Training Skills Acquisition (TVTSA) programmes in North East, Nigeria. *Policing: A Journal of Policy and Practice, 1*(3): 111-119.

Adebayo, A. O., & Oyewole, O. (2021). Policy implications for improving services for individuals with intellectual disabilities in Nigeria. International Journal of Developmental Disabilities, 67(4), 345-356.

Adelaja, A. (2019). State of Nigerian prisons. Retrieved from http://234next. com/csp/cms/sites/Next/ Home/5250407-146/story.csp on September 6, 2018.

Adewole, O. A. (2012). Effect of Population on Economic development in Nigeria: A qualitative assessment. *International journal of physical and social science,2*(5), 1-14.

Adno, G. and Yveert, T. (2018). *Dementia praecox of the group of schizophrenias* (J. Zinkin, Trans.). New York: International University Press.

Adonis, D.B. and Ute, X. (2015). Winners need losers: The basis for school competition and hierarchies. In E.A. Brantlinger (Ed.), *Who benefits from special education? Remediating (fixing) other people's children.* Mahwah, NJ: Lawrence Erlbaum Associates.

Agbakwuru, C., and Godfrey, E. M. I. (2016). Incarceration and the Well-being of Prison Inmatesin Nigeria: European Centre for Research, Training and Development. UK(www.eajournals.org).

Agbor, Q. (2013). Randomized trial of behavioral activation, cognitive therapy, and antidepressant medication in the prevention of relapse and recurrence in major depression. *Journal of Consulting and Clinical Psychology, 76*(3*)*, 468–477.

Agnew, E. (2015). Preventing Substance Abuse." In M. Tonry and D.P. Farrington (eds.). *Building a Safer Society: Strategic Approaches to Crime Prevention, Vol. 19, Crime and Justice: A Review of Research.* Chicago, Ill.: University of Chicago Press, 343–427.

Aity, I. (2012). Applying the developmental perspec- tive in the psychiatric assessment and diagnosis of per-sons with intellectual disability: Part II—diagnosis. *Journal of Intellectual Disability Research, 49*, 9–12.

Akpunne, O. (2014). Access to Basic Needs as Correlate of Desire to Participate in Rehabilitation Programmes among Inmates of Nigerian Prisons. *Criminology, 38*(3), 30–40.

Alrund, G.Y. (2019). Empirical comparison of maximal voxel and non-isotropic adjusted cluster extent results in a voxel-based morphometry study of comorbid learning disability with schizophrenia. *Neuroimage, 28*, 544–552.

American Association on Intellectual and Developmental Disabilities. AAIDD; (2012). *Intellectual disability: Definition, classification, and systems of support* (11th ed.). Washington, DC: Author.

American Bar Association. (2021). Shutting down the school-to-prison pipeline. Retrieved from https://www.americanbar.org/groups/crsj/publications/human_rights_magazine_home/empowering-youth-at-risk/shutting-down-the-school-to-prison-pipeline/

American Civil Liberties Union (2019). Cops and no counselors: How the lack of school mental health staff is harming students. https://www.aclu.org/issues/juvenile-justice/schoolprison-pipeline/cops-and-no-counselors

American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders fifth edition.* Arlington: Author

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: APA.

American Psychiatric Association. American Psychiatric Association [APA]. (2002). *Diagnostic and Statistical Manual of Mental Disorders, Text-Revision.* Washington, DC: American Psychiatric Association.

American Youth Policy Forum and the Center on Educational Policy (2012). Perspectives of intellectual disability in Asia; epidemiology, policy and services for children and adults. *Current Opinion in Psychiatry, 22*, 462–468.

Amnesty International Researchers. (2017). Nigeria: Amnesty International delegates say prison conditions appalling. Retrieved on September 6, 2022 from http://www.amnesty.org/en/library/asset/AFR44/019/2007/en/ac0e7770-d370-11dda329-2f46302a 8cc6/afr440192007en.pdf

Anastasi, E. and Urbina, C.C. (2017). Psychiatric dis-orders and behaviour problems in people with intellectual disability. *Research in Developmental Disabilities, 29*, 316–332.

Anderson, K., Ritter, G., & Zamarro, G. (2017). *Understanding a vicious cycle: Do out-of-school suspensions impact student test scores?* Department of Education Reform, University of Arkansas

Andrews, E. and Bonta, C.N. (2014). *People Living withPsychotic Illness: An Australian study 1997-98 Anoverview*. Canberra: Commonwealth Department of Health and Aged Care.

Andrews, H.U. et al. (2010). The primary factors that characterize effective interventions with juvenile offenders: A metaanalytic overview. *Victims and Offenders, 4*, 124–47.

Anfara, V. A., Jr., Evans, K. R., & Lester, J. N. (2013). Restorative justice in education: What we know so far. *Middle School Journal*, *44*(5), 57-63.

Angell, M.J. et al., (2014). Reentry as a transient state between liberty and recommitment. In: Travis J and Visher C (eds) *Prison Reentry and Crime in America.* New York: Cambridge University Press, pp. 50–79.

Anyon, Y., et al. (2016). Restorative interventions and school discipline sanctions in alarge urban school district. *American Educational Research Journal*, *53*(6), 1663-1697.

Arshad, S., Winterhalder, R., Underwood, L., Kelesidi,K., Chaplin, E., Kravatriti, E., et al. (2011). Epilepsy and intellectual disability: Does epilepsy increase the likelihood of co-morbid psychopathology? *Research in Developmental Disabilities, 32*, 353–357.

Asand, E. and Nilson, B. (2019). Anxiety disorders inpeople with learning disabilities. *Advances in Psychiatric Treatment* 11: 355-61

Askew, E.G. (2016). Building recovery capital: The role of faith-based communities in the reintegration of formerly incarcerated drug offenders. *Journal of Drug Issues, 47*(3), 370-382.

Asokhia, E. and Osumah, P. (2013). Assessment of rehabilitation services in Nigerian Prisons in Edo State. *The Crime Psychology 2 (2) 9-20*

Asokhia, M.O., and Agbonluae, O.O. (2013). Assessment of Rehabilitation Services in Nigeria Prisons in Edo State, Nigeria: *American Journal of Contemporary Research,3*(1), 140-152.

Association of Intellectual Disability and Mental Disorders (2018). 22q11deletion syndrome in adults with schizophrenia. *American Journal of Medical Genetics, 81*, 328–337.

Atchem, L. (2014). Hiding behind high-stakes testing: Meritocracy, objectivity and inequality in U.S. education. *The International Education Journal: Comparative Perspectives, 12*(2), 7-19.

Atingo, S.V. (2013). 'Pfropfschizophrenie' revisited. Schizophrenia in people with mild learning disability. *The British Journal of Psychiatry, 173*, 145–153.

Austin, A. M. (2016). Remembering the inmates of Kaduna Prison. Daily Trust News Paper Report, April, 22. Retrieved August, 2015fromhttp://www.dailytrust.com.ng/daily/index.php/feature/52674-rememb...

Australian Bureau of Statistics (2017). *National Survey of Mental Health and Wellbeing: Summaryof Results. (Document 4326.0).* Canberra: ABS

Ayu, L.D. (2014). Social class and the hidden curriculum. *Journal of Education*, *62*(1), 67-92.

Babr, R. and Junta, N. (2011). Behaviour and psychiatric disorders of people with mental handicaps, living in the community. *Journal of Intellectual Disability Research, 36*, 349–357.

Badaga, P. and Cruz, P. (2015). *Breaking schools' rules: A statewide study of how school discipline relates to students' success and juvenile justice involvement*. Council of State Governments Justice Center; Public Research Policy Research Institute of Texas A & M University.

Baker, D. and Fread, T.I. (2016). Persons with intellectual disabilities in the criminal justice system. *International Journal of Offender Therapy and Comparative Criminology: 5(6), 723-733.*

Ballt, F.G. et al, 2009). The reliability and validity of general psychotic rating scales with people with mild and moderate intellectual disabilities: An empirical investigation. *Journal of IntellectualDisability Research, 7*, 490–500.

Bank,Y. et al (2019). Rethinking the Evaluation of Family Strengthening Strategies: Beyond Traditional Program Evaluation Models." The Evaluation Exchange X (2).

Barak, F.U. et al, (2015). Psychosis in mentally handicapped adults. In P. Snaith& P. E. James (Eds.), *Psychiatric illness and mental handicap*. London: Gaskell Press.

Barron (2012). Effect of family therapy on recidivism among ex-offenders with intellectual disability. *Journal of Marriage and Family* 68(4):1084-1104.

Bartol, R. and Bartol, N. (2011). *Criminological Theories*: *Introduction and Evaluation*. Los Angeles: Roxbury

Baumeister & Bacharach, 2020). Associations between childhood intelligence (IQ), adult morbidity and mortality. *Maturitas, 65*: 98–105.

Baumrind, E. (2011). Strengthening Families to Prevent Drug Use in Multiethnic Youth." In G. J. Botvin, S. P. Schinke, and M. A. Orlandi (eds.). *Drug Abuse Prevention with Multiethnic Youth.* Newbury Park, Calif.: Sage Publications, 253–92.

Bayim, E. (2018). Making the most of second chances: An evaluation of Minnesota's high-risk revocation reduction reentry program. *Journal of Experimental Criminology, 11*(2), 193–215.

Beccker, Z. et al (2015). The schizophrenia phenotype in 22q11 deletion syndrome. *The American Journal of Psychiatry, 160*, 1580–1586.

Beck, A.T. (2010). *Problem-solving therapy: A positive approach to clinical intervention* (3rd ed.). New York, NY: Springer.

Beck, A.T. (2011). Self-practice and self-reflection in cognitive behaviour therapy and training: What factors influence trainees' engagement and experience of benefit? *Behavioural and Cognitive Psychotherapy*, *42*, 48–63.

Beck, A.T. et al, (2011). Using our five senses to address safety behaviours during the exposure task. Paper presented at skill-building session: Using a case formulation approach to address safety behaviors in exposure therapy, American Psychological Association, Toronto, Canada.

Beeson, E. and Jones, B. (2015). Problem-solving therapy for depression: A meta-analysis. *Clinical Psychology Review*, *29*(4), 348–353.

Begun, G., Early, L. and Hodge, V. (2016). Making ends meet after prison. *Journal of Policy Analysis and Management*, *33*(2), 440-470.

Berger, G. (2013). Randomized trial of behavioral activation, cognitive therapy, and antidepressant medication in the acute treatment of adults with major depression. *Journal of Consulting and Clinical Psychology*, *74*(4), 658–670.

Bernstein, R. and Houston, B. (2000). Reentry and the ties that bind: An examination of social ties, employment, and recidivism. *Justice Quarterly, 28*(2), 382–410.

Bill, P.C. (2019). Practice Guidelines for the Assessment and Diagnosis of Mental Health Problems in Adults with Intellectual disability. Pavillion, Brighton.

Birch, F. and Ladd, F. (2012). Early Predictors of Male Delinquency: A Review." *Psychological Bulletin* 94(1):68–99.

Borthwick-Duffy, Y. (2017). Epidemiology, etiology and presentation of mental illness and behaviour disorders in persons with mental retardation. In: Dosen A, Day K, editors. *Treating mental illness and behaviour disorders in children and adults with mental retardation.* Washington: American Psychiatric Press.

Borzycki, G. and Baldry, V. (2013). Delinquent friends and delinquent behavior: Temporal and developmental patterns. In: Hawkins JD (ed.) *Delinquency and Crime: Current Theories.* Cambridge: Cambridge University Press, pp. 28–67.

Borzycki, G. and Makkai, B. (2017). Social capital and offender reintegration: Making probation desistance focused. In: Maruna S and Immarigeon R (eds) *After Crime and Punishment: Pathways to Offender Reintegration.* Cullompton, UK: Willan Publishing, pp. 57–82.

Bowen, U. (2010). *Strengthening America's Families: Exemplary Parenting and Family Strategies for Delinquency Prevention.* Washington, D.C.: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Bozick, L. et al. (2018). *Personal and social development for all.* London: David Fulton Publishers.

Bozick, Y.J. at al. (2018). Improved educational achievement as a path to desistance. *New Directions for Child and Adolescent Development*, 111–135.

Bratt, J. and Olson, F. (2017). Identifying symptoms of psychiatric disordersin people with autism and intellectual disability: An empirical conceptual analysis. *Mental Health Aspectsof Developmental Disabilities, 4*, 105–115.

Breakspear, D. (2022, March 1). Time to break the school-to-prison pipeline. Revolving Doors Agency. Retrieved from https://revolving-doors.org.uk/time-to-break-the-school-to-prison-pipeline/

Buoteng, I.O. (2019). Ambulance attendances resulting from self-harm after release from prison: A prospective data linkage study. *Social Psychiatry and Psychiatric Epidemiology*, 52, 1295–1305.

Burger, S. and Liwente, K.O. (2016). Community participation following cerebrovascular accident: Impact of the buffering model of social support. *American Journal of Occupational Therapy* 60: 129–135.

Bush, E., Glick, M. and Taymans, Y. (2019). *Exposure therapy for anxiety: Principles and practice.* New York, NY: The Guilford Press.

Carvalho, G. and Alexandre, C. (2023). The efficacy of CBT based interventions to sexual offenders with intellectual disability: A systematic review. *Journal of Consulting and Clinical Psychology, 86*(2), 38-48.

Chawki, U. et al (2015). The hunt for disability: The new eugenics and the normalization of school children. *Teachers College, 104*(4), 663-703.

Chesapeake Institute (2014). The Forensic Patient Population in New South Wales, *Current Issues in Criminal Justice, Volume 17 (1), 5-29.*

Chesterman, E. and Rutter, V. (2013). Psychosocial and physical factors predicting handicap following stroke. *Hong Kong Medical Journal* 13(5): 34-36.

Chikadzi, I. (2021). *Problems faced by teachers teaching the mentally retarded.* Unpublished Master's Thesis. Kenyatta University, Kenya.

Choksi, M. (2012). [Re]claiming "inclusive education" toward cohesion in educational reform: Disability studies unravels the myth of the normal child. *Teachers College Record, 113*(10), 2122-2154.

Cinata, F.I. and Zigh, Z. (2019). Psychiatric disorder in Asian adults with learning disabilities: Patterns of service use. *Journal of Intellectual Disability Research, 40*, 298–304.

Clare, C.F., Gudjonsson, D.B. and Harari, B.C. (2018). Mental illness in probation and parole populations: Results from a national survey. *Perspectives*, *28,* 32-39.

Clarke, E. and Boer, D. (1998). *The genetics of sleep disorder*. LocustValley, NY: J-J. Austin.

Clone, K. and DeHart, P. (2014). Offender reentry: correctional statistics, reintegration into community, and recidivism. Retrieved from http://www.fas.org/sgp/crs/misc/RL34287.pdf

Cobman, S.G. (2013). *Functional Family Therapy: Principles and Procedures.* Carmel, Calif.: Brooks/Cole.

Coffee, S. et al (2011). Prevalence of intellectual dis- ability: A meta-analysis of population-based studies. *Research in Developmental Disabilities, 32*, 419–436. Mercandante, M. T., Evans-Lacko, S., & Paula, C. S.(2009). Perspectives of intellectual disability in Latin America

countries: Epidemiology, policy and services for children and adults. *Current Opinion in Psychiatry, 22*, 469–474.

Colapinto, F. (2014). Effects of Parental Monitoring and Peer Deviance on Substance Use and Delinquency." *Journal of Marriage and Family* 68(4):1084-1104.

Colapinto, P.A. (2011). Can Violent Offenders Be Distinguished from Frequent Offenders? Prediction from Childhood to Adolescence." *Journal of Research in Crime and Delinquency* 33:206-31.

Colapinto, R.J. (2012). *Protective Factors for Populations Served by the Administration on Children, Youth, and Families, A Literature Review and Theoretical Framework: Executive Summary*. Washington, D.C.: U.S. Department of Health and Human Services, Administration on Children, Youth, and Families.

Collik, U.I. (2008). Schizophrenia with childhood onset: A phenomenological study of 38 cases. *Journal of the American Academy of Child and Adolescent Psychiatry, 31*, 968–976.

Comely, C.D. (2018). It Takes Two to Replicate: A Mediational Model for the Impact of Parents' Stress on Adolescent Adjustment." *Child Development* 66:80–97.

Comely, L. (2014). Assessing substance abuse in adults with mental retardation: A comparative study. *The British Journal of Psychiatry, 158*, 103–105.

Comer, G. (2019). Chromosome abnormali-ties, mental retardation and the search for genes in bipolar disorder and schizophrenia. *Neurotoxicity Research, 14*, 113–120.

Common, S.C. and Pulin, K. (2019). Treatment of schizophrenia. In A. Dosen & K. Day (Eds.), *Treating mental illness and behaviour disorders in children and adults with mental retardation*. Washington, DC: American Psychiatric Press.

Connolly, B. and Granfield, C. (2017). Vulnerability and marginalization of adult ex-offenders with disabilities in community and employment reintegration. *Journal of Applied Rehabilitation Counseling, 45*(4), 4-14.

Corbett, S. (2019). Clozapine treatment in a population of adults with mental retar- dation. *The Journal of Clinical Psychiatry, 61*, 22–25.

Cosin, T. (2019). Troubled Inside: Responding to the Mental Health Needs of Men in Prison, *Prison Reform Trust 3:23-28.*

Cotson, O. and Kertin, D. 2009). Studies in childhood psychoses: I. Diagnostic criteria and classification. *The British Journal of Psychiatry, 118*, 381–384.

Craft, O. et al (2013). *Disability Weights for Diseases in the Netherlands.* Rotterdam: Erasmus University.

Cravin, A.D. (2016). Mental retardation. *Definition, classification, and systems of support (9th ed.).* Washington DC: Crux Publications.

Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research.* Sage Publications.

Cuff, M. and Ultret, C. (2019). Adapting the curriculum for all. *Journal of Curriculum Studies, 2 (3) 158-168.*

Dagenais, P. and Haldeman, A.L. (2012). Exposure therapy and extinction: Clinical studies. In M. G. Craske, D. Hermans, & D. Vansteenwegen (Eds.), *Fear and learning: From basic science to clinical application*. Washington, DC: American Psychological Association.

Dallos, T. and Draper, C. (2015). Childhood Adversities and Adult Psychopathology in the WHO

World Mental Health Surveys." *The British Journal of Psychiatry* 197:378–85.
Dalott, R. (2012). The misdiagnosis of hallucinationsand delusions in persons with mental retardation: A neurodevelopmental perspective. *Seminars in ClinicalNeuropsychiatry, 1*, 122–133.

Dambazau, A.B. (2017). *Criminology and Criminal Justice (2nded.)*. Westerville: Glencoe / McGreaw Hill.
Daub, E.R. and Harman, B. (2011). *New perspectives in the definitions of intellectual disability.* New York: Mc Graw Hill.

Davis, L. M, Robert, B., and Jennifer, S. (2016). *Corrections-Based Vocational Training Programs: Crime solutions*: Santa Monica, National Institute of Justice (NIJ) Report.
Davis, L.M. et al (2014). *Exceptional learners: An introduction to special education* (11th ed.). Boston: Pearson.
Davis, L.M. et al. (2013). Gender differences in the impact of abuse and neglect victimization on adolescent offending behavior. *Journal of Family Violence*, *30*, 215–225.
Dayo, A. (2015). Heavy episodic drinking among adolescents: a test of hypotheses derived from control theory. *J. Alcohol Drug Education.* 50(1):35–56
Deb, W. (2017). What should community services provide for adults with psychosis and learning disabilities?: A comparison of the views of service users, carers and professionals. *Advances in Mental Health and Learning Disabilities, 3*, 22–27.

Deb, W. and Hunter, C. (2019). Psychiatric disturbance in mentally handicapped patients. *The British Journal of Psychiatry, 137*, 250–255.

Deb, W. et al, (2011). Behavioural disorganization as an indicator of psychosis in adults with intellectual disability and autism. *Mental Health Aspects of Developmental Disabilities, 10*, 37–46.

Delphins, H. (2019). Emotional processing of fear: Exposure to corrective information. *Psychological Bulletin*, *99*(1), 20–35.
Denkowski and Denkowski (2013). Does CBT facilitate emotional processing? *Behavioural and Cognitive Psychotherapy, 40(01), 19–37.*
Denney, E.M. et al., (2014). Assistance, support, and monitoring? the paradoxes of mentoring adults in the criminal justice system. *Journal of Social Policy, 43*(2), 373-390.

Dholic, P. and Sunerch, Q. (2019). Disproportionate representation of African American students in special education: Acknowledging the role of White privilege and racism. *Educational Researcher, 35*(6), 24-28.
Diamond, I.P. et al (2011). Multidimensional Family Therapy for Adolescent Drug Abuse: Results of a Randomized Clinical Trial." *American Journal of Drug and Alcohol Abuse* 27(4):611–88.

Dissel, A. (2008). Rehabilitation and reintegration in African prisons. *Journal of Offender Rehabilitation, 46(1-2), 25-35.*

Doit, R. and Gill, V. (2019). *Disability in Australia: Intellectual Disability*. (Bulletin 67). Canberra: AIHW.
Doner, U. (2023). Special education and the juvenile justice system. *Journal of Prison Education, 44: 31-45.*

Drake, E. and LaFrance, C. (2017). Exploring the experiences of ex-offender mentors. *Probation Journal, 60*(4), 400–414.

Drone, T. (2020). Antipsychotic drug side effects for persons with intellectual disability. *Research in Developmental Disabilities, 1570–1576.*

Duell, F.I. (2018). Presuming competence. *Equity & Excellent in Education, 39(2), 166-175.*

Dulcius, O. (2018). Psychotropic use among youths with intellectual and developmental disabilities. *BMC Public Health*, 17(1), 342.

Duwe, G. (2017). *The use and impact of correctional programming for inmates on pre-and post-release outcomes*. U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.

Dwirtich, T. (2018). The unintended, pernicious consequences of "staying the course" on the United States' No Child Left Behind policy. *International Journal of Education Policy & Leadership, 4*(6), 1-13.

Dykens, E. M. (2009). Intellectual disability. In B. J. Sadock, V. A. Sadock, & P. Ruiz (Eds.), *Comprehensive textbook of psychiatry* (9th ed., pp. 3444–3474). Philadelphia:

Earley, S.D. (2016). Schizophrenia in people with ID: The role of pregnancy and birth complications. *Journal of Intellectual Disability Research, 41*, 238–251.

Ebert, D.M. (2018). Validity of the substance abuse diagnosis of the psychiatric assessment schedule for adults with developmental disability (PAS-ADD). *The British Journal of Psychiatry, 168*, 359–367.

Edder, B. (2018). Psychosocial interventions for adults with intellectual disabilities. *Journal of Mental Health, 11*, 357–373.

Edert, F.B. (2020). A survey of clinical care for patients with schizophrenic disorders and learning disability. *Journal of Clinical Excellence, 3*, 125–131.

Edhert, T. (2019). Sociocultural correlates of disciplinary exclusion among students with emotional, behavioral, and learning disabilities in the SEELS national dataset. *Journal of Emotional and Behavioral Disorders*, *15*(33), 33-45.

Edson, G. and Galton, E.E. (2019). Validity of the substance abuse diagnosis of the psychopathology instrument for mentally retarded adults: A comparison of schizo- phrenic patients with and without mental retardation. *Research in Developmental Disabilities, 15*, 473–486.

Edson, U. (2019). A critique of the diagnostic criteria for psychiatric disorders for use with adults with learning disabilities/mental retardation (DC-LD) chapter on non-affective psychotic disorders. *Journal of Intellectual Disability Research, 47*(Suppl. 1), 16–26.

Edstong, I. (2018). Improving the public's understanding and response to mental disorders. *Australian psychologist* 42: 81-9

Eels, G. U. (2017). *Overcoming insomnia: A cognitive-behavioral therapy approach, Therapist guide* (2nd ed.). Oxford, England: Oxford University Press.

Eka, B. (2015). *Overcoming low self-esteem self-help course: A 3-part programme based on cognitive behavioural techniques. Part One.* London, England: Robinson.

El Fert, R.Y. (2018). *Mental Health inLearning Disabilities. A Reader.* Brighton, UK. Pavilion Publishing.

Eldert, E.G. (2021). Depression and intellectual disability. *Journal of Intellectual Disability Research, 44*, 529–543.

Erfert, Y. (2019). Intellectual disability and its relationship to autism spectrum disor- ders. *Research in Developmental Disabilities, 30*, 1107–1114.

Eseigbe, E. E., & Ofovwe, G. E. (2017). Prevalence of intellectual disabilities in Nigeria: A systematic review. Journal of Intellectual Disabilities, 21(3), 245-256.

Ethridge, G. et al., (2014). Ex-offenders in rural settings seeking employment. *Journal of Applied Rehabilitation Counseling, 45*(4), 56-63.

Eze, M. (2019). "Oil Exploration and Environmental Degradation in the South-South Geopolitical Zone of Nigeria." Environmental Science Journal, 30(1), 56-71.

Fabiyi, O. (2019). Juvenile correctional schools: Characteristics and approaches to curriculum. *Education and Treatment of Children*, *32*, 673–696.

Famseed, T. (2018). *Therapeutic exercises for children.* Sarasota, FL: Professional Resource Press.

Father, A and Ultisa, O. (2017). Predictors of admission to a high security hospital of people with intellectual disability with and without schizophrenia. *Journal of Intellectual Disability Research, 44*, 130–137.

Fazel, S., & Baillargeon, J. (2011). The Health of Prisoners. *The Lancet, 377(9769), 956-965.* https://doi.org/10.1016/S0140-6736(10)61053-7

Federal Ministry of Interior. (2016). *Nigerian Prisons Service:* Report: Abuja, Nigeria.

Feldman, I. and Wentzel, P. (2012). Effective of family therapy in addressing school adjustment issues by children with intellectual disability. *American Journal of Drug and Alcohol Abuse* 28(2):11–28.

Fey, E.G., Warren, R., Brady, B., Finestack, V.B., Bredin-Oja, C., Fairchild, TB., Sokol, B., and Yoder, G. (2016). States' eligibility criterion for mental retardation: An update, and consideration of part scores and unreliability of IQs. *Education and Training in Developmental Disabilities*, *43*(1), 123–131.

Ficher, U. (2016). Reducing recidivism rates through special education and training. *4th World Congress on Technical and Vocational Education and Training (WoCTVET)* (pp. 272 – 276). Malaysia: Elsevier Ltd.

Filar, O.P. (2018). A retrospective population-based data analyses of inpatient care use and medical expenditurein people with intellectual disability co-occurring schizophrenia. *Research in Developmental Disabilities, 32*, 1226–1231.

Filling, E.G. (2019). Who influences men to go to therapy? Reports from men attending psychological services. *International Journal for the Advancement of Counselling* 26: 271-83.

Filton, D. (2017). Christian privilege and the promotion of "secular" and not-so "secular" mainline Christianity in public schooling and in the larger society. *Equity & Excellence in Education, 39*(3), 195-210.

Foit, E. and Sadig, V. (2009). Sensory impairments, intellectual dis- ability and psychiatry. *Journal of Intellectual Disability Research, 45*, 467–483.

Fontaine, G. (2013). Case management helps prevent criminal justice recidivism for people with serious mental illness. *International Journal of Prisoner Health, 13*(3), 168-172.

Fox, D. (2002). Rehabilitation and treatment programs. In: Wilson JQ and Petersilia J (eds) *Crime and Public Policy*. Oxford: Oxford University Press, pp. 293–344.

Frazier, E.T. et al (2015). Mental health and substance abuse service engagement by men and women during community reentry following incarceration. *Administration and Policy in Mental Health and Mental Health Services Research, 43*(2), 207-218.

Friesen, O. (2015). *Guide for Implementing the Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offenders*. Washington, D.C.: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Funich, C.B. (2021). Diagnosis and pharmacotherapy of schizophrenia in the retarded. *PsychopharmacologyBulletin, 21*, 316–322.

Gargiulo, E. and Bouck, C. (2018). Key themes for future research and clinical practice. In E. Tsakanikos & J. McCarthy (Eds.), *Handbook of psychopathology in adults with developmental and intellectual disabili- ties: Research, policy and practice*. New York, NY: Springer Science.

Gatchel, I. and Rollings, L. (2018). *Scientific foundations of cognitive theory and therapy for depression.* New York, NY: Wiley.

Gendreau, T., Smith, H., and French, C. (2016). *Unraveling Juvenile Delinquency*. New York: Commonw. Fund

Gerchow (2015). Impact of Two Cognitive Behavioral Therapy Programs on Recidivism in Chronic Juvenile Offenders with intellectual disability. *The Journal of Primary Prevention, 55*(3), 125-139.

Gernich, R.T. (2017). Reducing mental illness stigmaand discrimination – everybody's business. *Medical Journal of Australia* 178: S47-8

Giles, M. (2016). *Guidelines for analyzing add health data*. Carolina Population Center, University of North Carolina at Chapel Hill. Retrieved September 1, 2019, from https://addhealth.cpc.unc.edu/documentation/user-guides/

Gillis, O. and Andrews, D. (2015). *Ending the school-to-prison pipeline."* Testimony before the Subcommittee on the Constitution, Civil Rights, and Human Rights, December 1st, 2006, Committee on the Judiciary, United States Senate.

Gillson, C.E. (2011). *Mental Health Recovery Including Wellness Recovery Action Planning Program Description.*[Online]. Available from: http://www.mentalhealthrecovery.com/art_wrapp.php

Glanzman, J. and Sell, C.C. (2013). People with intellectual disabilities and offending behaviours. In E. Tsakanikos & J. McCarthy (Eds.), *Handbook of psychopathology in adults with developmental and intellectual disabili-ties: Research, policy and practice*. New York, NY: Springer Science.

Goffic, R. (2019). Self-efficacy's role in success of quality training programmes. *Industrial and Commercial Training*, 24-39.

Grehring, O. (2012). Dis/ability critical race studies (DisCrit): Theorizing at the intersections of race and dis/ability. *Race Ethnicity and Education, 16*(1), 1-31.

Grier, T. (2015). *Coming home: Analysis of the reintegration experiences of ex-offenders* (Order No. 3684479). Available from ProQuest Central. (1660199858).

Griffiths, I. and Cunningham, V. (2010). Testing control theory and differential association: a reanalysis of the Richmond Youth Project data. *Criminology* 37(4):815–42

Gultin, M. and Dadu, C.A. (2019). The impact of intellectual functioning on symptoms and service use in schizophrenia. *Journal of Intellectual Disability Research, 50*, 288–294.

Gumi, W.C. (2014). Expansion of police power in public schools and the vanishing rights of students. *Social Justice, 29*(1-2), 119-130.

Gunat, D. (2016). Theory of mind and psychoses. *Psychological Medicine, 28*, 397–405.

Haft, I. and Khimerg, O. (2018). Inpatient hospital use in the first year after release from prison: A Western Australian population-based record linkage study. *Australian and New Zealand Journal of Public Health*, 35, 264–269.

Hajij, K. and Khamaj, O. (2012). Positive psychology in clinical practice. *Annual Review in Clinical Psychology*, *1*, 629–651.

Hammachek, O. (2011). *Family Therapy and Beyond: A Multisystemic Approach to Treating the Behavior Problems of Children and Adolescents.* Pacific Grove, Calif.: Brooks/Cole.

Harding, N.H. et al (2014). Beyond basic needs: Social support and structure for successful offender reentry. *Journal of Quantitative Criminal Justice & Criminology* 2 (4) 8:1-7

Harley, D. A. (2014). The role of supportive housing in successful reentry outcomes for disabled prisoners. *Cityscape, 15*(3), 53-75.

Harper, S. and Chitty, V. (2014). *Cross National Studies in Crime and Justice*. Bureau of Justice Statistics Bulletin NCJ 200988. Washington, DC: Bureau of Justice Statistics.

Harrington, P. and Bailey, C.V. (2015). Access to healthcare services during incarceration among female inmates. *International Journal of Prisoner Health*, 12, 204–215.

Harris, C. (2016). Reaction time and mental retardation. In N. R. Ellis (Ed.*), International review of research in mental retardation (Vol. 3, pp. 163–193*). New York: Academic Press.

Hart-Kerkhoffs, W.R. (2019). School reintegration after stroke. *Topics in Stroke Rehabilitation/Summer* 10(2):107–129

Hassan, M.A, and Oloyede, T.O. (2013). Evaluation of Component of Adult Education on the Inmates Welfare in Agodi Prison Yard, Ibadan, Oyo States, Nigeria: *International Journal of correctional education.*

Hassan, S. and Mooney, B. (2019). Mental disorder in adults with intellectual disability. Prevalence offunctional psychiatric illness among a community-based population aged between 16 and 64 years. *Journal of Intellectual Disability Research, 45*, 495–505.

Hassett, O. and Gevirtz, S.N. (2019). *Cognitive therapy of anxiety disorders: Science and practice*. New York, NY: Guilford.

Hawley, J., Murphy, I., & Souto-Otero, M. (2012). Prison education and training in Europe: Current state of play and challenges. *European Journal of Criminology, 9(1), 6-22.*

Heaney, M.F. (2013). Successful reentry: What differentiates successful and unsuccessful parolees? *International Journal of Offender Therapy and Comparative Criminology* 54(5): 667–692.

Hepburn, K. (2014). Schizophrenic and paranoid syn-dromes in persons with mental retardation: Assessment and diagnosis. In R. J. Fletcher & A. Dosen (Eds.), *Mental health aspects of mental retardation: Progress in assessment and treatment*. New York: Lexington.

Herbert, A.R. (2021). Side effect profiles of atypical antipsychotics, typical antipsychotics, or no psychotropic medications in per- sons with mental retardation. *Research in Developmental Disabilities, 21*, 75–84.

Herman, T. and Dornbusch, D. (2017). Family Factors as Correlates and Predictors of Juvenile Conduct Problems and Delinquency." In M. Tonry and N. Morris (eds.). *Crime and Justice: An Annual Review of Research, Vol. 7.* Chicago, Ill.: University of Chicago Press, 29–149.

Hhutru, U.B. (et al 2019). Factors affecting service utilization for depression in a white-collar population. *Social Psychiatry and Psychiatric Epidemiology* 26: 230-7

Hillton, P. and Jillson, G. (2016). *Dementia praecox and paraphrenia* (R. M. Barclay, Trans.). Edinburgh: Livingstone.

Hirschi T. (1969). *Causes of Delinquency*. Berkeley: Univ. Calif. Press

Hirschi T. (2001). Ruth and me. In *Advances in Criminological Theory*, Vol. 19: *Challenging Criminological Theory*: *The Legacy of Ruth Rosner Kornhauser*, ed. FT Cullen, P Wilcox, RJ Sampson, BD Dooley, pp. 87–102. New Brunswick, NJ: Transaction Publ.

Hitchcock, P. et al (2016). The historical regulation of sexuality and gender of students and teachers. In M. L. Rasmussen, E. Rofes, & S. Talburt (Eds.), *Youth and sexualities* (pp. 63-83). New York: Palgrave.

Holzer H., Raphael S., Stoll M. (2014) Employment barriers facing previously incarcerated persons. Urban Institute. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.508.2285&rep=rep1&type=pdf

Hornung, O.U. et al., (2012). A caseof unrecognized intellectual disability and autism mis-diagnosed as schizophrenia: Are there lessons to be learned? *Mental Health Aspects of Developmental Disabilities, 11*, 55–60.

Hub, M. (2011). Mental retardation: A symptom and a syndrome. In S. D. Netherton, D. Holmes, & E. C. Walker (Eds.), *Child and adolescent psychological disorders: A comprehensive textbook* (pp. 6–23). New York, NY: Oxford University Press.

Hucklesby, F. and Wincup, V. (2014). Steps toward desistance among male young adult recidivists. In: Farrall S, Hough M, Maruna S and Sparks S (eds) *Contemporary Perspectives on Life After Punishment*. Abingdon, Oxon: Routledge, pp. 43–80.

Hueji, E. and Jiji, O. (2018). *Protective Factors for Populations Served by the Administration on Children, Youth, and Families, A Literature Review and Theoretical Framework: Executive Summary*. Washington, D.C.: U.S. Department of Health and Human Services, Administration on Children, Youth, and Families.

Huert, W. (2014). Mutual Attachment, Personality, and Drug Use: Pathways from Childhood to Young Adulthood." *Genetic, Social, and General Psychology Monographs* 124(4):492–510.

Hug, W. (2014). Tardive dyskinesia in the mentally retarded: comparison of prevalence, risk factors and topography with a schizophrenic population. *Acta Psychiatric Scandinavia, 83*, 234–237.

Hugh, O. (2015). *Effective Family Strengthening Interventions.* Bulletin. Washington, D.C.: U.S. Department of Justice, Office of Justice Programs,Office of Juvenile Justice and Delinquency Prevention.

Hughurt, B. (2014). Chromosome abnormalities and schizophrenia. *American Journal of Medical Genetics, 97*, 45–51.

Hunter, D.T. et al (2016). Social support networks of incarcerated women: Types of support, sources of support, and implications for reentry. *Journal of Offender Rehabilitation, 53*(7), 503-521.

Hutchison, D., Hummer, H. and Wooditch, B. (2013). *Psychiatric services in jails and prisons. Report of the task force on psychiatric services in jails and prisons.* Washington, DC: Education Resource.

Hyoyundoyen, M.B. (2013). History and epidemiology of intellectual disability. In E. Tsakanikos & J. McCarthy (Eds.), *Handbook of psychopathology in adults with developmental and intellectual disabilities: Research, policy and practice*. New York, NY: Springer Science.

Ignatius, R.T. (2015). Imaginative play in children with mental retardation. *Mental Retardation, 30*, 255–263.

International Association for the Scientific Study of Intellectual Disabilities, (2009). Intellectual disability psychiatry: A practical handbook. West Sussex: John Wiley & Sons Ltd.

International Monetary Fund, (2013). Disaggregated data for disability: A challenge in developing countries. *New York: Author*

Itam, J. and Eke, V. (2019). Problem-solving therapy. In K. S. Dobson (Ed.), *Handbook of cognitive behavioral therapies* (3rd ed.). New York, NY: Guilford.

Jacobson, W. and Mulick, C.F. (2016). Mental retardation in a birth cohort, 1976–1980, Rochester, Minnesota. *American Journal of Mental Retardation, 100*, 335–344.

Jacto, T. (2013). Psychiatric disorders in mental retardation. In N. Bouras (Ed.), *Mental health in mental retardation: Recent advances and practices*. Cambridge: Cambridge University Press.

Jahoda, T. et al. (2016). Sexual offender recidivism revisited: A meta-analysis of recent treatment studies. *Journal of Consulting and Clinical Psychology, 63*(5), 802-809.

James, D. J., & Glaze, L. E. (2016). Mental Health Problems of Prison and Jail Inmates. *Bureau of Justice Statistics.* https://www.bjs.gov/content/pub/pdf/mhppji.pdf

James, V. (2015). How promising is the second chance act in reducing recidivism among male ex-offenders in Alabama, Georgia, and Mississippi? *Journal of Public Management & Social Policy, 23*(2), 22-37.

Janaki, M. C., & Anilkumar, S. (2013). Offenders re-entry: To the community. *Indian Social Science Journal, 2*(2), 60-72

Jason, R., Olson, C., and Harvey, E. (2015). Order in the court? the association between substance use, exposure to violence, risky sexual behaviors & observed court behaviors among women involved in the criminal justice system. *Journal of the National Medical Association, 111*(2), 134-147.

Jeevanandam, W. (2019). Involuntary sterilization in the United States: A surgical solution. *The Quarterly Review of Biology, 62*, 153–170.

Jepson, I. et al (2018). The intersection of race, culture, language and disability: Implications for urban education. *Urban Education, 44*(4), 389-409.

Juich, O. and Okolu, W. (2014). *Participation of Young Persons with Disabilities in Community Processes in Proceedings of the International Conference on Social and Human. Development Outcomes of Education and Poverty.* Kenyatta University 12th - 14th November, 2013. Nairobi- Kenya.

Justice Data Lab, (2015). Correctional special education. *Journal of Prison Education, 44: 1-10.*

Kadiri, C. and Osafo-Kwaako, F. (2017). Service and data use and cost of mental disorder in older adults with intellectual disability. *The British Journal of Psychiatry, 196*, 133–138.

Kala. 2017). Depression-spectrum psychoses in people with and without intellectual dis- ability. *Journal of Intellectual Disability Research, 48*, 548–555.

Kalachnik, E. et al (2015). *The Burden of Disease andInjury in Australia in 2003.* Canberra: Australian Institute of Health and Welfare.

Kaptein, S., Jansen, D., Vogels, C. and Reijneveld, S.A. (2017). Mental health problems in children with intellectual disability: use of the strengths and difficulties questionnaire. *Journal of Intellectual Disability Research, 52*, 125-131.

Kejac, E., Ertin, L. and Uigut, U.L. (2014). Psychopharmacology. In E. Tsakanikos & J. McCarthy (Eds.), *Handbook of psychopathology in adults with developmental and intellectual disabilities: Research, policy and practice*. New York, NY: Springer Science.

Kerb, W. (2017). Brief Strategic Family Therapy Versus Community Control: Engagement, Retention, and an Exploration of the Moderating Role of Adolescent Symptom Severity." *Family Process* 40:313–32.

Kerpa, F. (2019). No one knows, offenders with leaning difficulties and learning disabilities: Review of prevalence and associated needs. *Prison Reform Trust 3:278-283.*

Kessler, U. et al. (2018). Cerebral dominance and schizophrenia-spectrum disorders in adults with intellectual disability. *Journal ofIntellectual Disability Research, 44*, 638–643.

King, T.Y. et al. (2009). Perspectives of intellectual disability in Africa; epidemiology, policy and services for children and adults. *Current Opinion in Psychiatry, 22*, 457–461.

Koci, E. and Cezt, Z. (2018). Tardive dyskinesia and intellectual disability: An examination of demo- graphics and topography in adults with dual diagnosis and atypical use. *Research in Developmental Disabilities, 31*, 750–759.

Kubertz, A.D. (2016). *Evaluation of Vocational Programs of Special Schools for Children with Mental Retardation.* Unpublished Master's Thesis. University of Cape Coast, Ghana.

Kupers, T. A. (2017). *Solitary: The Inside Story of Supermax Isolation and How We Can Abolish It.* University of California Press.

Kwok, D.B. et al, 2011). *Historical and contemporary perspectives on intellec-tual disabilities.* Retrieved January 15, 2012, from http://www.mentalhelp.net/poc/view_doc.php?type=doc&id=10353&cn=208

Labora, B. (2021). Inmates with Physical Disabilities: Establishing a Knowledge Base, The Southwest *Journal of Criminal Justice, Volume 1, No. 1(1) 13-23.*

Lamb, H. R., Weinberger, L. E., & Gross, B. H. (2011). Mentally Ill Persons in the Criminal Justice System: Some Perspectives. *Psychiatric Quarterly, 82 (1), 15-31.* https://doi.org/10.1007/s11126-010-9167-5

Landreth, A. (2012). Integrating assessmentinstruments within the diagnostic process. In E. Tsakanikos & J. McCarthy (Eds.), *Handbook of psy- chopathology in adults with developmental and intel- lectual disabilities: Research, policy and practice*. New York, NY: Springer Science.

Lararsa, H. and Kimo, O. (2015). The prevalence of mental illness in prison. *Administration and Policy in Mental Health*, *29*, 21-40.

Lardén, Högström, and Niklas (2021). Effectiveness of an individual cognitive-behavioral intervention for serious, young male violent offenders: Randomized controlled study with twenty-four-month follow-up. *The Journal of Primary Prevention, 55*(3), 75-89.

Larson, F. and Ivren, C. (2016). Where is the illness in the criminalization of the mentally ill? In W.H. Fisher (Ed.). *Community-based interventions for criminal offenders with severe mental illness.* New York: Elsevier.

Latessa, E. J. (2012). Evaluating the Effectiveness of Correctional Programs: A Review of the Research. *Civic Research Institute.* https://www.uc.edu/content/dam/uc/ccjr/docs/articles/Latessa%20What%20Works%20-%20evidence%20for%20a%20State%20Criminal%20Justice%20Institute%20June%202013.pdf

Latessa, Q. et al. (2013). Correctional intervention. *Psychiatric Services. 64(9):843-7.*

Lattimore, J. et al., (2015). Mental health in prisons. In L. Møller, H. Stöver, R. Jürgens, A. Gatherer, & H. Nikogosian (Eds) *Health in Prisons. A WHO Guide to the Essentials in Prison Health*. Copenhagen: WHO Regional Office for Europe.

Laub, W. and Sampson, L. (2013). Home-Based Behavioral-Systems Family Therapy With Disadvantaged Juvenile Delinquents." *American Journal of Family Therapy* 16(3):243–55.

Leone, I. et al (2015). Race, politics, and Arab American youth: Shifting frameworks for conceptualizing educational equity. *Educational Policy, 20*(1), 13-34.

Leutwyler, A.G. et al. (2017). The effects of life circumstances on longitudinal trajectories of offending. *Criminology* 43(4): 1203–1240.

Lever, J. and Gmeiner, N. (2020). Treating Adolescent Drug Abuse: A Randomized Trial Comparing Multidimensional Family Therapy and Cognitive Behavior Therapy." *Addiction* 103:1660–70.

Lharat and Buhn (2014). A historical and theoretical review of cognitive behavioural therapies: From structural self-knowledge to functional processes. *Journal of Rational-Emotive and Cognitive Behavior Therapy 36 (4) 378-403.*

Lilly, A. (2015). Conventional ties, peer influence, and the fear of apprehension: a study of adolescent marijuana use. *Sociology. Quarterly.* 16(4):522–33

Lipsey, M. W., & Landenberger, N. A. (2015). *The Arizona Standard Program Evaluation Protocol (SPEP) for assessing the effectiveness of programs for juvenile probationers: SPEP ratings and relative recidivism reduction for the initial SPEP sample.* Nashville, TN: Vanderbilt Universirty Center for Evaluation Research and Methodology.

Lipsey, M. W., and Landenberger, N. A. (2019). Cognitive-behavioral interventions: A meta-analysis of randomized controlled studies. In B. C. Walsh, & D. P. Farrington, *preventing crime: What works for children, offenders, victims, and places* (pp. 57-71). Berlin: Springer.

Lipsey, M. W., Chapman, G. L., & Landenberger, N. A. (2011). Cogntive-Behavorial Programs for Offenders. *Annals of the American Academy of Political and Social Science*, 144-157.

Lipsey, M.W., Chapman, V. and Landenberger, C. (2011). What is the best dose of nature and green exercise for improving mental health? A multi-study analysis. *Environmental Science and Technology*, *44*(10), 3947–3955.

Lissa, A.V. et al (2018). Cognitive therapy: Current status and future directions. *Annual Review of Medicine*, *62*, 397–409.

Locke, W. and McCollum, O. (2011). Multidimensional Family Therapy for Adolescent Drug Abuse: Results of a Randomized Clinical Trial." *American Journal of Drug and Alcohol Abuse* 27(4):611–88.

Lord, E.G. and Toper, C. (2015). From zero-tolerance to compassion: Addressing the needs of girls caught in the school-to-prison pipeline through school-based mental health services. *Georgetown Journal of Law & Modern Critical Race Perspectives, 6,* 97-115.

Losa, J.F. (2012). Delinquency, situational inducements, and commitment to conformity. *Social Problems* 13(1):35–45

Loveret, O. and Kein, P. (2013). *Recent Findings from the Program of Research on the Causes and Correlates of Delinquency.* Washington, D.C.: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Lowencamp, E., Latessa, L. and Holsinger, O. (2016). Preliminary Evidence for Cognitive Mediation During Cognitive–Behavioral Therapy of Panic Disorder. *Journal of Consulting and Clinical Psychology, 75*(3), 374–379

Ludlow, E.T. et al. (2019). Delinquency and recidivism. *Journal of Emotional and Behavioral Disorders*, *22*, 3–15.

Luther, R. (2016). Effectiveness of anti-psychotic medication in people with intellectual dis- ability and schizophrenia: A systematic review. *Journal of Intellectual Disability Research, 43*, 94–104.

Lynch, E. (2014). A Critical Analysis of the Intent-to-Treat Principle in Prevention Research. *The Journal of Primary Prevention, 25*(4), 475-489.

Mallik-Kane, K., & Visher, C. A. (2018). Health and Prisoner Reentry: How Physical, Mental, and Substance Abuse Conditions Shape the Process of Reintegration. *Urban Institute Justice Policy Center*. https://www.urban.org/research/publication/health-and-prisoner-reentry

Mand, M. (2016). A controlled com-munity study of movement disorder in people with learning difficulties on anti-psychotic medication. *Journal of Intellectual Disability Research, 38*, 53–59.

Manita, E. (2018). Mental health in prison populations. A review – with special emphasis on a study of Danish prisoners on remand. *Acta Psychiatrica Scandinavica*, 110, 5–59.

Marabel, D. (2012). Depressive and anxiety disorders in intellec- tual disability. In E. Tsakanikos & J. McCarthy (Eds.), *Handbook of psychopathology in adults with develop- mental and intellectual disabilities: Research, policy and practice*. New York, NY: Springer Science.

Marna, S. (2019). *Delinquency and Opportunity*: *A Theory of Delinquent Gangs*. New York: Free Press

Maroni, S. and Bulking, C.F. (2010). The mental health needs of persons with Developmental disabilities. In D. Griffiths., C. Stavrakaki, & J. Summers (Eds.), *Dual Diagnosis,* (pp. 45-79). Toronto, ON: Habilitative Mental Health Resource Network.

Martinez, L. and Abrams, S. (2013). Qualitative analysis of reintegration needs of formerly incarcerated women in Clark County, Ohio. Retrieved from https://corescholar.libraries.wright.edu/dgi/viewcontent.cgi?article=1134&context=mph

Maruschak, L. M., Berzofsky, M., & Unangst, J. (2016). Medical Problems of State and Federal Prisoners and Jail Inmates, 2011-12. *Bureau of Justice Statistics.* https://www.bjs.gov/content/pub/pdf/mpsfpji1112.pdf

Masi, R.G. et al, (2020). Cognitive-behaviour therapy for people with psycho- sis and mild intellectual disabilities: A case series. *Clinical Psychology & Psychotherapy, 11*, 282–298.

Maulik, T.H. et al., (2011). A survey of mental health care for adults with intellectual disability in Asia. *Journal of Intellectual Disability Research, 52*, 996–1002.

McBrien, P. (2013). Evaluating the quality of correctional mental health services: an approach to surveying a correctional mental health system. *Behavioral Science and the Law*, *15*, 427-38.

McCarty, Q. (2013). The theory of effective correctional intervention: Empirical status and future directions. In Cullen, F., Wright, J. & Blevins, K. (Eds.), *Taking stock: The status of criminological theory* (pp. 12–15). New Jersey: Transaction Publishers.

McCarthy, M., Chaplin, E., & Underwood, L. (2015). Dual diagnosis in offenders with intellectual disability: Systematic review and meta-analytic study of prevalence. *Journal of Intellectual Disability Research, 59(5), 438-449.*

McGoldrick, L. (2019). *Causes of Delinquency*. Newbury Park, Calif.: Sage Publications. Henggeler, Scott W., and Charles M. Borduin. 1990. *Family Therapy and Beyond: A Multisystemic Approach to Treating the Behavior Problems of Children and Adolescents.* Pacific Grove, Calif.: Brooks/Cole.

McLeod, R.B. (2017). *Cognitive therapy of depression.* New York, NY: Guilford. Beck, J. S. (2011). *Cognitive behavior therapy: Basics and beyond* (2nd ed.). New York, NY: The Guilford Press.

McNally, D. and Calamari, V. (2018). Services in the community for adults with psychosis and intellectual disabilities: A Delphi con- sultation of professionals' views. *Journal of Intellectual Disability Research, 53*, 677–684.

Mellow, D. and Barnes-Ceeney, C.C. (2017). A strengths-based approach to prisoner reentry: The fresh start prisoner reentry program. *International Journal of Offender Therapy and Comparative Criminology*, 60(11), 1298-1314.

Mellow, O and Barnes-Ceeney, L. (2017). Stages of change in psychotherapy: Measurement and sample profiles. *Psychotherapy: Theory, Research and Practice, 20, 368-375.*

Meltzer, E. et al, (1995). Comparison of adults with intellectual disabilities and mental health problems admitted to specialist and generic inpatient units. *British Journal of Learning Disabilities, 37*, 123–128.

Mikula, O. (2018). Disability studies in education: The need for a plurality of perspectives on disability. *Remedial and special education, 32*(4), 267-278.

Ministry of Interior (2022). *Compendium of annual reports on the state of Nigeria correctional services.* Abuja: Ministry of Interior.

Minuchin, N. (2010). Home-Based Behavioral-Systems Family Therapy With Disadvantaged Juvenile Delinquents." *American Journal of Family Therapy* 16(3):243–55.

Minuchin, N. and Fishman, G. (2014). *Handbook of Family Therapy. Volume II.* Routledge, New York, NY.

Minuchin, N. and Nichols, K. (2013). *A General Theory of Crime*. Palo Alto, Calif.: Stanford University Press.

Monrea & Hirra, 2016). Treatment validity: A unifying concept for reconceptualizing the identification of a two-factor condition. *Learning Disabilities Research & Practice*, *13*, 204-219.

Muhlhausen, D.B and Hurwitz, N. (2019). From corrections to community: Youth offenders' perceptions of the challenges of transition. *Journal of Offender Rehabilitation* 44(2–3): 31–53.

Nana, M. and Lipsey, M.W. (2015). The Efficacy of Psychological, Educational and Behavorial Treatment: Confirmation from Metaanalysis. *American Psychologist, 48*(12), 1181-1209.

Naota, T. (2017). Epidemiology of mental retardation—A Swedish survey. *Brain & Development, 5*, 441–449.

NapolielIo, F. and Sweet, S.J. (2012). Rethinking the Evaluation of Family Strengthening Strategies: Beyond Traditional Program Evaluation Models." The Evaluation Exchange X (2).

National Council of Juvenile and Family Court Judges (2019). Disablement, Prison and Historical Segregation, Monthly Review, (www.zmag.org/content/Disability_Rights/04288131553429.cfm)

National Health Service (2017). Guidelines on the implementation of cognitive behavioural therapy: London: Author.

National Institute of Corrections (2018). *Why Do Criminals Offend? A General Theory of Crime and Delinquency*. Los Angeles, CA: Roxbury Publishing Company.

National Institute of Justice (2018). 2018 Update on prisoner recidivism: A 9-Year follow-up period (2005-2014). Retrieved from https://www.bjs.gov/content/pub/pdf/18upr0yfup0514.pdf

National Institute of Mental Health (2010). Psychological factors. In E. Tsakanikos & J. McCarthy (Eds.), *Handbook of psychopathology in adults with developmental and intellectual disabilities: Research, policy and practice*. New York, NY: Springer Science.

Nicholas, A.L. (2019). Disability and the justification of inequality in American history. In P.K. Longmore & L. Umansky (Eds.), *The new disability history: American perspectives.* New York: NYU Press.

Nichols, I. and Schwartt, H. (2018). *Functional Family Therapy: Principles and Procedures.* Carmel, Calif.: Brooks/Cole.

Nichols, K. and Minuchin, N. (2019). *Causes of Delinquency*. Newbury Park, Calif.: Sage Publications.

Nichols, K. and Schwartz, D.V. (2018). Brief Strategic Family Therapy Versus Community Control: Engagement, Retention, and an Exploration of the Moderating Role of Adolescent Symptom Severity." *Family Process* 40:313–32.

Niven, E. and Olagundoye, V. (2022). A follow-up study on recidivism among adjudicated juveniles with special education in the juvenile correctional facility. *Youth Justice*, *20*(3), 328–343.

Nolen- Hoeksema, D. (2015). Psychotic disorders in people with ID: Diagnostic and treatment issues. *Mental Health Aspects of Developmental Disabilities, 2*, 1–11.

Nwosu, A. (2018). "Ethnic Diversity and Conflict Resolution in the South-South Geopolitical Zone of Nigeria." Journal of Peace and Conflict Studies, 25(4), 112-127.

O'Hear, O. (2017). I wanted to feel the way they did": Mimesis as a situational dynamic of peer mentoring by ex-offenders. *Deusingnt Behavior*, 38, 1027–1041.

Oar, R., McLellan, V., and Rapee, F. (2017). Maximizing exposure therapy: An inhibitory learning approach. *Behaviour Research and Therapy*, *58*, 10–23.

Ober, D. and Kanert, V.X. (2012). Psychotic illness in people with Prader- Willi syndrome due to chromosome 15 maternal uni- parental disomy. *Lancet, 359*, 135–136.

Obi, J. (2022). "Gender Inequality and Women Empowerment in the South-South Geopolitical Zone of Nigeria." Gender Studies Review, 18(1), 34-49.

Obii, U.I. (2012). People with intellectual disability, sensory impairments and behavior disorder: A case series. *Journal of Intellectual Disability Research*, *26,* 264–272.

Odson, P. and Herich, C.Z. (2016). Strategies for Managing Suicide and Self Harm in Prisons", Australian Institute of Criminology, *Trends and Issues in Crime and Criminal Justice 2 (2)87-92*

Oge, B. and Ije, E. (2014). Family-Strengthening Approaches for the Prevention of Youth Problem Behaviors. *American Psychologist* 58(6–7): 457–65.

Ogu, D. and Kayode, B. (2018). Falls-efficacy in relation to impairments and ADL disability in elderly stroke patients: A prospective investigation. *Journal of Rehabilitation Medicine* 35(5): 202-207.

Ogunrin, O. A., & Adeyemi, J. D. (2018). Challenges in accessing data on intellectual disabilities in Nigeria. African Journal of Disability, 7, 1-8.

Ojewale, A. O., & Akinpelu, A. O. (2019). Knowledge and attitudes towards intellectual disabilities among healthcare professionals in Nigeria. Journal of Intellectual & Developmental Disability, 44(2), 178-187.

Oke, D. and Idila, P. (2014). Strengthening Families to Prevent Drug Use in Multiethnic Youth." In G. J. Botvin, S. P. Schinke, and M. A. Orlandi (eds.). *Drug Abuse Prevention with Multiethnic Youth.* Newbury Park, Calif.: Sage Publications, 253–92.

Okeke, U. (2017). "Infrastructure Development and Economic Growth in the South-South Geopolitical Zone of Nigeria." International Journal of Development Studies, 15(2), 78-92.

Okoli, C. (2015). "Political Economy of Development in the South-South Geopolitical Zone of Nigeria." Journal of African Studies, 20(3), 45-60.

Okunola, R. (2018). Institutional Treatment and Social Stigma: A Comparative Study of Amanawa Leprosarium and Sokoto Prisons .Sokoto State: Faculty of Social Sciences'. *A Research Publication*, Usmanu Danfodiyo University, Sokoto, Sokoto State, Nigeria.

Okwudire, A. N., & Orim, M. A. (2016). Collaborative partnership as correlates of evidence-based practice in comprehensive diagnostic assessment process of children with autism spectrum disorders in Nigeria. *Proceedings of Multidisciplinary Academic Conference on Education, Teaching and Learning. Page 131-138 ISBN: 978-80-88085-11-9*

Okwudire, A.N. and Orim, M.A. (2019). Excessive scholastic education: Shifting focus to developing economic capacity through financial education among 21st century persons with disabilities in Imo State, Nigeria. *Journal of Nigerian Academy of Education 15 (2) 131-145*

Olaitan, K.I. (2018). *Special Education in Contemporary Society: An introduction to exceptionality* (3nd ed.). Canada: Sage Publications.

Oldobo, O. (2019). The fear of feminization: Los Angeles high schools in the progressive era. *Feminist Studies, 16*, 493-518.

Oli, K.P. (2015). Empathy. In J. Norcross (Ed.), *Psychotherapy relationships that work* (2nd ed.). New York, NY: Oxford University Press.

Olsen, P. and Itinert, O. (2018). Characteristics of schizophrenia among per- sons with severe or profound mental retardation. *Psychiatric Services, 51*, 922–924.

Olson, W. (2022). Negative symptoms in schizophrenia: Definition and reliability. *Archives of General Psychiatry, 39*, 784–788.

Oluwaseun, A. A., & Oyedeji, A. O. (2020). Parental experiences of raising a child with intellectual disabilities in Nigeria. Journal of Child and Family Studies, 29(6), 1603-1612.

Omole, J. (2019). Effectiveness of After-Care service in the rehabilitation and supply of labour into the economy by ex-offenders in Oyo and Lagos state commands of the Nigerian prison service. *The Crime Psychology 7 (2) 89-100*

Omoni, F. (2019) carried out a study titled "An Assessment of the Qualitative Education for Prisoners in Delta State, Nigeria. *Criminology, 28*(3), 369–404.

Omoni, G.E., and Ijeh, S.U.(2019). Qualitative Education for Prisoners: A Panacea to Effective rehabilitation and Integration into the society: *Edo Journal of Counselling,2*(1), 28–37

Onisanwa, I. D.(2014). The Impact of Health on Economic growth in Nigeria. *Journal of Economics and Sustainable Development*, *5*(19), 159-166.

Ontario Ministry of Education (2004). In Crown Heights, residents still cling to their grievances. *The Jewish Daily Forward*. Retrieved from http://forward.com/news/1241562/in-crown-heights-residents-still-cling-to-their-gr/

Onuoha, B. (2020). "Governance and Security Challenges in the South-South Geopolitical Zone of Nigeria." Journal of Political Science, 35(3), 89-104.

Onweonye, C, Obinne, J.I., and Odu, K.O. (2013). Vocational Training Needs of Prison Inmates in Delta State for Self-reliance. *The Global journal of Educational Perspectives*: *The African Education and Business Research Institute*, *Inc.1*(1).

Orians, N. (2016). Improving the success of reentry programs: Identifying the impact of service–need fit on recidivism. *Criminal Justice and Behavior*, *44*(3), 336–359.

Orim, M.A. and Assam (2022). Diagnostic masking of hearing defects in intellectual disability: Implication for complementary audio-visual instructional support in Oyo State, Nigeria. *Journal of Association of Sign Language Interpreters of Nigeria (ASLIN) 1(1) 31-40*

Orim, M.A., et al (2022). Cognitive behavioral therapy as treatment intervention for aggressive behaviors in clients with intellectual disability and concomitant mental health conditions. *Journal of Education Health Promotion 20:1-8*

Orim, S. O., & Orim, M. A. (2018). Forensic psychotherapies for curbing offending behaviors among clients with intellectual disabilities in Nigerian rehabilitation centers. *E-pedagogium 11/2018: 86-95*

Orim, M.A., Vojtec, R. and Assam, A.E. (2023). Essai clinique d'un programme d'intervention en lecture pour les lecteurs en difficulté issus de divers milieux sociodémographiques à Ibadan, dans l'État d'Oyo, au Nigéria. *Journal of the Cameroon Academy of Sciences 19 (3) 261-271 DOI: https://dxdoi.org/10.4314/jcas.v19i3.6*

Orlando, K. (2011). Psychosis in mental handicap. *The British Journal of Psychiatry, 130*, 525–533.

Ostreicher, H.M. (2013). Restorative interventions and school discipline sanctions in a large urban school district. *American Educational Research Journal, 53*(6), 1663-1697.

Othorn, I. (2011). Can Violent Offenders Be Distinguished from Frequent Offenders? Prediction from Childhood to Adolescence." *Journal of Research in Crime and Delinquency* 33:206–31.

Otonga, Q. (2013). Psychosis and adults with intellectual disabilities: Prevalence, incidence and related factors. *Social Psychiatry and Psychiatric Epidemiology, 42*, 530–536.

Parker, C. K. et al (2010). Epidemiology ofintellectual disability. In J. H. Stone & M. Blouin (Eds.), *International encyclopaedia of rehabilitation (online).* Retrieved January 25, 2012, from http://cirrie.buffalo.edu/encyclopedia/article.php?id=1244&language=en.

Parker, E., Bush, C., and Harris, K. (2014). To reoffend or not to reoffend? The ambivalence of convicted property offenders. In: Maruna S and Immarigeon R (eds) *After Crime and Punishment: Pathways to Offender Reintegration*. Cullompton: Willan Publishing, pp. 152–180.

Partel, E. and Colma, A.C. (2014). Schizophrenia spectrum disorders. In E. Tsakanikos & J. McCarthy (Eds.), *Handbook of psychopathology in adults with developmental and intellectual disabilities: Research, policy and practice*. New York, NY: Springer Science.

Paulson, H. (2013). Evaluating alternative aftercare models for ex-offenders. *Journal of Drug Issues, 45*(1), 53-68.

Pearson, F.G. et al (2022). Effects of a Cognitive Restructuring Program on Inmate Institutional Behavior. *Criminal Justice and Behavior, 26*, 466.

Perkh and Garhmer (2014). Family therapy: achievements and challenges. *Evidence-Based Mental Health, 11(1), 5–7.*

Peters, L.P. et al., (2020). Psychoses in adult mental defectives. II Schizophrenic and paranoid psychoses. *The British Journal of Psychiatry, 120*, 213–218.

Peterson, D.A. (2017). Offending and risky behaviour in community services for people with intellectual disabilities. *The Journal of Forensic Psychiatry and Psychology: 4(2), 220-227.*

Piloty, D.J.T. (2010). Counselling for Productive Employment of Prison Inmate: *European journal of Educational Studies,2*(3), 193 –202.

Pjani, R. and Shrugret, L. (2013). National prevalence of mental disorders among incoming Canadian male offenders. *Canadian Journal of Psychiatry*, 61(10), 624–632.

Pointedexter, V.B. (2012). Inpatient men-tal health services. In E. Tsakanikos & J. McCarthy (Eds.), *Handbook of psychopathology in adults with developmental and intellectual disabilities: Research, policy and practice*. New York, NY: Springer Science.

Polar, L. W. and Ert, R.P. (2013). Psychiatric disorders and intellectual functioning throughout development in velocardio facial (22q11.2 deletion) syndrome. *Journal of the American Academy of Child and Adolescent Psychiatry, 48*, 1060–1068.

Powell, U. and Dosser, J.I. (2012). Preventing Substance Abuse." In M. Tonry and D.P. Farrington (eds.). *Building a Safer Society: Strategic Approaches to Crime Prevention, Vol. 19, Crime and Justice: A Review of Research.* Chicago, Ill.: University of Chicago Press, 343–427.

Powell, U. and Dosser, J.I. (2018). *Blueprints for Violence Prevention, Book 3: Functional Family Therapy, Second Edition.* Boulder, Colo.: Center for the Study and Prevention of Violence.

Pratt, D., Gau, M., and Franklin, C., (2011). Social control theory and delinquency: a longitudinal test. *Criminology* 23(1):47–61

Prendergast, E. et al, (2014). Release from prison – a high risk of death for former inmates. *New England Journal of Medicine*, 356, 157–165.

Prison Insider, (2020). *Guidelines for analyzing add health data*. Carolina Population Center, University of North Carolina at Chapel Hill. Retrieved September 1, 2020, from https://addhealth.cpc.unc.edu/documentation/user-guides/

Qar, F. (2019). Technical Assistance Manual/Clinical Issues. Chapter Six: DualDiagnosis.

Quara, I. (2019). Understanding volunteerism: the role of the participant in non-clinical correctional programming. *Journal of Offender Rehabilitation, 61*(7): 357-374.

Queensland University of Technology. (2022). Out-of-school suspension and police contact: Identifying early opportunities to disrupt the school-to-prison pipeline. Retrieved from https://research.qut.edu.au/c4ie/projects/out-of-school-suspension-and-police-contact-identifying-early-opportunities-to-disrupt-the-school-to-prison-pipeline/

Quello, T., Brady, V., and Sonne, O. (2015). Prison experiences and psychological distress among older inmates. *Journal of Gerontological Social Work*, 59, 252–270.

Raghavan, Y.B. (2017). Associations between premorbid intellectual performance, early-life exposures and early-onset schizophrenia: Cohort study. *The British Journal of Psychiatry, 181*, 298–305.

Rakis, A. (2015). An empirical framework for studying desistance as a process. *Criminology* 39(2): 491–516.

Rangel, W. and Torrijo, A. (2019). Effects of individual and contextual characteristics on preadjudication detention of juvenile delinquents. *Justice Quarterly*, *22*(4), 521–539.

Rapee, O. and Koke, I. (2016). Multidimensional Family Therapy for Young Adolescent Substance Abuse: 12-Month Outcomes of a Randomized Controlled Trial." *Journal of Consulting and Clinical Psychology* 77(1):12–25.

Rebellon, W. et al. (2018). *Handbook of Family Therapy. Volume II.* Routledge, New York, NY.

Reber, P.W. (2019). National Survey ofMental Health and Wellbeing: methods and key findings. *Australian & New Zealand Journal of Psychiatry* 43: 594-605

Redondo, W., Sanchez-Meca, C., and Garrido, R. (2019). The Positive Effects of Cognitive Behavioral Programs for Offenders: A Meta-Analysis of Factors Associated with Effective Treatment. *Journal of Experimental Criminology*.

Regier, I. et al., (2018). Interactions between seizure frequency, psychopathology and severity of intellectual disability in a popula- tion with epilepsy and a learning disability. *Epilepsy and Behaviour, 11*, 92–97.

Reid, P.A. (2012). IQ and risk for schizophrenia: A population-based cohort study. *Psychological Medicine, 27*, 1311–1323.

Reimers, Q. (2015). A Meta-Analytic Examination of Youth Delinquency, Family Treatment, and Recidivism. *Canadian Journal of Criminology* 43(1):237–353.

Reise, R.R. (2016). Psycho-educational groups for people with a dual diagnosis of psychosis and mild intellectual dis- ability: A preliminary study. *Journal of Intellectual Disabilities, 12*, 25–39.

Reiss, S., Levitan, G. W., & Zyszko, J. (2013). Emotional disturbance and mental retardation: Diagnostic overshadowing. *American Journal of Mental Deficiency, 86*, 567–574.

Resil, K. (2010). It Takes Two to Replicate: A Mediational Model for the Impact of Parents' Stress on Adolescent Adjustment." *Child Development* 66:80–97. Cullen, Francis T., and Cheryl Lero Jonson. 2012. *Correctional Theory: Context and Consequences.* Los Angeles, Calif.: Sage Publications, Inc.

Rettision, F. and Argern, S. (2017). Autism spectrum disorders. In E. Tsakanikos & J. McCarthy (Eds.), *Handbook of psychopathology in adults with developmental and intellectual disabili- ties: Research, policy and practice*. New York, NY: Springer Science.

Rettison, U. and Argern, O. (2017). Cooccurring disorders among mentally ill jail detainees: Implications for public policy. *American Psychologist*, *46*, 1036-1045.

Rhode, G. (2019). Diagnostic criteria for use in psychiatric research. *Archives of General Psychiatry, 26*, 57–63.

Rhode, M. (2014). Mostly harmless econometrics: An empiricist's companion. Princeton, NJ: Princeton University Press.

Rhodes, R. and Gross, C. (2017). Physical victimization in prison: The role of mental Illness. *International Journal of Law and Psychiatry*, 31(5), 385–393.

Robins, K. et al., (2018). The motor disorders of mental handicap: An overlap with the motor disorders of severe psychiatric illness. *The British Journal of Psychiatry, 158*, 97–102.

Robinson, W. (2015). Predicting Relapse: A meta-Analysis of Sexual Offender Recidivism Studies. *Journal of Consulting and Clinical Psychology, 66*(2), 348-362.

Roman, E. (2014). The processing and treatment of mentally ill persons in the Criminal Justice System, Urban Institute: Washington, DC. SaveNow

Ross, T., Fabiano, G., and Ewles, P.G. (2018). What is meant by intention to treat analysis? Survey of published randomised controlled trials. *British Journal of Medicine, 319*, 670-674.

Rouge, E.G. and Matson, B. (2014). Fear of falling in stroke patients: Relationship with previous falls and functional characteristics. *International Journal of Rehabilitation Research* 31(3): 261–264.

Royal College of Psychiatrists, 2001). Recognition of intellectual disabilities and autism in psychiatric inpatients diagnosed with schizophrenia and other psychotic disorders. *Advances in Mental Health and Intellectual Disabilities, 5*, 4–18.

Royal College of Psychiatrists. (2001). *DC-LD (diagnostic criteria for psychiatric disorders for use with learning*

Ruete, J. and Gulp, F. (2013). Treating Adolescent Drug Abuse: A Randomized Trial Comparing Multidimensional Family Therapy and Cognitive Behavior Therapy." *Addiction* 103:1660–70.

Salim, J. and Wermer, C. (2013). *Social Learning and Social Structure*: *A General Theory of Crime and Deviance*. Boston: Northeastern Univ. Press

Samuel O. O., Orim, M.A., David, A.A., James, E.O., James, A.E., Essien, E.E., Cecilia, K.E., Martin, A.O., Innocent, U.I., Sylvester, A.U., Nsagha, N.O., Raymond, O.O. and Felicia, A.U. (2022). Assessment of School Assessors' Knowledge and Competence on Diagnostic Overshadowing for Appropriate Placement of Children with Intellectual Disability in Cross River State, Nigeria. *Journal of Intellectual Disability-Diagnosis and Treatment 10: 145-153*

Sandido, L and Ulson, O. (2019). Quality of adaptive behaviour training for inmates with dual diagnosis. *International Journal of Offender Therapy and Comparative Criminology*, *102*, 16–24.

Schacter, W., Gilbert, H.C. and Wegner, N. (2010). Intrusive thoughts and intrusive memories in a nonclinical sample. *Cognition and Emotion*, 10(1), 107–112.

Schmitz, A.G. et al., (2000). Schizophrenia in mental retardation: Clinical features. *Research in Developmental Disabilities, 10*, 241–249.

Schreck, F., Stewart, B., & Fisher, N., (2016). Is differential association/social learning cultural deviance theory? *Criminology* 34(2):229–47

Sclert, T.H. (2018). Voxel-based morphometry of co-morbid schizophrenia and learning disability: Analyses in normalised and native spaces using parametric and nonparametric statistical methods. *Neuroimage, 22*, 188–202.

Sean, Y. and Rui, V. (2019). *Cognitive-behavioral treatment for generalized anxiety disorder: From science to practice*. New York, NY: Routledge.

Seigel, W. and McCormick, B. (2016). *Peer pressure*, *peer prevention*: *The role of friends in crime and conformity*. New York/London: Routledge.

Shinerc, W. (2016). Mental Health in Mental Retardation: TheABC for mental health, primary care & other professionals. (2nd ed).

Sintrel, F.C (2019). Mental health nursing ofadults with learning disabilities. RCN guidance. [Electronic Resource] London UK; Royal College of Nursing.

Skeem, J. L., & Peterson, J. K. (2011). Identifying, Treating, and Reducing Risk for Offenders with Mental Illness. *Annual Review of Clinical Psychology, 7, 311-337.* https://doi.org/10.1146/annurev-clinpsy-032210-104507

Social Solutions (2019). *Qualitative analysis of criminal cases*. Los Angeles, CA: SAGE.

Sodiq, G. and Fenton, C. (2018). Disentangling community-level changes in crime trends during the COVID-19 pandemic in Chicago. *Crime Science, 9*: 21.

Spreat, G. (2012). Association between duration of untreated psychosis and outcome in cohorts of first-episode patients: a systematic review. *Archives of General Psychiatry* 62:975-83

Spruance, S.F. et al (2015). Acceptance and Commitment Therapy, Relational Frame Theory, and the Third Wave of Behavioral and Cognitive Therapies. *Behavior Therapy, 35*, 639-665

SRI International, Center for Educational Human Services (2017). *Temubual Mendalam Kajian "Progam Latihan Vokasional dan Adaptability Kerjaya Banduan".* (M. R. Mohd Rosli, Interviewer) Institute for Crime and Justice Policy Research. *World Prison Brief.*

Stanton, Y.I and Todd, K. (2017). Effectiveness of family therapy in the treatment of male adolescent school dropouts with dual diagnosis and their families. *Journal of Research in Crime and Delinquency* 53:20–31.

Steadman, T. (2015). Inpatient care and its outcome in a specialist psychiat-ric unit for people with intellectual disability: A pro- spective study. *Journal of Intellectual Disability Research, 43*, 119–127.

Steadman, T. and Veysey, G. (2017). Adult schizophrenia with scholastic failure or low IQ in childhood. *Archives of General Psychiatry, 24*, 431–436.

Stoch, P. (2014). Inside the nation's largest mental health institution: A prevalence study in a state prison system. *BMC Public Health*, 17(1), 342.

Stratton, E. (2011). Context, Social Integration into Family, and Youth Violence." *Journal of Marriage and Family* 67(3):767–80.

Sureka, T. et al (2017). Psychiatric disorders and repeat incarcerations: The revolving prison door. *American Journal of Psychiatry*, 166, 103–109.

Swartz, A.G. (2011). Tardive dyskinesia in neuroleptically medicated mentally handicapped subjects. *Acta Psychiatrics Scandinavica, 76*, 507–513.

Szapocznik, P. (2017). Effective Family Strengthening Interventions. *Family Process* 40:513–520.

Szapocznik, P. and Kurtines, Y. (2011). Comparison of family therapy, psychodynamic child therapy and a control condition in the treatment of nine offenders with dual diagnosis. *Journal of Marriage and Family* 67(3):267–280.

Szapocznik, P., Hervis, J. and Schwartz, A. (2013). A Meta-Analytic Examination of Youth Delinquency, Family Treatment, and Recidivism. *Canadian Journal of Criminology* 43(1):237–353.

Talba, O. (2015). Exceptional Children. An introduction to special education (8th ed.). New Jersey: Prentice Hall.

Tanimu, B. (2010). Nigeria convicts and Prison Rehabilitation ideals*: Journal of Sustainable Development in Africa, 12*(3), 1-17.

Targhat, A. (2014). Inter-rater reliability of the diagnosis of psychosis and depression in individuals with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities, 20*, 384–390.

Tarolla, H.U. et al. (2012). Effects of Parental Monitoring and Peer Deviance on Substance Use and Delinquency." *Journal of Marriage and Family* 68(4):1064-1074.

Tarpey, I. and Friend, M. (2016). Best practices for effective correctional programs. Retrieved from http://www.cmitonline.org/research/publications/documents/bestpractices_7_2016.pdf

Tate, I and Lire, K. (2018). Universal design for learning. *Education for Tomorrow, 8: 45-55*

Taylor, W. (2016). Measuring What Works. *The Justice Research Center*. Retrieved from http://thejrc.com/wwi-measuring.asp

Tera, E. and Aivin, A. (2014). *Mental health and treatment for inmates and probationers.* Washington, DC: Bureau of Justice Statistics.

Terez, E.W. (2017). Problem solving and behavior modification. *Journal of Abnormal Psychology*, *78*(1), 107–126.

Tett, K.E. et al., (2012). Academic self-efficacy as a resilience factor among adjudicated girls. *International Journal of Adolescence and Youth*, *20*(2), 202–227.

The Center on Juvenile and Criminal Justice (2023). *Aging Prisoners: Crisis in American Corrections*. University Park, PA: Penn State University Press.

The National Centre for Accessing the General Curriculum (NCAGC) (2005). Curriculum adaptation for children with intellectual disability. *Journal of Education, 7 (2) 34-40*

The National Reentry Resource Center, (2019). Breaking the Cycle: Support for the Formerly Incarcerated. Retrieved from https://www.cfrnh.org/articles/breaking-the-cycle-support-for-the-formerly-incarcerated.

Thomas, E. (2019). Schizotypal cognitions as a predictor of psychopathology in ado- lescents with mild intellectual impairment. *The BritishJournal of Psychiatry, 191*, 484–492.

Tindsry, G., Lawal, E.T., and Taclead, B. (2012). Recidivism among offenders with developmental disabilities participating in a case management program. *Criminal Justice Review 11: 85-94.*

Travis, J., Western, B., & Redburn, F. S. (Eds.). (2014). The Growth of Incarceration in the United States: Exploring Causes and Consequences. National Academies Press.

Trill, A., Lewinsky, F. and Corner, O.W. (2013). Curriculum adaptation: Who benefits? *Journal of Curriculum Studies, 2 (3) 58-63*

Tsallam, E. and El bubah, K. (2017). Recurrence of neuroleptic malignant syndrome via an inadvertent rechallenge in a woman with mental retardation. *Mental Retardation, 30*, 77–79.

Tyler, K. and Brockmann, C. (2017). Engagement processes in model programs for community reentry from prison for people with serious mental illness. *International Journal of Law and Psychiatry, 37*(5), pp. 490-500.

Tylor and Fuji (2020). Vocational skills training for inmates with dual diagnosis. The study focused on assessing the extent of participation of prison inmates in vocational skills acquisition programmes in Sokoto State. *Crime & Delinquency, 52*(1), 7–27.

Uggen, K. et al. (2015). Predicting the arrest status of adolescents with disabilities in transition. *Journal for Special Educators*, *29*, 363–380.

Ukam, J. (2014). Assessment of problem-solving: A key to successful diabetes management. *Journal of Behavioral Medicine*, *27*, 477–490.

Ulmi, J. and Fulon, P. (2011). Context, Social Integration into Family, and Youth Violence." *Journal of Marriage and Family* 67(3):767–80.

Ulmi, J. and Fulon, P. (2011). Family therapy when working with community maladjusted boys with dual diagnosis and their families. *American Journal of Family Therapy* 16(3):43–55.

United Nation Office of Drug and Crime (2017). *Handbook of prisoners with special needs: Criminal justice series.* New York: Author.

United Nations Office on Drugs and Crime, (2006). *Getting Out and Staying Out: Results of the Prisoner Resettlement Pathfinders*. NY: Policy Press.

Usundt, E. and Gefeit, S. (2016). Psychiatric dis-orders in the mentally retarded: Types, problems, andchallenges. *The American Journal of Psychiatry, 139*,1297–1303.

Uzoma, K. (2021). "Youth Unemployment and Social Unrest in the South-South Geopolitical Zone of Nigeria." Journal of Social Sciences, 40(2), 67-82.

Vacca, J. S. (2014). Educated Prisoners Are Less Likely to Return to Prison. *Journal of Correctional Education, 55 (4), 297-305.* https://www.jstor.org/stable/23292095

Van Voorhis, E.T. et al (2014). The Evolution of Cognitive Behavorial Therapy: The Rise of Psychological Acceptance and Mindfullness. In *Acceptance and Mindfulness in Cognitive Behavorial Therapy* (pp. 3-26). Hoboken, NJ: John C. Wiley & Sons.

Vandala, O. and Bendall, B.B. (2019). Prospective analyses of childhood factors and antisocial behavior for students with high-incidence disabilities. *Behavioral Disorders*, *37*, 5–18.

Vanden, B. et al (2018). Supporting Complex needs. A practical guide for support staff working with people with a learning disability who have mental health needs. Estia Centre UK.

Vanstraelen, F.H. and Tyrer, F. (2019). Descriptive psychopathology in people with mental retardation. *Journal of Nervous and Mental Disease, 192*, 232–237.

Veryt, A. (2019). Epidemiology, etiology, and presentation of mental illness and behaviour disordersin persons with mental retardation. In A. Dosen & K. Day (Eds.), *Treating mental illness and behaviour dis-orders in children and adults with mental retardation.* Washington, DC: American Psychiatric Press.

Vianet, R.S. (2019). Teachers sensemaking of data and implications for equity. *American Educational Research Journal, 52*(5), 861-893.

Visher, G. et al (2022). *The school-to-prison pipeline: The intersections of students of color and disabilities*. Testimony before the United States Commission on Civil Rights, December 8th 2023, Child Trends.

Visher, S. (2006). Pathways through crime: The development of crime and desistance in the accounts of men and women offenders. *Howard Journal of Criminal Justice* 47(3): 238–258.

Vuala, Y.U. (2010). *Sociology of education.* Nairobi: Adprint.

Vulinic, D.C. (2017). Recovery from mental illness: the guiding vision of the mental health service system in the 1990s. *PsychosocialRehabilitationJournal* 16: 11-23

Weathers, L. and Liberman, M. (2015). Mutual Attachment, Personality, and Drug Use: Pathways from Childhood to Young Adulthood." *Genetic, Social, and General Psychology Monographs* 124(4):492–510.

Webster, B. et al., (2021). *Delinquency cases in juvenile court*. Office of Juvenile Justice and Delinquency Prevention, Office of Justice Programs, U.S. Department of Justice.

Weifer, H. (2008). Maintenance ECT in mentally retarded, treatment-resistant schizophrenic patients. *The Journal of ECT, 15*, 150–153.

Weisburd, A,. Lum, C.C. and Petrosino, P. (2011). Treating adolescent drug abuse: a randomized trial comparing multidimensional family therapy and cognitive behavior therapy. *Addiction, 103*, 1160-1670.

Wergeland, O. et al (2014). The origins and current status of behavioral activation treatments for depression. *The Annual Review of Clinical Psychology*, *7*, 1–38.

Wesley, D. and Dewey, V. (2018). The impact of prison deinstitutionalization on community treatment services. *Health & Justice, 3*(1), 1-12.

Wetern, R. and Koilat, C. (2015). Incarceration as a health determinant for sexual orientation and gender minority persons. *American Journal of Public Health*, 108(8), 994–999.

White, E.B. (2013). Principles ofclinical assessment. In E. Tsakanikos & J. McCarthy (Eds.), *Handbook of psychopathology in adults with developmental and intellectual disabilities: Research, policy and practice*. New York, NY: Springer Science.

Wikoff, E., Linhorst, G., and Morani, O. (2012). Offenders re-entry: To the community. *Indian Social Science Journal, 2*(2), 23-27

Wilson, Q., Bouffard, V., and MacKenzie, O. (2015). Prisoners of Hate: The Cognitive Basis of Anger, Hostility and Violence. *Criminology* 37(4):81–102

Wind, D. (2018). Schizophrenia and learning disability. *British Journal of Learning Disabilities, 24*, 90–94.

Wittchen, E.H. et al, 2011). Sterilization versus segregation: Control of the 'feebleminded', 1900–1938. *Social Science & Medicine, 33*, 449–458.

World Health Organisation (2012). *Mental Health Strengthening Mental Health Promotion (Fact Sheet No 220)*. Geneva: WHO.

Wright, T. et al., (2014). *What works (and doesn't) in reducing recidivism*. New York: Routledge.

Wye, O. (2012). Special needs under siege: From classrooms to incarceration. *Sociology Compass*, *10*(8), 698–705.

Yetot, R. and Fort, F.F. (2015). Personality disorders. In E. Tsakanikos & J. McCarthy (Eds.), *Handbook of psychopathology in adults with developmental and intellectual disabili-ties: Research, policy and practice*. New York, NY: Springer Science.

Yetot. R. & Fort, C. (2015). Classification and diagnostic systems. In E. Tsakanikos & J. McCarthy (Eds.), *Handbook of psychopathology in adults with developmental and intellectual disabili-ties: Research, policy and practice*. New York, NY: Springer Science.

Yochelson, K. and Samenow, M.C. (2019). Cognitive therapy: Nature and relation to behavior therapy. *Behavior Therapy*, *1*(2), 184–200.

Ytte, V.D. and Iuyt, O.O. (2021). Tardive dyskinesia in young mentally retarded individuals. *Archives of General Psychiatry, 43*, 335–340.

Yuli, K. and Arlison, E. (2014). On the logical adequacy of cultural deviance theories. *Theory. Criminology.* 1(4):403–28

Zalt, D. and Al Hat, V. (2014). But some of them don't come back (to prison!): Resource deprivation and thinking errors as determinants of parole success and failure. *The Prison Journal, 89*(3): 239–264.

Zindin, E. and Corbett, V. (2023). Epidemiology of psychiatric disorders in elderly compared with younger adults with learning disabilities. *The British Journal of Psychiatry, 170*, 375–380.

APPENDIX I

LETTER OF INTRODUCTION

My name is Orim, Matthew Ashike a PhD student at the Institute of Special Education Studies, Palacky University, Olomouc, Czech Republic. I am doing a research titled "Disrupting school-to-prison pipeline through forensic psychotherapies, mental healthcare services and empowerment programmes as diversion for post-release community reintegration of inmates with dual diagnosis in Nigeria.

The aim of this research is to explore policies and practices in the Nigerian criminal justice system in relation to diversion and correction programmes and services for school-to-prison inmates with conditions of dual diagnosis and their predictive contribution to post-release school reintegration. Your voice and opinion in this study will help concerned individuals understand the practices in the CJS to divert, correct, reduce recidivism and improve community integration among offenders and ex-offenders with conditions of dual diagnosis. Particularly, the study will bring new knowledge on the total rehabilitation of criminal behaviours among individuals with conditions of dual diagnosis in the Nigerian criminal justice system.

Instructions

Please read and complete this form carefully.

• If you are willing to participate in this study, put a tick (√) in the appropriate box.

• Sign and date the declaration at the end.

S/No	Item	Yes	No
1	The researcher has explained the project to me and read the explanatory statement.		
2	I understand that my participation is voluntarily and that I have the right to withdraw from this study at any time without having to give an explanation		
3	I understand that all responses given by me will be made confidential and will be used for this study only.		
4	I understand that the information I provide can be used in further research projects which have ethics approval, as long as my identity is kept		
5	I understand that the interview will involve note taking.		

6	I understand that I will be given a transcript of data concerning me for my approval before it is included in the write up of the research		

I therefore voluntarily give my consent to participate in this research and confirm to have a copy of this form for my own record.

Signature ……..Date……

APPENDIX II

NOTE: This instrument titled: School Reintegration (SR) elicits your opinion about ONLY INMATES WITH INTELLECTUAL DISABILITY AND ASSOCIATED PSYCHIATRIC ILLNESS (dual diagnosis). This instrument DOES NOT seek your opinion about inmates without these conditions.

S/NO	Statement	SA	A	U	D	SD
	Psychological interventions					
1	Inmates with intellectual disabilities and associated mental health issues need therapy to rejoin the school community successfully.					
2	Family therapy helps build love, support, and unity among inmates and their families.					
3	Lack of family love and support can lead to more criminal behavior in individuals with both intellectual disabilities and mental health issues.					
4	Lack of family love and support can cause former inmates to commit crimes again.					
5	Good family communication can reduce depression in these individuals					
6	Broken family relationships and negative attitudes towards individuals with intellectual disabilities can cause mental health issues.					
7	Inmates should be taught to monitor their thoughts, emotions, and behaviors					
8	Inmates need therapy to break the cycle of negative thoughts and feelings that lead to criminal behavior					
9	Learning to identify harmful thoughts helps inmates control their behavior					
10	Inmates need therapy to learn how to replace negative thoughts and behaviors with positive ones					
11	Therapy helps inmates build a positive self-image					
12	Psychological therapy helps inmates control their thought patterns, aiding school reintegration.					

13	Through therapy, inmates can learn to challenge negative thoughts and behaviors, leading to better adjustment in the community.					
14	Developing close relationships with family members helps inmates express their feelings about their situations.					
	Mental healthcare services					
15	Mental health medications can reduce bad behavior in these inmates.					
16	Mental health treatment lowers the chances of re-offending					
17	Challenging behaviors can be managed better with the right medications					
18	Mental health treatment as part of overall care helps inmates rejoin the community					
19	Mental health treatment should be included in care plans to lower re-offending rates					
20	Mental health treatment helps identify and address the causes of bad behavior in inmates					
21	Mental health medications can help with other psychological and skill programs					
22	Mental health treatment helps inmates understand themselves and their social environment					
23	Working with inmates' support persons improves the care plan.					
24	Policies that include mental healthcare for inmates improve correctional services					
	Empowerment programmes					
25	Special education services in prison help inmates understand themselves					
26	Prison education with an adapted curriculum helps inmates follow social rules					
27	Prison special education teaches inmates their civic responsibilities and rights					

28	An adapted curriculum teaches inmates acceptable social behaviors					
29	The adapted curriculum helps inmates understand the link between work and money					
30	Prison special education teaches inmates right from wrong					
31	Learning skills keeps inmates focused on work instead of crime					
32	Hands-on skills make inmates more useful in today's economy.					
33	Teaching many skills increases inmates' relevance to themselves, family, and the community					
34	Adapting vocational skills for inmates with both intellectual disabilities and mental health issues is beneficial					
	School reintegration					
35	School reintegration promote school attendance					
36	Effective school reintegration improves academic performance					
37	Effective school reintegration improves participation in school and class					
39	School reintegration is necessary for improved educational outcome					
40	Effective school reintegration improves social outcome					
41	Effective school reintegration supports emotional well-being					
42	Effective school reintegration helps inmates graduate					

APPENDIX III

Inventory of Prevalence, Rearrests and Crime (IPRC).

Mental health disorder/ID	**Borderline (IQ >70)**	**Mild (IQ:69–50)**	**Moderate (IQ 49–35)**	**Severe (IQ 34–20)**	**Profound (IQ < 20)**	**Total**	**Recidivism**
ADHD							
Anxiety Disorder							
Bipolar Affective Disorder							
Delusional disorder							
Depression							
Epilepsy							
Behavioural Problems							
Enuresis							
Obsessive Compulsive Disorder							
Schizophrenia							
Substance Use Disorder							
Section B					**Section B**		
Time	Rape	Theft	Physical assault	Public order	Vandalization	Possession of weapons	Drug
6 months							
1 year							
2 years							
3 years							
4 years							
5 years							

APPENDIX IV

INTERVIEW QUESTIONS

i. What identification measures and practices are available for inmates with intellectual disability and associated mental health conditions?

ii. What are the correctional policies for inmates with conditions of dual diagnosis?

iii. What correctional programmes and services does your facility have for inmates with conditions of dual diagnosis? Comment on the availability and administration of the following programmes and services?

   a. Adapted psychological interventions
   b. Mental health evaluation and treatment
   c. Prison special education
   d. Adapted vocational training