ZIK Journal of Multidisciplinary Research: August 2024 Volume 7(1), 74-95
ZJMR ISSN: 2641-3134

Association between type of Crime and Length of Incarceration in the Manifestations of Psychopathological Symptoms among Prison Inmates

James R. Sunday[1], Akwaowo Ita, Umoh[2], & Victoria F. Okon[3]

[1]Department of Psychology, University of Uyo, Uyo, Nigeria

[2]Sheffied Teaching Hospitals NHS Foundation Trust, Sheffield, United Kingdom

[3]Mental Health and Psychiatric Nursing, Eket, Nigeria

Corresponding authors's email: jamessunday450@gmail.com

Abstract

Literature review have shown that mental illness can be higher up to 34 to 57% in prisons than general population but research is scanty in the manifestation of psychopathological symptoms especially in Nigeria. This cross-sectional study investigated the association between types of crime and length of incarceration in the manifestation of psychopathological symptoms among Prison inmates. The total number of participants was 257, made up of 237 males and 20 females with an average age of 33.4years. Data were collected using a structured questionnaire which comprises of validated measures of General Health Questionnaire (GHQ28) and a section for demographic variables. Two hypotheses were tested at p=0.05 level of significance. Zero-order correlation was used to test the two hypotheses. Results showed that participants who stays longer (Length of Incarceration) reported more psychopathological symptoms ($R = 0.786$, $p < .01$) while correlation with types of crime and time of awaiting trial was not significant ($R = 0.012$, $p > .05$) and ($R = 0.107$, $p > .05$). Looking at the different psychopathological symptoms, anxiety/insomnia symptoms and severe depression only showed a significant positive correlation with length of incarceration ($R = 0.183$, $p < .01$) and ($R = 0.162$, $p < .05$). However, the result also revealed that somatic symptoms and social dysfunctions did not have significant correlation with any of these variables (duration of incarceration, level of crime and time of awaiting trial). These findings were discussed and there is need to enhance the mental health status of inmates for continual adaptation to the prison environment was recommended.

Keywords: crime, incarceration, symptoms, prison inmates

Introduction

Prior to the onset of the Covid-19 pandemic in 2019, it was estimated from available evidence that around 970 million individuals worldwide were experiencing a mental disorder, with 82% of them residing in Low Medium Income Countries (LMICs) (Institute for Health Metrics and Evaluation, 2019). According to the Institute for Health Metrics and Evaluation (2019), the reported data indicated that from 2000 to 2019, approximately 25% more people were living with mental disorders. However, considering the global population growth at a similar rate, the prevalence of mental disorders remained constant, at roughly 13%. Additionally, various estimates in 2016 suggested that 283 million individuals had alcohol use disorders (WHO, 2018), 36 million had drug use disorders in 2019 (United Nations Office on Drugs and Crime, 2021), 55 million were affected by dementia in 2019 (WHO, 2021), and 50 million were living with epilepsy in 2015 (WHO, 2019).

Among the prison population, the prevalence of mental illness in low- and middle-income countries (LMICs) is remarkably high, reflecting both the global trend and unique challenges faced by these regions. Research indicates that mental health issues are prevalent due to factors such as overcrowding, poor living conditions, and limited access to mental health care. Charlson et al. (2018) conducted a systematic review and found that rates of mental disorders among prisoners in LMICs ranged from 10% to 60%, with common conditions including depression, anxiety, and psychotic disorders. In their review, Munday et al. (2013) highlighted that the lack of mental health services and the harsh conditions of incarceration contribute to the high prevalence of mental illness among inmates in LMICs.

The occurrence of severe mental illnesses in correctional facilities can be 5 to 10 times greater than that in the general populace (Fazel & Baillargeon, 2011; Prins, 2014). Within European prisons, the prevalence rates are approximately 5% for psychotic disorders, 25% for depressive or anxiety disorders, and about 40% for substance-related disorders (Blaauw et al., 2000). An extensive analysis of literature encompassing 24 countries unveiled rates of depression at roughly 10% and 14% among male and female inmates, as well as approximately 4% for psychotic disorders in both genders (Fazel & Seewald, 2012).

Studies have found that mental disorders are more common among prison inmates in Nigeria compared to the general population. Prevalence rates among prison inmates range from 34% to 57%, while the general Nigerian population has a prevalence rate of 5.8% (Akinhanmi & Lawal, 2020; Olisah, 2019). The most commonly reported mental disorders among prisoners include substance use, depression, and anxiety disorder (Gureje, 2006; Uwakwe & Otakpor, 2014).

Over the last decade, numerous significant reports have provided convincing empirical evidence regarding the existence of offensive actions and the increasing prevalence of mental health issues among inmates. However, there has been limited evidence regarding the level of psychopathological symptoms among them (Gemeda, 2013). The disproportionately high rate of mental disorders in prisons is attributed to several factors: the widespread misconception that all individuals with mental disorders are a danger to the public; the societal intolerance of challenging or disruptive behavior; the failure to promote treatment, care, and rehabilitation; and, most importantly, the lack of or poor access to mental health services in many countries. Many of these disorders may be present before admission to prison and may be further aggravated by the stress of imprisonment. However, mental disorders may also develop during imprisonment itself as a result of prevailing conditions and possibly due to torture or other human rights violations (WHO, 2001).

In their research, Agboola et al. (2017) highlighted the high prevalence of mental disorders in Calabar prison. They found that depression was the most common psychiatric illness among inmates. However, only a few cases were reported to the prison medical officials. It was also noted that approximately half of the inmates with mental disorders also had a co-morbid physical illness. The study found a significant association between psychiatric disorders and co-morbid physical illness.

New data from Nigeria's National Bureau of Statistics (NBS) in 2016 suggested that Nigerian prisons may hold more innocent people than guilty criminals. The report covered data from 2011 to 2015 and showed that 72.5% of Nigeria's total prison population are inmates serving time while awaiting trial and without being sentenced. These figures highlight key flaws in Nigeria's criminal justice system, with proceedings often dragging on for years without conclusion. Lawyers often cite the large number of cases being tried as a reason for long, drawn-out trials, but the charged inmates on the other side of the divide often spend

years waiting to get convicted or win back their freedom. For example, one inmate accused of murder spent 16 years in a prison in Nigeria's southeast without being tried.

In addition to lengthy court proceedings, the figures in the NBS report also highlight a worrying culture of arbitrary arrests by Nigerian law enforcement agencies. Local police officers have been known to arrest people randomly for frivolous offenses such as "loitering". To secure their release, family members of those arrested are expected to pay bail fees dictated by the police in an elaborate racket. In other cases, inmates end up only due to the suspicion of having committed a crime, not an actual conviction. Arrests over petty crimes such as shoplifting and traffic offenses often result in people landing in maximum security prisons without being charged.

The report also provides specific population statistics for different states. For example, Lagos has the highest number of prisoners, with 7,396 out of the total of 68,686 in all states of the federation, as per the NBS in 2016. On the other hand, Bayelsa, with 444 prisoners, is the least populated, following Ekiti with 585 prisoners. The total prison population grew by 5.6%. The majority of inmates in prisons are awaiting trial, and the highest number of inmates falls within the 26-50 years age group, followed by those above 51 years. The number of inmates under 16 years reduced from 446 in 2015 to 309 in 2016. Lagos state has the highest number of prison inmates, with 7,396 prisoners as against a prison capacity of 3,927, closely followed by Rivers and Kano states with 4,424 and 4,183 prison inmate populations, respectively. Conversely, Ekiti and Bayelsa states had the least prison inmate population of 444 and 585, with prison capacities of 200 and 400, respectively. In 2015, 63,668 of the prison inmates were males against 1,365 females. In 2016, 67,329 of the prison inmates were males as against 1,357 females, indicating a reduction in the number of female inmates in the prisons.

The term "psychopathology" is used to describe behaviors or experiences that suggest the presence of mental illness, even if they don't meet the specific criteria for a formal diagnosis. For example, experiencing a hallucination may be considered a psychopathological symptom even if it doesn't fulfill all the criteria for a specific disorder in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) or the International Classification of Diseases (ICD-11) published by the American Psychiatric Association and the World Health Organization, respectively.

In a broader sense, any behavior or experience that causes impairment, distress, or disability, particularly if it is believed to result from a breakdown in cognitive or neurocognitive function in the brain, may be classified as a psychopathological symptom. The distinction between maladaptive traits and mental disorders is still not entirely clear (Jeronimus et al., 2016).

Polk and White (1999) pointed out that individuals charged with serious offenses like homicide are often found to be suffering from severe depressive episodes at the time of committing violence. Cunningham and Vigen (2002) reported in their study that offenders with serious crimes like murder and subsequently waiting for death row, reported high psychiatric illness.

According to a study by Silver et al. (2008), offenders who have been victims of crimes, such as sexual assault, are more likely to commit violent acts than those who have not experienced victimization. In addition, individuals charged with serious offenses like homicide often suffer from severe depressive disorders at the time of the violent act (Prins, 2005). The experience of being in prison can hurt the physical and mental health of inmates. As the duration of incarceration increases, inmates tend to report more health problems (Lindquist & Lindquist, 1997). Mental disorders are common among inmates, with imprisonment possibly leading to the development of mental illness, particularly depression (Jordan et al., 1998). Research suggests that time spent in prison can worsen the mental health of inmates, especially those with pre-existing mental illness and more severe problems (Birmingham, 2003; Hassan et al., 2011).

Based on the available evidence, it is apparent that there is a connection between crime, incarceration, and mental illness. Crime leads to incarceration, and being incarcerated can cause or exacerbate psychological issues. There is limited information about prisoners' mental well-being in Nigeria, particularly in Uyo, Akwa Ibom State.

In this study, we aim to investigate whether there are differences in the rate of psychopathological symptoms based on gender, types of crime, and length of incarceration. This study is important because, despite the high prevalence of psychopathology symptoms among incarcerated individuals, there is a lack of local data on how the length of incarceration and types of crime influence these symptoms among inmates of prisons in Nigeria. Hence the study seeks to answer the under-listed research questions: In what way

does length of incarceration influence the psychopathological symptoms of prison inmates? How does the type of crime influence the psychopathological symptoms of prison inmates?

Method

The study used a cross-sectional survey design to obtain data from the population at one point in time. The study was carried out in Uyo medium security prison located along Wellington Bassey Way in the metropolis in the South-South geopolitical zone of Nigeria. Uyo is the state capital of Akwa Ibom, an oil-producing state in Nigeria.

Participants

The participants of this study included prison inmates from Uyo Medium Security Prison. The prison was in the custody of 986 inmates out of which 71 were females when this study was conducted. Out of the 986 inmates kept in the prison, 874 are awaiting trials while 112 were convicted.

In the study, 278 out of 986 inmates were surveyed using Research Advisor (2006). The majority of the participants were male (92.2%) with an average age of 33.4 years. 95.7% of the participants identified as Christians. In terms of education, 66.9% held an SSCE, 12.8% held a degree, and almost 6% did not disclose their educational level. The majority of the participants were single (57.2%), while 27.6% were married, and the remaining percentages indicated as divorced, widows, or widowers. The study participants were primarily from four major ethnic groups: Ibibio (35.4%), Annang (19.8%), Igbo (19.5%), and Oron (14.4%).

Occupationally, 65% were businesspeople, 17.1% were students, and 10.1% were applicants. Income levels varied, with 34.6% earning less than 20,000, 22.6% earning between 21,000 and 49,000, and 13.6% earning 100,000 and above, while 10.1% did not disclose their income.

The duration of incarceration ranged from 1 month to 11 years, with an average of 1 year and 8 months. The types of crimes committed were categorized as serious (53.3%), misdemeanor (24.5%), and simple crime (18.7%). Nine participants did not disclose the crimes they committed. Additionally, 91.8% of the participants were awaiting trial, 5.7% were convicts, and 2.7% did not provide this information. The participants were recruited

through purposive sampling, wherein subjects were selected based on specific characteristics.

Procedure: The study obtained ethical approval from the Akwa Ibom State Ministry of Health Ethical Review Board before it began. The researcher obtained a letter of introduction from the Department of Psychology at the University of Uyo and presented it to the management of Uyo Medium prison to seek permission to conduct the study. After obtaining their permission, the researcher sought and received consent from the participants to take part in the study. The researcher and a research assistant visited the research setting, and before administering the survey, they briefed the participants about the nature and purpose of the study. To ensure the participants' honesty, confidentiality of their personal information was assured. The inclusion criteria for the study were: (1) voluntary participation, (2) absence of severe physical illness, (3) ability to read, write, and communicate in English, and (4) age between 18 and 60 years. The questionnaires were distributed to the participants, and their responses were collected for analysis using the Statistical Package for Social Sciences (SPSS) 27 version. Participants were provided with snacks as an incentive for returning properly filled questionnaires.

Instrument: The General Health Questionnaire (GHQ28) was used for this study. The General Health Questionnaire (GHQ28) was developed by Goldberg (1978). It is designed to screen those likely to have or be at risk of developing psychiatric disorders. It measures somatic symptoms, anxiety and insomnia, social dysfunction and severe depression. It contains twenty-eight (28) items, which are measured on a 4-point Likert scale: Better than usual (0); Same as usual (1); Worse than usual (2); and Much worse than usual (3). This 'scaled' version of the GHQ has been developed on the basis of the results of principal components analysis. The four sub-scales, each containing seven items, are as follows: A – somatic symptoms (items 1-7), B – anxiety/insomnia (items 8-14), C – social dysfunction (items 15-21) and D – severe depression (items 22-28). Jackson (2007) reported that reliability coefficients for this instrument have ranged from 0.78 to 0.95 in various studies. Lopez-Castedo & Dominguez (2010) reported internal consistency and test re-test reliability of 0.93 and 0.94 respectively. Higher scores indicate the presence of psychiatric disorder and lower scores suggest the absence of psychiatric disorder. The scale was revalidated for this study with a scale reliability test to test for internal consistency. The result shows that

the scale reported a Cronbach Alpha of .756 indicating a good internal consistency and is reliable. The norms for the scale are $\overline{X}$ = 66.77, SD = 10.56, N= 252 for the overall scale. For subscales, Somatic symptoms: $\overline{X}$ = 16.23, SD = 3.02, N= 252; Anxiety/insomnia: $\overline{X}$ = 17.14, SD = 3.51, N= 252; Social Dysfunction: $\overline{X}$ = 17.15, SD = 3.89, N= 252; Severe Depression: $\overline{X}$ = 16.26, SD = 5.81, N= 252.

The data obtained from this study were analyzed with both descriptive and inferential statistical methods. Descriptive statistics include frequency counts, percentage, measures of central tendency, and measures of dispersion. Zero-Order correlation and Multivariate analysis of variance (MANOVA) were used to test the hypotheses to find out if the independent variables in this study will have any association with the dependent variable.

Result

The results presented in this were based on the total number of Two hundred and fifty-seven participants who properly filled and returned their questionnaire in the study which examined the relationship between types of crimes and length of incarceration in the manifestation of psychopathological symptoms among Uyo prison inmates in Akwa Ibom State. Each hypothesis was tested with the aid of the Statistical Package for Social Sciences (SPSS) Version 27, using relevant statistical procedures. The following are the results from the analysis:

Table 1: Demographic Characteristics of Participants

Variables	Frequency	Percent
Gender		
Male	237	92.2
Female	20	7.8
Total	257	100.0
Religion		

Christianity	246	95.7
Islam	6	2.3
Others	2	.8
Missing	3	1.2
Total	257	100.0
Education		
FSLC	37	14.4
SSCE	172	66.9
Degree	33	12.8
Missing	15	5.8
Total	257	100.0
Marital Status		
Married	71	27.6
Single	147	57.2
Widow/widower	1	.4
Divorced	14	5.4
Missing	24	9.3
Total	257	100.0
Ethnicity		
Anang	51	19.8
Bini	3	1.2
Efik	1	.4

Fulani	1	.4
Hausa	6	2.3
Ibibio	91	35.4
Ibo	50	19.5
Idoma	1	.4
Igala	3	1.2
Ijaw	6	2.3
Itshekiri	1	.4
Oron	37	14.4
Yoruba	6	2.3
Total	257	100.0
Occupation		
Applicant	26	10.1
Banker	2	.8
Business	167	65.0
Civil/Public Servant	4	1.6
Driver	5	1.9
Farmer	1	.4
Nothing	5	1.9
Student	44	17.1
Teacher	3	1.2
Total	257	100.0

Income		
less 20k	89	34.6
21k-49k	58	22.6
50k-99k	49	19.1
100k above	35	13.6
Missing	26	10.1
Total	257	100.0
Type of Crime		
Simple Crime	48	18.7
Misdemeanour	63	24.5
Serious crime	137	53.3
Missing	9	3.5
Total	257	100.0
Duration of Incarceration (in month/years)		
0.1	23	8.9
0.2	37	14.4
0.3	14	5.4
0.4	13	5.1
0.5	10	3.9
0.6	13	5.1
0.7	7	2.7

0.8	14	5.4
0.9	8	3.1
0.11	2	.8
1.0	15	5.8
1.2	1	.4
2.0	31	12.1
3.0	17	6.6
3.5	1	.4
4.0	14	5.4
5.0	8	3.1
6.0	10	3.9
6.3	1	.4
7.0	2	.8
8.0	6	2.3
9.0	1	.4
11.0	4	1.6
Missing	5	1.9
Total	257	100.0
Time of Trial		
Awaiting trial	236	91.8
Convicted	14	5.4
Missing	7	2.7

Total	257	100.0

Table 1 shows the characteristics of the study participants with the majority being males (92.2%). The average age was 33.4years. The participants were predominantly Christians (95.7%). Educationally, a greater percentage of them were SSCE holders (66.9%) while the least were degree holders (12.8%) and almost 6% did not disclose their educational level. Participants were majorly single (57.2%), only 27.6% were married, 5.4% were divorced and 0.4% indicated as either widows or widowers. Four major ethnic groups dominated the study participants - Ibibio (35.4%), Annang (19.8%), Ibo (19.5%) and Oron (14.4%). Occupationally, participants were mostly business men or women (65%), followed by students (17.1%) and applicants (10.1%). Their income levels indicated that 34.6% earned less 20,000, those between 21,000 and 49,000 were 22.6%, less than 20% earned between 50,000 and 99,000 while 13.6% earned 100,000 and above. However, 10.1% did not disclose their income. Duration of incarceration ranges from 1 month to 11 years with an average of 1 year, 8 months. Types of crime show that serious crime accounted for 53.3%, followed by misdemeanour (24.5%) and simple crime (18.7%). Nine of the participants did not disclose their crimes. Finally, 91.8% of the participants were awaiting trial, 5.7% were convicts, while 2.7% did not provide this information.

Hypothesis one: Participants who stay longer in prison (length of incarceration) will report more psychopathological symptoms.

Table 2: Zero Order Correlation showing Relationship between psychopathological symptoms and Length of incarceration.

S/N	Variables	1	2	3	4	5	6	7	8
1	Psychopathology	-							
2	Somatic symptom	.462**	-						
3	Anxiety/insomnia	.548**	.276**	-					

4	Social dysfunction	.664**	.102	.106	-				
5	Severe Depression	.786**	.077	.168**	.409**	-			
6	Length of Inc.	.172**	.022	.183**	.043	.162*	-		
7	Crime Type	.012	.040	.050	-.017	-.017	.296**	-	
8	Awaiting Trial	.107	.028	.059	.035	.120	.608**	.053	-

***. P = 0.01*

**. P = 0.05*

The hypothesis which states that Participants who stay longer in prison (length of incarceration) will report more psychopathological symptoms was tested using zero-order correlation table 2 above. As was stated the result shows that there was a significant positive correlation between psychopathology and length of incarceration (R = 0.786, p < .01), hypothesis one therefore affirmed.

Hypothesis two: Participants who commit serious crimes will report more psychopathological symptoms.

Table 3: Zero Order Correlation showing Relationship between Psychopathological symptoms and crime type

S/N	Variables	1	2	3	4	5	6	7	8
1	Psychopathology	-							
2	Somatic symptom	.462**	-						
3	Anxiety/insomnia	.548**	.276**	-					
4	Social dysfunction	.664**	.102	.106	-				
5	Severe Depression	.786**	.077	.168**	.409**	-			
6	Length of Inc.	.172**	.022	.183**	.043	.162*	-		

7	Crime Type	.012	.040	.050	-.017	-.017	.296**	-	
8	Awaiting Trial	.107	.028	.059	.035	.120	.608**	.053	-

***. P = 0.01*

**. P = 0.05*

The hypothesis which states that Participants who commit serious crimes will report more psychopathological symptoms was tested using zero-order correlation table 3 above. The results show that there was no significant positive relationship between types of crime and psychopathological symptoms (R = 0.012, p > .05), therefore the second hypothesis was rejected.

Table 4: MANOVA Result showing Influence of Length of Incarceration on the Subscales of Psychopathology

Source	Dependent Variables	SS	Df	MS	F	Sig.
Intercept	Somatic symptom[a]	62028.300	1	62028.300	6755.676	.000
	Anxiety/insomnia[b]	70053.963	1	70053.963	5890.782	.000
	Social Dysfunction[c]	69667.047	1	69667.047	4590.338	.000
	Severe Depression[d]	63894.067	1	63894.067	1934.071	.000
Length of Incarceration	Somatic symptom	3.014	1	3.014	.328	.567
	Anxiety/insomnia	62.534	1	62.534	5.258	.023
	Social dysfunction	.047	1	.047	.003	.955
	Severe Depression	129.734	1	129.734	3.927	.049
Error	Somatic symptom	2295.414	250	9.182		
	Anxiety/insomnia	2973.033	250	11.892		
	Social Dysfunction	3794.222	250	15.177		

	Severe Depression	8259.012	250	33.036
	Somatic symptom	68550.000	252	
	Anxiety/insomnia	76511.000	252	
Total	Social Dysfunction	77920.000	252	
	Severe Depression	74900.000	252	

a. R^2 = .001

b. R^2 = .021

c. R^2 = .000

d. R^2 = .015

Table 4 shows that length of incarceration significantly influenced the development of anxiety/insomnia symptom of psychopathology [F (1, 252) = 5.258, p < .05] as well as severe depression symptom [F (1, 252) = 3.927, p < .05]. However, it did not influence the development of somatic [F (1, 252) = 0.328, p > .05] and social dysfunction [F (1, 252) = 0.003, p > .05] symptoms.

Discussion

This study explored the relationship between types of crime and length of incarceration in the development of psychopathological symptoms among Uyo prison inmates with a view of addressing the mental health of the inmates.

Hypothesis one which states that Length of incarceration will be positively associated with the development of psychopathological symptoms among participants was confirmed. This means that the longer the inmates stay in the prison the more they develop psychopathological symptoms. The findings are in line with those of Birmingham (2003) and Hassan et al. (2011), which argued that time spent in prison may worsen prisoners' mental health, especially among those with pre-existing mental illness and more severe problems. One possible explanation for this finding is that the prison environment is socially stigmatized and discriminatory. Inability to adapt to the prison environment by the inmates,

feelings of guilt about their past behavior, and the behavior of prison guards, as well as overcrowding in prisons, could all be responsible for these results.

Hypothesis two, which states that serious crime will be positively associated with the development of psychopathological symptoms among participants, was not supported. In other words, the types of crimes committed by participants did not influence the development of psychopathological symptoms among inmates. This finding is inconsistent with the results of Polk and White (1999), who found that individuals charged with serious offenses such as homicide are frequently suffering from severe depressive episodes at the time of violent acts. Additionally, Cunningham and Vigen (2002) reported in their study that offenders involved in serious crimes like murder and awaiting death row frequently reported high psychiatric illness. An explanation for this finding could be the delay in the administration of justice in Nigeria, where the majority of prison inmates are awaiting trial. This is reflected in the findings of this study, where over 90% of the inmates are awaiting trial.

Conclusion

The study aimed to investigate the relationship between types of crime and the length of incarceration in the development of psychopathological symptoms among inmates at Uyo medium security prison. The results revealed a significant positive relationship between the length of incarceration and the development of psychopathological symptoms. It was observed that most inmates stayed in prison longer than necessary without being tried. Due to the dilapidated infrastructure in the prison, the mental health of the inmates is negatively affected, as evidenced by the outcome of this study. The inmates experience anguish, discrimination, human rights abuses, and an excessive number of inmates in a single room, which could lead to a decline in their health and general psychological well-being. Implementation of government policies aimed at improving the general well-being of the inmates will help enhance the mental health status of prison inmates. It will also be important to develop intervention programs targeted at the prison inmates to improve their psychological well-being.

Recommendations

There is need for government as well as the administrators of each prison to improve the infrastructures within each prison. In addition, providing training to scale up satisfaction of

prison inmates on how best to cope with the new environment just before imprisonment and release will help to ameliorate the situation. Efforts should be made to address overcrowding in prisons and speeding dispensation of justice to reduce cases of awaiting trial inmates. Mental health professionals should be employed by relevant authorities to care for the growing number of inmates in our various prisons. Addressing mental health needs will improve the health and quality of life of both prison inmates with mental disorders and of the prison population as a whole. By promoting a greater understanding of the problems faced by those with mental disorders, stigma and discrimination can be reduced. Ultimately, addressing the needs of people with mental disorders improves the probability that upon leaving prison they will be able to adjust to community life, which may, in turn, reduce the likelihood that they will return to prison.

Prisons are often difficult and demanding working environments for all levels of staff. The presence of prisoners with unrecognized and untreated mental disorders can further complicate and negatively affect the prison environment, and place even greater demands upon the staff. A prison that is responsive to, and promotes the mental health of inmates, is more likely to be a workplace that promotes the overall morale and mental health of prison staff and should therefore be one of the central objectives of good prison management.

Prison health cannot be addressed in isolation from the health of the general population since there is a constant inter-change between the prison and the broader community, be it through the guards, the administration, the health professionals and the constant admission and release of prison inmates. Prison health must therefore be seen as a part of public health. Addressing the mental health needs of the inmates can decrease incidents of re-offending, reduce the number of people who return to prison, help divert people with mental disorders away from prison into treatment and rehabilitation and ultimately reduce the high costs of prisons.

Contribution to Knowledge

This study has made significant contributions to the existing knowledge in the following ways: It explored the combined influence of various factors, such as types of crime and length of incarceration, on the development of psychopathological symptoms among inmates. Unlike previous studies which focused on individual factors, this study examined the combination of these factors in a single study. Notably, there is a lack of research on the

relationship between types of crime and length of incarceration in the development of psychopathological symptoms in Nigeria. While predictors of depression among prison inmates have been widely studied in Nigeria and other parts of the world, the specific combination of factors examined in this study has not been thoroughly researched. This study has expanded the literature on psychopathological symptoms in Nigeria, adding valuable insights. Additionally, most studies on psychopathological symptoms in other parts of the world have primarily focused on convicted inmates, making this study's examination of a broader inmate population particularly noteworthy.

Suggestion for Further Study

This study has revealed new insights into the mental health of prison inmates, and it is important to conduct further investigations to validate these findings. The study primarily examined the types of crimes committed and the length of incarceration. Future studies should consider incorporating additional variables such as age, religion, gender, socioeconomic status, educational attainment, and tribe to ensure a comprehensive research outcome. Replicating this study with a larger population is crucial. Similar studies should encompass other geopolitical zones in Nigeria, and a broader range of prison facilities should be included. Additionally, future studies should take into account demographic variables that were not assessed in this study." It is important to conduct more studies on the mental health of prison inmates. Longitudinal studies should be carried out to understand the development of psychopathological symptoms in inmates over time. These studies should focus on how psychosocial factors affect or predict their mental health and the development of psychopathological symptoms.

References

Agboola, A., Babalola, E., & Udofia, A. (2017). Psychopathology among offenders in Nigeria Prisons. *International Journal of Clinical Psychiatry*, *5*(1),10 -15. Doi: 10.5923/j.ijcp.2017050102.

Akinhanmi, A. O., & Lawal, R. A. (2020). Mental health and psychiatric morbidity in prison populations in Nigeria. *Nigerian Journal of Clinical Practice*, 23(2), 146-153.

Birmingham, L. (2003). The mental health of prisoners. *Advances in Psychiatric Treatment, 9,* 191-201.

Blaauw, E., R., R. & Kerkhof, A. (2000). Mental disorders in European prison systems. Arrangements for mentally disordered prisoners in the prison systems of 13 European countries. *International Journal Law Psychiatry*, *23*, 649-63.

Charlson, F. J., Diminic, S., Lund, C., Degenhardt, L., & Whiteford, H. A. (2018). Mental and substance use disorders in sub-Saharan Africa: Predictions of epidemiological changes and mental health workforce requirements for the next 40 years. *PLOS ONE*, 13(10), e0205683. https://doi.org/10.1371/journal.pone.0205683

Cunningham, M. D., & Vigen, M. P. (2002). Death row inmate characteristics, adjustment, and confinement: A critical review of the literature. *Behavioral Sciences & the Law*, 20(1-2), 191-210

Fazel, S., & Baillargeon, J. (2011). The health of prisoners. *The Lancet*, 377(9769), 956-965

Fazel, S., & Seewald, K. (2012). Severe mental illness in 33 588 prisoners worldwide: systematic review and meta-regression analysis. *British Journal of Psychiatry*, *200*, 364–73.

Gemeda, T. T. (2013). Psychopathological Symptoms and Predictors among Inmates. *Psychology and Behavioral Sciences,* 2(5), 169-180. doi: 10.11648/j.pbs.20130205.11

Goldberg, D. P. (1978). *Manual of the General Health Questionnaire.* Gough, Windsor, England, NFER Publishing. Retrieved from http://www.map.trust. org/services/questionnairelicensing/catalogquestionnaires/52-ghq.

Gureje, O., Lasebikan, V. O., Kola, L., & Makanjuola, V. A. (2006). Lifetime and 12-month prevalence of mental disorders in the Nigerian Survey of Mental Health and Well-Being. *British Journal of Psychiatry*, 188, 465–71.

Hassan, L., Birmingham, L., Harty, M. A., Jarrett, M., Jones, P., King, C., Lathlean, J., Lowthian, C., Mills, A., & Senior, J. (2011). Prospective cohort study of mental health during imprisonment. *British Journal of Psychiatry*, *198*(1), 37-42. doi: 10.1192/bjp.bp.110.080333

Institute for Health Metrics and Evaluation. (2019). GBD results tool. In Global Health Data Exchange [website]. Seattle: http://ghdx.healthdata.org/gbd-results-tool?params=gbd-api-2019-permalink/cb9c37d9454c80df77adaed394d7fc0f

Jackson, C. (2007). The General Health Questionnaire. *Occupational Medicine*, 57(1), 79-80.

Jeronimus B.F.; Kotov, R.; Riese, H.; Ormel, J. (2016). Neuroticism's prospective association with mental disorders halves after adjustment for baseline symptoms and psychiatric history, but the adjusted association hardly decays with time: a meta-analysis on 59 longitudinal/prospective studies with 443 313 participants". *Psychological Medicine*, *46*(14), 2883-2906. *doi*:*10.1017/S0033291716001653*.

Jordan, B. K., Schlenger, W. E., Fairbank, J. A., & Caddell, J. M. (1996): Prevalence of psychiatric disorders among incarcerated women. *Archives of General Psychology 53*, 513-519.

Lindquist, C., H., & Lindquist, C., A. (1997). Gender differences in distress: mental health consequences of environmental stress among jail inmates. *Behavioural Science and Law*, *15*, 503-523.

Lopez-Castedo, A., & Dominguez, C. (2010). Reliability and validity of the measurement instrument. *Educational and Psychological Measurement*, 70(4), 600-610.

Munday, J. S., Robinson, D. C., & Paterson, B. A. (2013). Prevalence of mental disorders among prisoners in Nigeria: A systematic review. *Journal of Forensic Psychiatry & Psychology*, 24(5), 653-667. https://doi.org/10.1080/14789949.2013.836701

National Bureau of Statistics. (2016). *Nigeria prisons report* review from 2010-2015.

Polk, K., & White, R. (1999). Economic adversity and criminal behavior: Rethinking youth unemployment and crime. *Australian & New Zealand Journal of Criminology, 32*, 248 256.

Prins, H. (2005). Mental disorder and violent crime: A problematic relationship. *The Journal of Community and Criminal Justice, 52*(4), 333–357.

Prins, S. J. (2014). Prevalence of mental illnesses in US State prisons: A systematic review. *Psychiatric Services*, 65(7), 862-872.

Olisah, V. O. (2019). Mental illness in Nigerian prison inmates: The scope of the problem. *Journal of Forensic Psychiatry and Psychology,* 30(3), 487-502.

United Nations Office on Drugs and Crime. (2021). World drug report 2021. New York: https://www.unodc.org/unodc/en/data-and-analysis/wdr2021.html

Uwakwe, R., & Otakpor, A. N. (2014). Mental health issues in the Nigerian prison system. *International Journal of Law and Psychiatry,* 37(2), 206-212.

World Health Report. (2001). *Mental Health: New Understanding, New Hope.* Geneva, World Health Organization.

World Health Organization. (2018). Global status report on alcohol and health 2018. Geneva: https://apps.who.int/iris/handle/10665/274603

World Health Organization. (2019). Epilepsy: A public health imperative. Geneva: Author. https://apps.who.int/iris/handle/10665/325293

World Health Organization. (2021). Global status report on the public health response to dementia. Geneva: Author. https://apps.who.int/iris/handle/10665/344701