



Substance abuse, psychopathy and aggression among prison inmates: A comparative study

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ARTICLE INFO

Keywords:

Aggressive behaviour,
Psychopathy,
Recidivism,
Substance abuse,
Prison inmates.

ABSTRACT

Previous studies particularly in Nigeria have reported higher prevalence of recidivism among male prison inmates. Several factors including prison characteristics and psychological factors have been found to contribute to recidivism. However, less is known about the differences between recidivists and non-recidivists on these psychological correlates of recidivism. The aim of this study is to investigate the differences between recidivists and non-recidivists on substance abuse, psychopathy and aggression among Nigerian male prison inmates. Participants were 255 male prison inmates (mean age = 27.96, SD = 5.38) from the Nigerian Prison Services, Enugu. Participants responded to the Drug Abuse Screening Test, Self-Report Psychopathy Scale, and Aggression Questionnaire. The results showed that there was a significant difference between recidivists and non-recidivists on substance abuse such that the recidivists had showed higher problematic drug use compared to the non-recidivists. Inmates who were recidivists showed greater psychopathic behaviour compared to non-recidivists. Similarly, the result revealed a significant difference between recidivist and non-recidivist on verbal aggression and hostility dimensions of aggression questionnaires indicating that recidivist exhibited higher verbal aggression and were more hostile compared to the non-recidivist. There was no significant difference between recidivist and non-recidivist on primary psychopathy, physical aggression and anger. This study underscores the importance of psychological intervention aimed at managing inmates with substance use problem, psychopathy and aggressive tendencies as this will greatly reduce the rate of recidivism found among Nigerian male person inmates.

Introduction

Recidivism among prison inmates is prevalence in both developed and developing countries of the world (Abrifor et al., 2012; McKean & Ransford, 2004) such a that it threatens the key function of the criminal justice system aimed at preventing criminal recidivism. In United States for instance, McKean and Ransford (2004) reported that that within three years of release from the prison, two-thirds of those inmates released will be re-incarcerated. Similar trends in criminal recidivism, rates also apply to the developing countries like Nigeria. Wilson (2009) reported that studies conducted in Nigeria have shown that 81% of male criminal offenders and 45% of female criminal inmates have been rearrested within 36 months of release from the prison. Other studies in Nigeria have alluded to the fact the rate of recidivism is growing and that male offenders are more likely to reoffend (Igbo & Ugwuoke 2003; Soyombo 2009; Ugwuoke 2010; Abrifor et al., 2012). In a study assessing gender difference, trend and pattern of recidivism among selected prisons in Nigeria, Abrifor, Atere and Muoghalu (2012) found that a persistent increase in the prevalence of recidivism from 35% in 2007 to 44% in 2008 and 52.4% in 2010 with male having higher rates of recidivism than females. The high rate of recidivism has both consequences and implications for Nigeria's social and economic growth and development. For instance, recidivism leads to high rates of crime, resulting in the loss of life and property, undermining stability, social protection and national unity (Abrifor et al., 2012). Recidivism is most commonly defined as a falling back or relapse into

prior criminal behaviour by an individual that is known to have committed at least one previous offense (Blumstein & Larson, 1971; Maltz, 1984). Bedell et al. (1998) used the term recidivist to describe the individual offender who reoffends, and recidivism to describe a pattern of repeated sentencing and incarceration characteristic of the criminal justice system.

Several factors linked to increase in recidivism among male ex-prisoners have been identified. For instance, Igbo and Ugokwe (2003) reported that prison environment conditions and negative attitude of the public towards ex-convicts are two major factors responsible for increase in recidivism. In another study conducted in South East, Nigeria, Ugwuoke (2010) found that stigmatisation, defective prison system which promotes the dissemination, as well as exchange of criminal influences and ideas are the causes of increase in recidivism. It will be noted that understanding factors that are associated with recidivism would inform interventions which could probably reduce the rate of prisoners returning to prisons. In this study, the researcher specifically focused on some psychological factors that could result in recidivism among male prison inmates. Such psychological factors are substance abuse, psychopathy and aggression.

Substance abuse among prison inmate is a major challenge for many countries in the world, including middle to low country like Nigeria. Studies have shown that substance abuse had been associated with recidivism in the criminal justice settings (Phillips, 2010). For instance, some researchers (Bonta et al., 1998; Walter et al., 2011) have shown that substance abuse

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is a strong risk factor for committing new offenses and therefore presents a difficult challenge for correctional institutions. In a review of literature and criminal justice statistics, Beck (2000) hypothesized that individuals who are released from prison will likely encounter difficulties with substance abuse, because 73.6% of individuals in the criminal justice system have substance abuse involved with their criminal behaviours. In line with this proposition, Nelson, Deess, and Allen (1999) conducted a study in which they followed men during their first 30 days after release from prison to identify themes in the men's re-entry experience and barriers to successful re-entry they faced. A primary barrier among their experiences was substance abuse, affecting 46 out of the 49 participants in the study. Similarly, Belenko et al., (2002) reported that people who abuse substances regularly tend to have more prison sentences compared to those who do not, supporting the conclusion that individuals with substance abuse problems have higher recidivism rates. Relationship between substance abuse and crime has been strongly documented worldwide (Beck & Mumola, 1999). Substance use is strongly associated with many forms of criminal activity (Oser et al., 2011) as well as elevated mortality, and psychiatric symptoms (Fazel & Baillargeon, 2011; Håkansson et al., 2011).

Psychopathy is another personality construct that had been linked to recidivism. The clinical construct of psychopathy encompasses a variety of characteristics, including serious empathy deficits, lack of remorse, impulsivity, and antisocial behaviour (Hare 2003). It will be unsurprising that the characteristics of psychopathy could lead to higher rate of recidivism. Researchers (Cleckley, 1976; Hare, 1970; McCord & McCord, 1964) have observed that psychopathy is a strong predictor of recidivism given that it is characterized by 'a persistent disregard for social norms and conventions; impulsivity, unreliability, and irresponsibility; lack of empathy, remorse and emotional depth; and failure to maintain enduring attachments to people, principles, or goals (Hare, 1991, p. 45). Studies have shown that psychopathy is a predictor of recidivism among male prison inmates. For instance, Salekin et al. (1996) conducted a meta-analysis of 18 studies with male prison inmates and found that psychopathy was a significant predictor of recidivism. Similarly, in a review on psychopathy and recidivism using the Hare Psychopathy Checklist-Revised scales (PCL-R; Hare, 1980, 1991), Hemphill, Hare and Wong (1998) found that PCL-R was consistently an important predictor across inmate samples and was consistently among the best predictors of recidivism. Previous evidence examining psychopathy-recidivism association have shown that psychopaths are more likely to be re-arrested within first years of their release (Hart, Kropp, & Hare, 1988; Serin, Peters, & Barbaree, 1991).

Like psychopathy, aggressive behaviour is another construct that is commonly found among prison inmates and may have a link to recidivism. Although studies assessing aggression-recidivism relationship are scarce, some existing studies indicates a significant association between institutional misconduct and recidivism following release (Heil, Harrison, English, & Ahlmeyer, 2009; Lattimore, Visher, and Linster (1995). These institutional misconducts include behaviours (such as staff assaults and possession of weapon other than aggression. The present study however focused on aggressive behaviour of inmates within the prison. Aggressive behaviour is characterised by a range of activities such as physical fighting, bullying using dangerous weapons, verbal threat to others and impulsive aggression (Fox & Zawit, 2001). In a study investigating the prediction of rearrests among serious youthful offenders, Lattimore et al. (1995) found that criminal history, and institutional misconduct were the main predictors of re-arrest for a violent offence following release from custody. They also found that general misconduct, threats and other aggressive acts in custody increased an offender's risk of re-arrest. Other

researchers (Andrews & Bonta, 2010) have found that a history of aggressive behaviour is a major predictor of future violence.

Although researchers have found that substance abuse, psychopathy and aggression are associated with recidivism among male prison inmates, none of these studies have compared these three psychological factors between recidivists and non-recidivists. It will be noted that not all prisoners who are re-arrested abuse substances, are psychopaths or exhibit aggressive behaviours. It is therefore imperative to compare these psychological factors between the recidivist and non-recidivist to provide support to already existing relationships to recidivism. Second, no such study was conducted in a developing country such as Nigeria. Owing to higher rate of recidivism among Nigeria prison inmates, investigating these psychological risk factors to recidivism is paramount for improving the Nigerian criminal justice system. This will not only help to reduce the rate of recidivism among released prisoners but will drastically reduce the rate of violent crime in Nigerian society. The aim of this study, therefore, is to compare recidivist and non-recidivist among Nigerian male prison inmate on measures of substance abuse, psychopathy and aggression.

It was hypothesized that: (1) There will be a significant difference between recidivist and non-recidivist on substance abuse. (2) There will be a significant difference between recidivist and non-recidivist on measures of psychopathy. (3) There will be a significant difference between recidivist and non-recidivist on measures of aggression (physical aggression, verbal aggression, anger and hostility).

Method

Participants

Participants were two hundred and fifty five (255) male prison inmates from the Nigerian prisons in Enugu state. Their age ranges from 18 to 45 years with a mean age of 27.95 years ($SD = 5.38$). Two hundred and twenty six (226) inmates were awaiting trial while twenty eight (28) were convicted criminals.

Measures

The Drug Abuse Screening Test (DAST) (Skinner, 1982)

The DAST is a 28-item self-report measure developed by Skinner (1982) and designed to measure problematic substance use that is utilized for clinical screening and treatment/evaluation research. The DAST scale is scored as a binary yes/no response with the total scores ranging from 0 to 28. A score of "1" is given for each YES response, except for items 4, 5, and 7, for which a NO response is given a score of "1." Based on data from a heterogeneous clinical patient population, cut-off scores of 6 through 11 are appropriate for screening for substance use disorders. However, in this study, the norms provided will not be used since the variable is continuous. Hence in this study, the higher the scores, the higher the substance abuse. The DAST had good internal consistency reliability, Cronbach's α of .94 (Staley & El-Guebaly, 1990) and has been found to be a sensitive screening instrument for the abuse of drugs other than alcohol. For the present study, the internal consistency coefficients of the DAST was an α of .78.

Levenson's Self-Report Psychopathy Scale (Levenson, Kiehl, & Fitzpatrick, 1995).

The Levenson's et al 1995, Self-Report Psychopathy Scale is a 26-item scale that is designed to measure primary and secondary sub-dimensions of psychopathy. The primary subscale has 16 items and assesses features such as "an inclination to lie, lack of remorse, callousness, manipulateness" (Levenson et al., 1995, p.152), while the secondary subscale has 10-item that measures

“impulsivity, intolerance of frustration, quick-temperedness, and lack of long-term goals” (p.152). Participants rates their responses on a four-point likert scale of 1= disagree strongly, 2 = disagree somewhat, 3 = agree somewhat and 4 = agree strongly. Item 10, 12, 14, 15, 16, 19, and 23 are reversed scored. Each of the items in a subscale is scored to get the total score of the subscale while the total items are summed up to get global psychopathy score. Scores range from 0 - 78 with higher scores indicating higher psychopathic behaviour. Reliability reported by the developers ranged from .59 to .87. Alpha coefficients for primary and secondary psychopathy were α of .82 and α of .63 respectively. For the present study, internal consistency reliability for primary and secondary psychopathy subscale were α of .82 and .79, respectively.

The Buss and Perry's (1992) Aggression Questionnaire

The Buss and Perry (1992) Aggression Questionnaire is a 29-item scale that measure four aspects of human aggression. It consists of 4 subscales that assess physical aggression (nine items), verbal aggression (five items), anger (Seven items) and hostility (eight items). Participants were asked to rate in a 5-point likert ranging from 1 = extremely uncharacteristic of me to 5 = extremely characteristic of me. All the items have direct scoring and yields a minimum score of 29 points and a maximum score of 145 with higher scores indicating higher aggressive behaviour. The internal consistency coefficients, Cronbach's α of each of the four subscales were as reported by the developers as .85 (Physical Aggression), .72 (Verbal Aggression), .83 (Anger) and .77 (Hostility), with α of the entire scale being .89. Test-retest reliability (nine weeks) for the subscales and total score ranged from $r = .72$ to $.80$ (Buss & Perry, 1992). For the present study,

the item analysis yielded a Cronbach's α of .83 for the entire scale, and .74 (physical aggression), .73 (verbal aggression, .74 (anger) and .87 (hostility).

Recidivism Measure

Recidivism was assessed by asking respondents how many times they have been rearrested and being put into prison. Most research on recidivism are frequently measured based on constructing the item into a simple dichotomy of re-offense/ no re-offense, rearrests, reconvictions, and re-imprisonments (Armstrong & McNeill, 2012; Harris et al., 2009; Lyman & LoBuglio, 2006).

Procedure

The study was approved by the Controller, Nigerian Prisons Service, Enugu. Participants who gave their oral consent to participate in the study were recruited. Two research assistants helped to administer the questionnaires to the respondents. A total of three hundred questionnaires was administered to the volunteer inmates in groups within a period of 2 weeks. They were requested to be honest responses to the questionnaires as their responses will not be used to incriminate them. Of the three hundred questionnaires distributed, 278 was recovered making it 92.67% return rate. Twenty three questionnaires were discarded due to incomplete and incorrect item responses while 255 completed questionnaires were used for data analysis.

Design/Statistics

The design is a cross-sectional research design. The data was analysed with SPSS version 20. Independent samples t-test was used to test the hypotheses.

Results

Table 1. Demographics and characteristics of the study population

Variables	Frequency	Percentage	Mean (SD)
Sample Size	255		
Age	18-45yrs		28.57 (5.38)
Marital Status			
Single	181	71%	
Married	74	9%	
Education			
Primary	8	3.1%	
Secondary	192	75.3%	
Tertiary	55	21.6%	
Offence Committed			
Armed robbery	70	27.5%	
Stealing	81	31.8%	
Murder	31	12.7%	
Kidnapping	4	1.6%	
Fighting	6	2.4%	
Rape/Assault	49	19.2%	
Burglary/Arson	14	5.5%	
Prison Status			
Awaiting Trial	226	89%	
Convicted persons	28	11%	
Years in Prison	1 to 12 years		3.21 (2.62)

Table 2: Independent sampled t-test for recidivist and non-recidivist on the outcome measures

Variables	Groups	N	Mean	SD	Mean Df	T-test	df
Substance abuse	Non-Recidivist	196	11.99	5.93	-2.76	-3.21**	253
	Recidivist	59	14.79	2.60			
Primary PsyP.	Non-Recidivist	196	47.66	6.36	-.39	-.43	253
	Recidivist	59	48.06	6.11			
Secondary PsyP.	Non-Recidivist	196	28.45	3.52	-2.45	-3.79***	253
	Recidivist	59	28.90	4.31			
Physical Agg.	Non-Recidivist	196	24.25	4.65	-.42	-.59	253
	Recidivist	59	24.67	5.13			
Verbal Agg.	Non-Recidivist	196	15.46	4.02	-1.55	-2.68**	253
	Recidivist	59	17.01	3.43			
Anger	Non-Recidivist	196	17.62	4.37	.05	.08	253
	Recidivist	59	17.82	3.55			
Hostility	Non-Recidivist	196	23.97	6.62	-2.39	-2.51*	253
	Recidivist	59	26.37	5.59			

Note. * $p < .05$; ** $p < .01$; *** $p < .001$; PsyP = Psychopathy, Agg = Aggression

The results of in table 2 showed that there was a significant difference between non-recidivists and recidivists in substance abuse $t(253) = -3.21, p < .01$ suggesting that inmates that are non-recidivists ($M = 11.99, SD = 5.93, N = 196$) showed lower substance abuse compared to the recidivist ($M = 14.79, SD = 2.60, N = 59$).

Similarly, the result showed that there was a significant difference between non-recidivist and recidivist on secondary psychopathy $t(253) = -2.43, p < .001$ indicating that inmates who were non-recidivists ($M = 26.45, SD = 3.52, N = 196$) had lower secondary psychopathy compared to the recidivists ($M = 28.90, SD = 4.31, N = 59$). There was no significant difference between non-recidivists and recidivists on primary psychopathy.

For the four dimensions of aggression, the study found a significant difference between non-recidivist and recidivist on the two dimensions (verbal aggression and hostility) but not for physical aggression and anger. Specifically, there was a significant difference between non-recidivists and recidivists on verbal aggression, $t(253) = -1.55, p < .01$ indicating that inmates who are non-recidivist ($M = 15.46, SD = 4.02, N = 196$) had lower verbal compared to the recidivist ($M = 17.01, SD = 3.43, N = 59$). Similarly, there was a significant difference between non-recidivists and recidivists on hostility $t(253) = -2.39, p < .05$ indicating that inmates that are non-recidivists ($M = 23.97, SD = 6.67, N = 196$) had hostility psychopathy compared to the recidivists ($M = 26.37, SD = 5.59, N = 59$).

Discussion

The study investigated the difference between recidivists and non-recidivists on substance abuse, psychopathy and aggression. In line with the study's hypothesis, it was found that recidivists had higher substance abuse compared to non-recidivists. This finding is in line with previous studies (Beck, 2000; Phillips, 2010) which found that male prison inmates who recidivates abuse more substance than non-recidivist. Other studies (Nelson et al., 1999) have found that substance abuse is the strongest risk factor for re-entry into prison after some days of release.

In addition, the study found that inmates who are recidivist have higher secondary psychopathy compared to non-recidivist. This is consistent with previous studies (Hart, Kropp, & Hare, 1988; Serin, Peters, & Barbaree, 1991) which found that inmates who psychopaths are more likely to be re-arrested than non-psychopaths. Similarly, meta-analytic studies (Salekin et al., 1996) have shown that psychopathy was a strong predictor of recidivism among male inmates. The relationship between psychopathy and recidivism seems unsurprising due to the characteristics of psychopathy such as consistent disregard for

social norms and conventions, impulsivity, and irresponsibility; lack of empathy, remorse and emotional depth (Hare, 1991). According to Wallace, Schmitt, Vitale and Newman (2000) psychopathic individuals rare re-arrested for offences partly because they commit more than twice as many crimes compared with their non-psychopathic counterparts.

There was a significant difference between recidivists and non-recidivists on aggression, specifically on verbal aggression and hostility. Studies in the area focused on prison misconduct as one of the major factors in inmate's recidivism (Heil et al., 2009; Lattimore et al., 1995). Regarding aggression-recidivism relationship, Andrews and Bonta, (2010) found that a history of aggressive behaviour was the main predictor of future violence among inmates. This suggests that inmates who display aggressive behaviour are likely to be re-arrested compared to inmates that do not have aggressive tendencies.

The findings in this study have implications for criminal justice system particularly in the psychological management of inmates with high rates of recidivism. One of the major aims of criminal justice system is to reduce recidivism among inmates. Since these psychological factors (substance abuse, psychopathy and aggression) had been associated with violent recidivism, the need for psychological intervention is underscored. Thus, inclusion of psychological intervention designed for management of individuals with substance use problem, psychopathy and aggressive tendencies. These psychological interventions could be incorporated in Nigerian prison services as this will greatly reduce the rate of recidivism found among Nigerian male person inmates. It should be noted that psychological management of inmates with these psychological problems may not be achieved without proper psychological assessment of inmates in need of intervention. Hence, the need to incorporate psychological assessment of inmates in need of help. In the light of the above, more trained clinical psychologists should be employed to help inmates with such problems.

Although the findings of this study have important implications for Nigerian criminal justice system, several limitations are worth mentioning. First, the study was conducted among male prison inmates. This could be explained in terms of presence of more male in Nigerian prison services compared to female, but future studies could replicate the study including female inmates. Second, the study adopted cross-sectional research design that has inherent weakness in terms of establishing causality. Future studies could use longitudinal design in which inmates released from the prisons are followed for a period to ascertain their recidivism rate and factors that could result in violent recidivism.

Conclusion

The study investigated the difference between recidivists and non-recidivists on substance abuse, psychopathy and aggression. It was hypothesized that there would be a significant difference between recidivists and non-recidivists on substance abuse, psychopathy and aggression. It was found that recidivist had greater substance abuse problem, reported higher psychopathic traits and greater aggressive behaviours compared to non-recidivists. This study adds to previous studies as well as provides some relevant information for the Nigerian criminal justice system. It was suggested that psychological interventions aimed at managing prison inmates with substance abuse, psychopathic tendencies and aggressive behaviours should be incorporate in the Nigerian prison system as this will greatly reduce the rate of recidivism among prison inmates.

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