SOCIO-FORENSIC VARIABLES AS PREDICTORS OF ANTISOCIAL PERSONALITY DISORDER AMONG PRISON INMATES IN JOS PRISON, NIGERIA

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ABSTRACT
This study assessed the social-forensic variables predicting antisocial personality disorder among prison inmates in Jos Prison, Nigeria. Using the MMPI-2RF, 199 inmates participated in the study. 189 were males (91.4%), and 10 were females (8.6%). Fifty-one(25.6%) were of ages 18 – 25yrs, ninety-three (46.7. %) were of ages 26 – 35yrs, thirty-four (17.1%) were of ages 36 – 45yrs, sixteen (8.0%) were of ages 46 – 55yrs and five (2.5%) fell in the category of 56 and above. In regards to educational attainment, thirty-eight (19.1%) of the sampled inmates attained primary education, one hundred and fourteen (57.3%) attained secondary education, forty-seven (23.6%) attained up to the tertiary educational level. The study adopted the expost facto design. there was no significant differences in anti-social personality scores of prison inmates based on gender, RC4 (anti-social behaviour) (t(197) = 0.47; p>.05), RC9 (hypomanic activation) (t(197) = 1.88; p>.05), DISC-r, (t(197) = 1.47; p>.05), AGG (t(197) = 1.83; p>.05), ANP, (t(197) = .49; p>.05) and JCP(t(197) = 0.02; p>.05). The result also show that inmates differ in dimensions of scores on anti-social personality scales (RC9= (F (3,193) = 3.21, p<.05), AGG = (F (3,193) = 5.94, p<.05) and JCP = (F (3,193) = 3.34, p<.05) based on age. The result indicates that inmates significantly differ in scores on anti-social personality scales based on Type of crime (RC4= (F (4,193) = .52, p>.05); RC9 = (F (4,193) = .33, p>.05), DISC-r = (F (4,193) = 2.20, p>.05), AGG = (F (4,193) = 2.14, p>.05) ANP = (F (4,193) = .36, p>.05) and JCP = (F (4,193) = .51, p>.05).
It was concluded that there is a high prevalence rate of ASPD (63.3%) in Jos Prison, Nigeria. Younger age should be considered when designing psychological intervention for prison inmates. Age, prison status and type of crime/offence are important predictors of ASPD among the prison population.

Key words: *Antisocial Personality Disorder ASPD, MMPI-2RF, prison,prison inmates, socio-forensic variables,type of crime/offence, prison status*

INTRODUCTION

Antisocial personality disorder (ASPD) is characterized by a pervasive pattern of socially irresponsible, exploitative, and guiltless behavior. The disorder is associated with significant psychosocial impairment, depression, substance misuse, and domestic violence; suicide is an all too common outcome (Goldstein, R. B., Dawson, D., A., Saha, T. D., 2007). Antisocial personality disorder is a mental health condition in which a person has a long-term pattern of manipulating, exploiting, or violating the rights of others. This behavior is often criminal and the condition is common among people who are in prison. People with ASPD have a pattern of aggressive and irresponsible behaviour which emerges in childhood or early adolescence (Goldstein, R.B., Grant, B.F., & Ruan, W.I., 2006). The DSM-IV-TR defines Antisocial personality disorder as “a pervasive pattern of disregard for, and violation of the right of others that begins in childhood or early adolescence and continues into adulthood” (APA, 2000).

Antisocial personality disorder has also been known as “psychopathy, sociopathy or dissocial personality disorder” (APA, 2000). This disorder is characterized by terms such as deceit, manipulation, disregard to others, illegal activity, impulsivity, aggression, con others, and a disregard for safety. Antisocial personality disorder is a diagnosis that is used for adults 18 and over who are diagnosed with Conduct Disorder before age 15 and exhibit the behaviors previously listed (APA, 2000).

The World Health Organization's International Statistical Classification of Diseases and Related Health Problems', tenth edition (ICD-10), defines a conceptually similar disorder to antisocial personality disorder called Dissocial Personality Disorder (Oscar, 2009; Adrian, 2010). Though the diagnostic criteria for ASPD were based in part on Hervey Checkley’s pioneering work on psychopathy, ASPD is not synonymous with psychopathy and the diagnostic criteria are different (Kuepper, Y., Alexander, N., Osinsky, R., Mueller, E., Schmitz, A., Netter, P., 2010).

Major causes of antisocial personality disorder are unknown. Genetic factors and environmental factors, such as child abuse, are believed to contribute to the development of this condition. Social and environmental factors are also understood to contribute to the development of antisocial personality disorder. For example, adverse early experiences, such as neglect or abuse have been identified within the literature (Lieb, Zanari, Schmahl, Linehan & Bohus, 2004). People with an antisocial or alcoholic parent are at increased risk. The development of antisocial personality disorder is understood to be a product of biological, psychological and social factors (Alwin, N., Blackburn, R., Davidson, K., Hilton, M., Logan, C., & Shine, J. , 2006).

Prisoners are from different economically and socially disadvantaged circumstance, characterize by substance abuse, family disruption, and other traumatic experiences (Moxon, 2010). The prisoners have experienced many more potentially damaging life experiences than their never-imprisoned counterparts. In addition to prevalent experiential hardships, prisoners also display high rates of psychological disorders. They show high rates of personality disorder, affective disorders, functional psychosis, depression and post-traumatic stress disorder (PTSD), among other psychological problems (Davison, Leese, & Taylor; 2001; Esere, 2007). People with ASPD have often grown up in families where parenting was characterized by conflict and inconsistency, and care sometimes transferred to outside agencies (Black, D.W., Baumgard, C.H., Bell, S.E. ,1995).

The prevalence of mental disorders among prison inmates is significantly higher than the general population globally (Hassan, L., Birmingham, L., Harty, M.,A., et al.2011) and in Nigeria (Armiya’u, A., Obembe, A., Audu, M., Afolaranmi, T., 2013). The 1997 Adult Psychiatric Morbidity Survey (APMS) prisoners’ survey identified ASPD in a very high proportion of inmates: 63% of male remand prisoners and 49% of male sentenced prisoners (Singleton, N., Meltzer, H., Gatward, R., Coid, J., & Deasy, D., 1998). People with the disorder account for a disproportionately large proportion of crime and violence committed. The estimated prevalence of ASPD in the wider general population varies with diagnostic classification system, method of assessment and place. The prevalence of ASPD is higher in correctional than in psychiatric settings.(Rotter, M., Way, B., Steinbacher M, 2002). The disorder is even higher in peculiar populations, like prisons, where there is a preponderance of violent offenders (Darke, S., Finlay-Jones, R., Kaye, S., & Blatt, T., 1996). A 2002 literature review of studies on mental disorders in prisoners stated that 47% of male prisoners and 21% of female prisoners had antisocial personality disorder (Patric & Christpoher, 2005).

Several studies provide information on the link between MMPI-2-RF scales and personality disorder symptoms. Sellbom, Ben-Porath, and Stafford (2007) demonstrated that RC 4 (compared with the original Clinical Scale 4) was the best MMPI-2 based measure of

Psychopathy, which is closely linked to Antisocial Personality Disorder. The MMPI-2-RF has several new scales that may be particularly useful in the assessment of personality disorders.

Agali (2004) in their interview with forty-eight (48) male and female prisoners on the tenth day of their incarceration, found high levels of psychological symptoms which correlated with worries and cognitive stress. Even after leaving prison, many inmates still engage in mastered antisocial and amoral behaviours. While in incarceration, many of them become pawns for social and political violence, robbery and assassination. This is why many return to the prison shortly after their release.

Imprisonment status (awaiting trials, convicts and lifers) has been shown to significantly affect prisoners' anxiety state (Koleoso, O.N., & Osasona, S.O., 2013). However, other imprisonment status, such as those awaiting trail, those on long-term sentence, and those on life imprisonments, were not significantly different from one another on the measure of anxiety.

Although one of the most consistent findings in research on ASPD is its higher prevalence among men, the origins of this sex difference remain unclear. Rosenfield (2000), commented that evidence on this subject is mixed at best. Chrust and Jacob (2001) found that ASPD are predominant when the perception of the female role is confused. This is because for a woman in a Nigerian society to commit a crime, the pressures towards deviance must be greater because the generally accepted role of a woman is one of conforming and submission. In a study by Findlay Jones and Burvill (2004) using the General Health Questionnaire, report that sex differences in prevalence rates of ASPD were frequently not significant, occasionally non-existent, and sometimes reversed.

The second socio forensic variable considered in this study is Jail term, that is, the period of confinement. Banister (2003) conducted a research on long term prisoners; he administered a battery of cognitive, psychomotor and personality tests. Results of the tests indicated a high level of ASPD, need for affiliation and need for interpersonal relationship among the prisoners. The study also revealed that as the years passed by these needs decreased and were replaced by feelings of hopelessness, helplessness, hostility, introversion, negative self-esteem, apathy and regression in behaviour·

In other studies, Agua and Allen (2003), Jacob (2004) carried out a psychological evaluation of psycho-physiological symptoms in prisoners referred to them at the first 3 months of confinement. Their findings revealed what they called 'short-times syndrome'. This is characterized by dizziness, headache, skin disorders and abdominal dysfunction. These feelings they added were replaced by increasing psychopathic difficulties, subjective, distress and defensiveness as their years in prison increased, However, these findings appear to have limited generalizability because only inmates previously referred for psychological evaluation were included as subjects. Cohen and Taylor (2001); carried out a study in which subjects serving over 10 years in a maximum security prison. Verbal interview sand case histories were method used in their study. Result of their study showed that long term confinement had much adverse effects on the subjects than the controls. Subjects of long term confinement showed greater evidence of need for affiliation and need for interpersonal relationship than the non-confined control group. But these needs decreased as the years passed by and feelings of hopelessness, negative self-esteem, apathy and regression in behaviour increased. Cognitive impairment, disorientation in time and poorer psychomotor performance were observed years after their confinement.

Type of crime/offence is a variable that is clearly examined on admission in the Nigerian prisons as it determines the cell placement and psychological management of the prisoner. Studies in the western countries have examined personality in relation to crime but often come up with mixed results. Openness has been shown to positively correlate with crime. (Miller, 2001); however, Clower and Bothell (2001) found openness is negatively correlated with arrests. Extraversion was associated with likelihood of committing status offence. (an action that

is prohibited only to a certain class of people, and most often applied to offenses only committed by minors) such as truancy and running away from home (Laak, J.T., deGoede, M., Aleva,L., Brugman,G., vanLeuven,M., & Hussmann,J., 2003). Conscientiousness and agreeableness have both been repeatedly shown to be negatively related to criminal behaviour (Voller & Long, 2010; Hornsveld & deKruyk, 2005; Wiebe, 2004). Neuroticism has been shown to be positively correlated to causing property damage (Laak et al, 2003), sexual violence (Hornsveld & de Kruyk, 2005) and use of aggressive behaviour (Hines & Saudino, 2008).

STATEMENT OF THE PROBLEM

The provision of mental health services in the correctional system is challenging at best for various clinical, administrative, and structural reasons. There is a dearth of research generally in the area of the mental health status specifically in ASPD as well as assessment of ASPD using MMPI-2RF and other standard psychological instruments in the forensic population. The few studies available have serious weaknesses. They lack experimentation. Only few psychologists have carried out researches in prison populations. Fewer studies have been done on antisocial personality disorders among the prison population in Nigerian. Even these studies are limited in scope, hence they cannot be said to be externally valid. The costs and extended harm associated with ASPD include high levels of personal injury and financial damage to victims, as well as increased costs of policing, and the impact on the criminal justice system and prison services (Welsh et al. 2008). Additional costs resulting from ASPD include increased use of healthcare, lost employment opportunities, and family breakdown.

It is associated with increased morbidity and mortality, due, among other things, to increased rates of assaults, suicidal behaviour, road accidents, and sexually transmitted infections (Ellis D, Collis I and King M., 1995; Shephard and Farrington 2003). The presence of ASPD may complicate treatment of co-morbid conditions. About 9 million people are imprisoned worldwide, but the number with serious mental disorders (psychosis, major depression, and antisocial personality disorder) is unknown. For the 49,000 inmates in several Nigerian prisons (29,000 of whom are awaiting trial, while 806 are on death row) hell cannot be worse (Nigerian Tribune 2013) But unfortunately little or no verification has been carried out on why this is so, why they return to prison and cannot function well in the society which could be linked to a form of personality disorders or personality variables.

PURPOSE OF THE STUDY

Specifically, this study seeks to ascertain the social and forensic variables that will likely predict antisocial personality disorder (ASPD) among prison inmates in Jos prison, Nigeria.

HYPOTHESES

1. Male inmates will score high on antisocial personality disorder than their female counterparts.
2. Age of inmates will significantly predict their score on antisocial personality disorder.
3. Type of crime will significantly influence the pattern of inmates' scores on antisocial personality disorder.
4. Sex, age and forensic factors (type of crime and prison status) will significantly predict scores on antisocial personality disorder scale.

METHOD

Design

This study is a cross sectional survey and adopted an expost-factor design to establish the relationship between variables with no variable being actively manipulated. The independent variables were the social and forensic variables which include age, gender, type of offence,

prison status and jail term while the dependent variable is the antisocial personality disorder (ASPD).

Participants

A total sample size of 200 inmates was drawn from a target population of 1,178 inmates in the Jos Prison, Nigeria as at the time the study was being conducted using the survey sample size calculator. The study was conducted in the Jos prison which is a medium security prison located opposite the Police Command along Joseph Gomwalk Road in Plateau State, Nigeria. Stratified sampling technique was used in selecting participants based on their imprisonment status/jail term. Only 199 inmates correctly responded to their inventories. The socio-demographic results revealed that one hundred and eighty nine (189) inmates were males (91.4%), and ten (10) were females (8.6%). Fifty-one (51) (25.6%) were of ages 18 – 25yrs, ninety-three (93) (46.7. %) were of ages 26 – 35yrs, thirty-four (34) (17.1%) were of ages 36 – 45yrs, sixteen (16) (8.0%) were of ages 46 – 55yrs and five (5) were of ages 56 and above (2.5%). Educational qualification revealed that thirty-eight (38) (19.1%) of the sampled inmates attained primary education, one hundred and fourteen (114) (57.3%) attained secondary education, forty-seven (47) (23.6%) attained up to the tertiary educational level.

Instruments

The Minnesota Multiphasic Personality Inventory-2- Restructured form (MMPI-2-RF) was used to assess and measure ASPD alongside a demographic information page to obtain the demographic data of participants. It included age, gender, marital status, educational qualification, type of offence, prison status and jail term. The Minnesota Multiphasic Personality Inventory-2- Restructured form (MMPI-2-RF) which was used to measure antisocial personality disorder (ASPD) in this study consists of 338 items with a Yes or No response developed by Ben Porath and Tellegen (2008).

Procedure

The study was approved by the office of the Controller General of the Nigerian prison service Jos. The researcher took an Official Permit Letter from the Department of Psychology, Faculty of Social Sciences, Nigeria Police Academy Wudil, Kano to the institution to enable or permit the research study. This was followed with an Informed Consent Form. The researcher recruited four prison officers and six inmates from the male ward and two from female cells as research assistants who assisted in the administration and collection of the data. Research assistants were recruited across the six convicted cells and two from the female cells. Only inmates who were 18years and above and understands English participated in the study.

The instruments were administered directly to the participants (prison inmates), participants were asked to return the completed instrument to the researcher via the research assistants. Participation was voluntary after the aim of the study was clearly explained to the prisoners as well as to the prison officers. The data were collected within one week. Each participant was given a day to fill and return the inventory to a research assistant attached to him. A total of 200 inventories were administered and only 199 were filled and completed correctly in the welfare office, others in the church/mosque while some used the office of the psychology department. All the places used were serene and free from noise. After the completion of the exercise an incentive was given to those who filled correctly and returned the inventory within the stipulated time allocated to them.

RESULTS

The statistical tests used include Multivariate Analysis of variance (MANOVA) and multiple regression analysis for testing composite relationship of the independent variables.

Table 1 : Descriptive statistics of the demographics of the Prison Inmates

		Frequency	Percent
Age	18 - 25 years	**51**	**25.6**
	26 - 35 years	**93**	**46.7**
	36 - 45 years	**34**	**17.1**
	46 - 55 years	**16**	**8.0**
	Above 55 years	**5**	**2.5**
Educational	Primary sch	**38**	**19.1**
	Secondary sch	**114**	**57.3**
	Tertiary	**47**	**23.6**
Prison status	Convict	**87**	**43.7**
	Awaiting trial	**112**	**56.3**
Marital status	Married	**99**	**49.7**
	Single	**95**	**47.7**
	Widow	**5**	**2.5**
Jail term	Convict	**65**	**32.7**
	Condemned	**28**	**14.1**
	Life	**30**	**15.1**
	Awaiting trial	**76**	**38.2**
Type of offence	Simple	**126**	**63.3**
	Misdemeanour	**34**	**17.1**
	Felony	**39**	**19.6**
	Total	**199**	**100.0**

The larger percentage of the inmates (46.7%) were between age 26 – 35 years, one-fourth were between age of 18 – 25 years (25.6%), 17.1% were between 36 – 45 years and 2.5% were above 55 years. More than half had secondary school education, 19.1% had primary education while 23.6% had tertiary education. More than half were awaiting trial (56.3%) and 43.7% were convicted. 49.7% were married, 47.7% were singles while 2.5% were widowed. About two-thirds committed simple offences, 19.6% were felons and 17.1% committed misdemeanor.

Hypothesis One:

Male inmates will score high on antisocial personality disorder ASPD than their female counterparts'. This hypothesis was tested using t-test for independence and the result is presented in Table 2:

Table 2: t-test for independence showing the significant difference in the Male inmates will score high on antisocial personality disorder ASPD than their female counterparts

Anti-social Personality scale	Gender	N	Mean	S.D	t	Df	Sig.
RC4 (Anti-Social Behaviour)	Male	186	11.4731	3.27840	-.471	197	>.05
	Female	13	11.9231	4.03033			
RC9 (Hypomanic Activation)	Male	186	15.3871	4.24654	-1.885	197	>.05
	Female	13	17.6923	4.51635			
DISC-r (Disconstraint-Revised)	Male	186	11.5806	3.07500	1.476	197	>.05
	Female	13	10.2308	4.58537			

AGG (Aggression)	Male	185	4.9568	1.91625	-.214	197	>.05
	Female	13	5.0769	2.53185			
ANP (Anger Proneness)	Male	186	3.4839	1.41889	-1.839	197	>.05
	Female	13	4.2308	1.36344			
JCP (Juvenile conduct problems)	Male	186	3.7957	1.39543	-.494	197	>.05
	Female	13	4.0000	2.04124			

Source: Field work, 2018

From Table 2, results indicated that there was no significant differences in antisocial personality scores of prison inmates based on RC4 (anti-social behaviour) (t(197) = 0.47; p>.05), RC9 (hypomanic activation) (t(197) = 1.88; p>.05), DISC-r, (t(197) = 1.47; p>.05), AGG (t(197) = 1.83; p>.05), ANP, (t(197) = .49; p>.05) and JCP(t(197) = 0.02; p>.05). Based on this premise, hypothesis stated that there is significant gender differences in the score on anti-social behaviour clinical scales rejected.

Hypothesis Two

Hypothesis two stated that Age of inmates will significantly influence their score on ASPD was analyzed using one way MANOVA and the summary of the result presented in table 3.

Table 3: Summary of one-way MANOVA showing the influence of inmates' age on scores on antisocial personality disorder scales.

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Age	RC4 (Anti-Social Behaviour)	88.247	4	22.062	2.103	.082	.042
	RC9 (Hypomanic Activation)	223.755	4	55.939	3.209	.014	.062
	DISC-r (Disconstraint-Revised)	30.696	4	7.674	.765	.549	.016
	AGG (Aggression)	82.506	4	20.627	5.940	.000	.110
	ANP (Anger Proneness)	5.792	4	1.448	.729	.573	.015
	JCP (Juvenile conduct problems)	26.432	4	6.608	3.347	.011	.065
Error	RC4 (Anti-Social Behaviour)	2024.844	193	10.491			
	RC9 (Hypomanic Activation)	3364.608	193	17.433			
	DISC-r (Disconstraint-Revised)	1936.622	193	10.034			
	AGG (Aggression)	670.246	193	3.473			
	ANP (Anger Proneness)	383.203	193	1.986			
	JCP (Juvenile conduct problems)	381.022	193	1.974			
Corrected Total	RC4 (Anti-Social Behaviour)	2113.091	197				
	RC9 (Hypomanic Activation)	3588.364	197				
	DISC-r (Disconstraint-Revised)	1967.318	197				
	AGG (Aggression)	752.753	197				
	ANP (Anger Proneness)	388.995	197				
	JCP (Juvenile conduct problems)	407.455	197				

Source: Field work, 2018

The result in table 3 reveals that inmates significantly differ in scores on antisocial personality disorder scales based on level of age. The result also show that inmates differ in dimensions of scores on antisocial personality scales (RC9 (Hypomanic Activation)= (F (3,193) = 3.21, p<.05), AGG = (F (3,193) = 5.94, p<.05) and JCP = (F (3,193) = 3.34, p<.05) based on age. Further result showing the post hoc analysis or the multiple comparisons of scores on antisocial personality disorder scales levels based on the ranks is presented in table 4.

4. Descriptive statistics showing mean difference in based on age

		Descriptive			Scheffe Post hoc Test				
		N	Mean	S.D	1	2	3	4	5
RC9 (HYPOMANIC ACTIVATION)	18 - 25 years	**51**	**14.7451**	**4.36735**	-	-1.74	.48	-1.25	1.74
	26 - 35 years	**93**	**16.4946**	**4.18752**			2.22	.49	3.49*
	36 - 45 years	**34**	**14.2647**	**4.52139**				-1.73	1.26
	46 - 55 years	**16**	**16.0000**	**3.30656**					3.00*
	Above 55 years	**5**	**13.0000**	**2.82843**					
	Total	**199**	**15.5377**	**4.29086**					
AGG (aggression)	18 - 25 years	**51**	**5.2353**	**1.92446**	-	**.11**	**1.23**	**.48**	**2.83***
	26 - 35 years	**92**	**5.3478**	**1.93541**		-	**-.26**	**.02**	**-1.37**
	36 - 45 years	**34**	**4.0000**	**1.51757**				**-.75**	**-1.11**
	46 - 55 years	**16**	**4.7500**	**2.04939**					**-2.35**
	Above 55 years	**5**	**2.4000**	**1.14018**					-
	Total	**198**	**4.9646**	**1.95476**					
JCP (Juvenile Conduct Problems)	18 - 25 years	**51**	**4.1569**	**1.48825**	-	.26	.74	**.59**	**1.95**
	26 - 35 years	**93**	**3.8925**	**1.37890**		-	.48	**.32**	**1.69**
	36 - 45 years	**34**	**3.4118**	**1.43796**				**.15**	**1.21**
	46 - 55 years	**16**	**3.5625**	**1.31498**					**1.36**
	Above 55 years	**5**	**2.2000**	**1.09545**					**-**
	Total	**199**	**3.8090**	**1.44030**					

Descriptive analysis and pot hoc analysis revealed that inmates who are above 55 years (M= 19.85) reported lower scores on antisocial personality disorder scales on Hypomanic Activation; aggression and Juvenile Conduct Problems than inmates who are between age of 18 – 35 years. This shows that younger inmates were more prone to hypomania behavior, aggression and had a good history of juvenile problems. This hypothesis is thus accepted.

Hypothesis Three

Hypothesis three which stated that type of crime will significantly influence the pattern of inmates scores on ASPD was analyzed using one way MANOVA and the summary of the result presented in table 5.

Table 5: Summary of one-way MANOVA showing the influence of inmates' type of crime on scores on antisocial personality disorder scales.

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Type of crime	RC4 (Anti-Social Behaviour)	5.551	1	5.551	.516	.473	.003
	RC9 (Hypomanic Activation)	5.989	1	5.989	.328	.568	.002
	DISC-r (Disconstraint-Revised)	11.944	1	11.944	1.197	.275	.006
	AGG (Aggression)	8.139	1	8.139	2.142	.145	.011
	ANP (Anger Proneness)	1.622	1	1.622	.821	.366	.004
	JCP (Juvenile conduct problems)	1.058	1	1.058	.510	.476	.003
Error	RC4 (Anti-Social Behaviour)	2107.540	196	10.753			
	RC9 (Hypomanic Activation)	3582.375	196	18.277			
	DISC-r (Disconstraint-Revised)	1955.374	196	9.976			
	AGG (Aggression)	744.613	196	3.799			
	ANP (Anger Proneness)	387.373	196	1.976			
	JCP (Juvenile conduct problems)	406.397	196	2.073			
Corrected Total	RC4 (Anti-Social Behaviour)	2113.091	197				
	RC9 (Hypomanic Activation)	3588.364	197				
	DISC-r (Disconstraint-Revised)	1967.318	197				
	AGG (Aggression)	752.753	197				
	ANP (Anger Proneness)	388.995	197				
	JCP (Juvenile conduct problems)	407.455	197				

Source: Field work, 2018

The result in table 5 reveals that there was no significant influence of type of crime on the scores on antisocial personality disorder scales was not significant. The result indicates that inmates significantly differ in scores on antisocial personality disorder scales based on Type of crime. The result demonstrated that inmates scores on antisocial personality disorder scales (RC4 (Antisocial behaviour))= (F (4,193) = .52, p>.05); RC9 (Hypomanic Activation)= (F (4,193) = .33, p>.05), DISC-r = (F (4,193) = 2.20, p>.05), AGG = (F (4,193) = 2.14, p>.05) ANP = (F (4,193) = .36, p>.05) and JCP = (F (4,193) = .51, p>.05) did not differ based on the influenced of type of crime. The third hypothesis is thus rejected.

Table 6: Descriptive statistics showing mean difference in based on type of crime

		Descriptive		
		N	**Mean**	**S.D**
RC4 (Anti-Social Behaviour)	Convict	**11.3563**	**3.66624**	**87**
	Awaiting trial	**11.6937**	**2.94122**	**111**
	Total	**11.5455**	**3.27511**	**198**
RC9 (Hypomanic Activation)	Convict	**15.3793**	**4.65118**	**87**
	Awaiting trial	**15.7297**	**3.95646**	**111**
	Total	**15.5758**	**4.26791**	**198**
DISC-r (Disconstraint-Revised)	Convict	**11.2529**	**3.89758**	**87**
	Awaiting trial	**11.7477**	**2.42887**	**111**
	Total	**11.5303**	**3.16012**	**198**
AGG (Aggression)	Convict	**4.7356**	**2.02576**	**87**
	Awaiting trial	**5.1441**	**1.88702**	**111**
	Total	**4.9646**	**1.95476**	**198**
ANP (Anger Proneness)	Convict	**3.4483**	**1.41223**	**87**
	Awaiting trial	**3.6306**	**1.40083**	**111**
	Total	**3.5505**	**1.40520**	**198**

JCP (Juvenile Conduct Problems)	Convict	**3.7356**	**1.57347**	**87**
	Awaiting trial	**3.8829**	**1.32623**	**111**
	Total	**3.8182**	**1.43816**	**198**

Descriptive analysis and pot hoc analysis revealed that inmates scores on antisocial personality disorder scales on Hypomanic Activation; aggression and Juvenile Conduct Problems than inmates did not differ based on type of crime. This hypothesis is thus rejected

Hypothesis Four

Hypothesis four which stated that sex, age and forensic factors (prison status and type of crime) will predict ASPD scores on MMPI-2-RF scales. This hypothesis was tested using regression analysis and the result is presented in Table 7.

Table 7: Regression analysis showing sex, age and forensic factors (prison status and type of offence/crime) predicting scores on Antisocial personality disorder scales

variable	RC4 (anti-social behaviour)		RC9 (Hypomanic Activation)		DISC-r (Disconstraint-Revised)		AGG (aggression)		ANP (Anger Proneness)		JCP (Juvenile Conduct Problems)	
Gender	0.05	0.66	0.14	1.96*	-0.09	-1.23	0.12	1.71	0.00	0.05	0.03	0.48
Age	-0.15	-2.05*	0.01	0.12	0.02	0.28	-0.06	-0.78	-0.19	-2.72*	-0.19	-2.63*
Prison status	0.05	0.66	0.04	0.58	0.08	1.10	0.05	0.64	0.09	1.25	0.04	0.56
Type of offence	-0.15	-2.07**	-0.05	-0.69	-0.10	-1.33	0.03	0.38	0.01	0.10	-0.07	-0.94
R	0.21		0.15		0.16		0.15		0.22		0.21	
R Square	0.05		0.02		0.02		0.02		0.05		0.04	
F	2.51*		1.05		1.21		1.17		2.41		2.16	

Sex, age, prison status and crime/offence type jointly predicted Antisocial behavior (RC4(R^2=0.04; F (4, 195**)** = 2.51**,** *p* <.05). Sex, age, prison status and type of offence/crime accounted for 5% of the variance observed in reported antisocial personality disorder. However, the variables (Sex, age, prison status and offence type) did not predict RC9 (Hypomanic Activation) (R^2=0.02; F (4, 194**)** = 1.12**,** *p* >.05), RC7 (R^2=0.08; F (8, 194**)** = 2.43**,** *p* >.05), DISC-r (Disconstraint-Revised) (R^2=0.02; F (2, 194**)** = 1.21**,** *p* >.05), AGG (aggression) (R^2=0.02; F (2, 194**)** = 1.17**,** *p* >.05), ANP (Anger Proneness) (R^2=0.05; F (2, 194**)** = 2.41**,** *p* >.05), and ANP (Anger Proneness) (R^2=0.04; F (2, 194**)** = 2.16**,** *p* >.05). The result further revealed that age (β= -0.15, p<.05) and Type of cime/offence (β= -0.15, p<.05) independently predicted antisocial personality disorder among prison inmates. The result implies that younger inmates who committed felony crime inmates significantly reported higher on scores on antisocial behavior sub-scales. Only gender (β= -0.24, *p*<.05) independently predicted hypomania among prison inmates. Also, age was demonstrated to independently predict anger proneness (β= -0.13, *p*<.05) and juvenile conduct problems. (β= .13, *p*<.05). The hypothesis is thus supported.

DISCUSSION

The prevalence rate of ASPD for this study was 63.1%. Age (18-35years) predicted ASPD. There was also a joint prediction of age, gender, type of crime/offence and prison status on ASPD. Gender did not predict ASPD owing to the fact that fewer female inmates participated in the study, although, age independently predicted hypomania. Also, age and type of crime independently predicted ASPD and age also independently predicted hypomania among the

inmates. There was a strong indication that younger inmates who committed felony crime significantly reported higher on scores on antisocial behavior sub-scales.

Findings in this study were supported by Koleoso, O.N., and Osasona, S.O., (2013). Their research revealed that type of crime (violent and non-violent crime) significantly influenced prison inmates' anxiety. They further showed that inmates who were incarcerated based on violent were significantly more anxious than inmates who were incarcerated based on non-violent crime. In another study conducted at Agodi prison, Ibadan and Oko prison, Benin-City, using Awaritefe Psychological Index (API) on 90 prison inmates, Anakwe (1996) found that (a) ASPD was higher in prison population than the non-prison population (b) adolescent male prisoners were more anti-social that their female counterparts and (c) that ASPD decreased with age. Mgbemena (1999), in a similar study found that prisoners experienced symptoms of ASPD than non-prisoners group, ASPD was higher among young age group in the prison than the older group.

CONCLUSION

The main aim of this study was to ascertain and assess the social and forensic variables predicting ASPD among prison inmates. This study showed there was a high prevalence rate of ASPD in Jos Prison, Nigeria. Younger age should be considered when designing psychological intervention for prison inmates. Age, prison status and type of crime/offence are important predictors of ASPD among the prison population. Mental health professionals involved in the psychological treatments of ASPD of prison inmates in various correctional facilities have a duty to look out for these factors. Effective management package may well reduce these risk factors, thus improving a stable mental health for the prison inmates.

LIMITATIONS

This study has several limitations. The percentage of female inmates was low compared to their male counterparts. The participants were selected from one prison located in the metropolitan city of Jos. However, there is no confirmation that the studied prison was different from other Nigerian prisons. Despite this limitation, the findings are enough to develop new and better approaches of care and psychological interventions for ASPD in the prison population.

RECOMMENDATION

The study will provide for the need of prison psychologists, specifically clinical psychologists, social workers, psychiatrists or prison medical doctors/nurses to work together in order to help in improving the mental health of the prison population so that imprisonment should be more meaningful and total. There is need for mental health providers to focus on the predicting factors of ASPD while doing assessment and intervention. Also NGOs and government agencies should partner in decongesting the Nigeria prisons as well as speeding up the judiciary process.

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