

PERCEIVED CORRECTIONAL ENVIRONMENT AND AGGRESSION ON VIOLENT BEHAVIORS AMONG INMATES IN RIVERS STATE

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ABSTRACT

Violence behavior among inmates in correctional facilities is a significant problem in many countries around the world. Studies linking perceived correctional environment and aggression on violent behavior among inmates tend to be lacking. Therefore, this study examines the predictive role of perceived correctional environment and aggression on violent behavior among inmates in correctional facilities in Rivers State, Nigeria. Cross-sectional survey design was adopted while purposive sampling technique was used to select one correctional facility in Rivers State. A convenience sampling method was used to collect data from 223 inmates using validated questionnaires and analyzed using multiple regression statistics to test one hypothesis which was accepted at $p < .001$ level of significance. The results demonstrated that perceived correctional environment and aggression jointly predicted violent behavior among study participants $R^2 = .466$, $F(2, 220) = 105.83$, $p < .001$. Furthermore, perceived correctional environment ($\beta = .466$, $p < .001$) and aggression ($\beta = .370$, $p < .001$) independently predicted violent behavior among study participants. The study concludes that perceived correctional environment and aggression are good predictors of violent behavior among inmates. It recommends that the correctional authority and other stakeholders should improve correctional facilities to make them reformatory rather than punitive to reduce aggression and violent behavior.

1. INTRODUCTION

Violent behavior refers to actions that involve the use of physical force with the intention of causing harm, injury, or damage to another person or object (Awopetu & Igbo, 2015). Its causes include biological, environmental, and social factors and take different forms such as physical assault, verbal threats, destruction of property, and use of weapons (Bushman & Anderson, 2007). In Nigeria as in many parts of the developing countries, correctional environments have been observed to be an inhumane place where individuals are kept for several reasons by the state pending the determinations of their offences (Nigerian Prison Service, 2020). Some factors have been identified as potential predictors of violent behavior among inmates in correctional

facilities. These factors include personal traits (e.g., impulsivity, anger, previous criminal history), social dynamics within the correctional facilities (e.g., gang affiliations, power differentials, inmate hierarchy), and environmental factors (e.g., overcrowding, lack of meaningful activities, inadequate staff supervision) [John, 2023]. However, in this study, perceived correctional environment and aggression were investigated

Perceived correctional environment refers to an inmate's subjective perception of the correctional facility. The correctional environment is a unique setting where inmates are confined for long periods of time. It is characterized by lack of freedom and privacy. The environment is often violent and can be psychologically and physically harmful to inmates. In addition, correctional facilities are usually overcrowded and underfunded which exacerbates problems in the environment (Olabamiji, 2025). The correctional environment affects the behavior of inmates and influences their likelihood of engaging in violent behavior. Studies have shown that inmates who perceive their environment to be unsafe, hostile, and lacking in freedom are more likely to engage in violent behavior (John, 2023). In addition, Walder (2004) who examined the relationship between perceived correctional environment and violent behavior among samples of inmates in correctional facilities found a significant positive relationship between negative perceptions of the correctional environment and levels of aggression among inmates. Furthermore, the study identified specific aspects of the correctional environment such as overcrowding and lack of safety measures as the major predictors of violent behavior among study participants. These findings highlight the importance of addressing environmental factors in efforts to reduce aggression and violence within correctional facilities. A study on prison overcrowding in Ado-Ekiti found a high prevalence of violent behavior among inmates (Olabamiji, 2025). Davies (2009) explored the effects of perceived correctional environment, aggression, and violent behavior among inmates in a correctional facility and found that negative perceptions of the correctional environment were associated with increased aggression, and individual factors such as prior history of violence and gang affiliations significantly mediated this relationship.

Aggression is the second factor considered in this study as a predictor of violent behavior among inmates in the correctional facilities. Aggression is defined as any behavior that is intended to harm another person and it can be verbal or physical (Breuer & Elson, 2017). Inmates display aggression as a way of coping with the stress and frustration of being in correctional facilities. Aggression could be directed towards other inmates, correctional staff, or even towards oneself. Inmates in correctional facilities engage in a wide range of aggressive behavior such as violence towards others, suicides, suicidal attempts, deliberate self-harm, substance use, etc., resulted to deaths, injuries to self or others (Favril et al., 2020). Some studies have been conducted on the effects of aggression on violent behavior among inmates in correctional facilities with varied results. For example, John (2023) found aggression to predict violent behavior among inmates in Nigerian correctional centers. In addition, Yusuf (2016) found as high as 89% of correctional facilities to be full of aggressive inmates. In addition, Bushman and Anderson (2007) found aggressive behavior to occur consistently among 4262 inmates across 54 studies analyzed. In another study, Archer (2007) found physical aggression (bullying) to be more common among the inmates. Another highly reported type of aggressive behavior among correctional facilities inmates was verbal abuse where inmates were found to rain/raise all forms of abuse on one another at the slightest provocation (Archer et al., 2007). Moreover, Jordaan and Hesselink (2021) in a longitudinal study on the long-term effects of the perceived correctional environment on aggressive behavior and violent incidents among inmates found persistent negative perceptions of the correctional environment to be associated with a higher likelihood of engaging

in violent behavior over time. Finally, inmates in correctional facilities were found to engage often in physical fighting with one another (John, 2023).

Violence behavior among inmates in correctional facilities is a significant problem in many countries around the world. While some studies have investigated the relationship among perceived correctional environment, aggression and violent behavior among inmates, studies that investigated these constructs in the Rivers State correctional facilities where violent behavior among inmates have been reported frequently are lacking, thus leaving gaps in knowledge to be filled. Therefore, the purpose of this study was to examine perceived correctional environment and aggression on violent behavior among inmates in correctional facilities in Rivers State, Nigeria. The study seeks to answer this question: Would perceived correctional environment and aggression jointly and independently predict violent behavior among inmates in correctional facilities in Rivers State, Nigeria? . The findings of this study would be useful for correctional facility administrators, policymakers, and researchers interested in understanding the contributions of perceived correctional environment and aggression on violence behavior among inmates in correctional facilities in Rivers State.

2. Theoretical Review

Some theories were used to anchor this study. First is the Bandura (1997)'s Social Learning Theory which posits that individuals learn behaviors through observation, modeling, and reinforcement. In the context of the correctional facilities environment, this theory suggests that aggressive behavior may be acquired by observing and imitating violent acts witnessed within the correctional facilities setting. Additionally, the theory proposes that reinforcement of aggressive behavior such as increased status or protection, may further contribute to the development and perpetuation of violence among inmates.

The second theory is the deprivation theory which suggests that the correctional facilities environment, characterized by restricted freedoms, limited resources, and social isolation, can lead to various forms of deprivation, including the deprivation of autonomy, security, and meaningful social interactions (Koehler, 2024). Such deprivation can create a hostile and stressful environment, increasing the likelihood of aggression and violent behavior among inmates.

Finally, the importation theory which explains that individual characteristics and experiences prior to incarceration such as pre-existing violent tendencies, gang affiliations, or exposure to violence, are "imported" into the correctional facilities environment (Fitz et al., 2018). These pre-existing factors can significantly influence an inmate's propensity for aggression and violent behavior within the correctional facilities setting.

The hypothesis tested was: Would perceived correctional environment and aggression jointly and independently predict violent behavior among inmates?

3. Method

Research Design

The study adopted a cross-sectional survey design method and used validated questionnaires for data collection. Perceived correctional environment and aggression were independent variables while violent behavior was the dependent variable. The study was conducted among inmates in the Maximum Security/Custodial Correctional Centre in Port Harcourt, Rivers State.

Population of the Study

A total number of 2000 inmates were recorded by the management of Port Harcourt Maximum Security Custodial Center as at the time of data collection.

Sample Size Determination and Sampling Technique

Yamane (1973) sample size formula was used to calculate the sample size which arrived at 205 with a 10% mark up to give 225. Because of the nature of the study population, convenience sampling technique was considered appropriate for the selection of the study participants used for the distribution of questionnaires.

Instruments

Correctional Facilities Adjusted Measure of Aggression (PAMA, Kerekes et al., 2018) is a 10-item scale used to measure aggressive behavior among study participants. The scale was rated on a 6-point Likert's format ranging from 0=no occurrence, 1= one event, 2= two to three events, 3= four to nine events, ten or more events, 5= more events than I can count. Sample items include: "I have been involved in fights with people" and "Have been in verbal conflicts, quarrels or shouted at other people". Authors obtained overall Cronbach $\alpha = .94$, and in this study, Cronbach $\alpha = .87$ was obtained.

Perceived Correctional Environment Questionnaire (Bosma et al., 2020) was used to assess three aspects of perceived correctional facilities environment: relationships, safety and order, and contacts with outside world of the study participants. The 28-item was rated on a 5 point Likert's format ranging from strongly agree to strongly disagree. Sample items include: "Correctional facilities here are considerate of each other", "I am afraid of some fellow correctional facilities", and " My visitor and I can have enough physical contact (e.g., give each other a hug) during the visiting hours in this institution". Authors obtained Cronbach $\alpha = .92$, and in this study, Cronbach $\alpha = .89$ was obtained.

Aggression Scale (Opinas & Frankowski, 2001) was used to determine violent behavior among study participants(inmates). It has 11 items rated on 7-point Likert's format ranging from 0 time to 6 or more times. Sample items include: "During the last 7 days: I have thrown something at someone" and "I have slapped or kicked someone". The authors obtained Cronbach' $\alpha = .88$, and in this study Cronbach's $\alpha = .82$ was obtained.

Procedure

A formal letter of introduction was obtained from the Department of Psychology, Rivers State University, Nkpolu-Oroworukwo to obtain permission from the Correctional Facility Authority. Based on the approval , the researchers were scheduled to have two sessions with the potential participants where the purpose of the study was explained to them and their consent to participate in the study was sought and obtained. They were informed that participants in the study were voluntary and that they can opt out at any time they feel doing so. In addition, they were assured of confidentiality of their responses. Only those who agreed to participate in the study were given the questionnaires which took less than 16 minutes to complete. A total of 227 questionnaires were distributed and collected on the spot, however, during screening and coding, four questionnaires had inconsistent responses and were removed thus leaving 223 used in the analysis.

Ethical Consideration

Due diligence was followed as concerned research with human participants. Consent from the authority and the inmates were sought and obtained. The principle of voluntarism was strictly followed. No incriminating data were obtained. Confidentiality of the responses were assured and maintained during and after data collection.

Data Analysis

IBM^R SPSS version 26 was used for data analysis. Both descriptive and inferential statistics were computed. Hypothesis one was tested using multiple regression analysis while hypothesis

two was tested using independent sample t-test. All hypotheses were accepted at $p < .001$ level of significance.

4. Result and Discussion

Participants demographics

Table 1: Demographic characteristics of participants

Variables	Frequency	Percent
Gender		
Male	125	56
Female	98	44
Age		
Below 29 yrs	47	21
30-39 yrs	38	17
40-49 yrs	49	22
50-59 yrs	40	18
Above 60 yrs	49	22
Marital Status		
Single	107	48
Married	62	28
Separated	54	24
Religious Affiliation		
Christian	94	42
Muslim	60	27
Traditionalist	69	31
Educational Qualification		
School Certificate holders	98	44
National Diploma holders	81	36
Graduates	42	19
Duration of Stay		
Below 10 yrs	36	16
11-19 yrs	85	38
20-29 yrs	62	28
Above 30 yrs	36	16
Total	223	100

Sources: Authors Fieldwork (2023)

According to Table 1, more participants (56)% were males, with a little more participants (22%) being within the 40 and 49 age bracket and 48% were single(unmarried). In addition, the data showed that more participants (44%) were school certificate holders while 38% of the participants had been in detention for between 11 and 19 years.

Table 2: Mean statistics of violent behavior based on gender

Gender	N	Mean	Mean Diff	Std. Dev
Male	125	53.92	10.27	5.41
Female	98	43.65		6.25
Total	223	49.03		7.79

Sources: Authors Fieldwork (2023)

Table 2. shows the group statistics of violent behavior among inmates in correctional facilities in Port Harcourt, Rivers State based on gender. It shows that the mean for violent behavior of male inmates was 53.92 with SD of 5.41 compared to the female inmates with the mean of 43.65 and SD of 6.25 leading to a mean difference of 10.27. The mean violent behavior was higher among male inmates than female inmates.

Testing the hypothesis

H1: Perceived correctional environment and aggression would jointly and independently predict violent behavior among correctional facilities inmates in Port Harcourt, Rivers State. The hypothesis was tested using multiple regression and the results are presented in Tables 3a, b, & c.

Table 3a: Model Summary of perceived correctional environment and aggression towards violent behavior

Model Summary ^a					
Model	R	R ²	Adjusted Square	R	Std. Error of the Estimate
	.879 ^a	.773	.721		5.93940

a. Predictors : (Constant), perceived correctional environment, aggression

Table 3b: ANOVA of perceived correctional environment and aggression on violent behavior

Model	Sum of Squares	df	Mean Square	F	p
Regression	6970.46	2	3485.23	105.83	.000
Residual	8136.35	220	32.94		
Total	15106.80	222			

Table 1c: Multiple regression on perceived correctional facilities environment and aggression on violent behavior among study participants

Model	Unstandardized Coefficients		Standardized Coefficients	t	p.
	B	Std. Error	β		
(Constant)	5.900	3.009		1.961	.051
Perceived correctional environment	.604	.064	.466	9.467	.000
Aggression	.338	.045	.370	7.518	.000

* $p < .001$ level of significance

Table 3a-c indicates multiple regression analysis of the joint and independent predictors of violent behavior among inmates in correctional facilities in Port Harcourt, Rivers State. The result indicated that perceived correctional environment and aggression jointly predicted violent behavior among study participants $R^2 = .773$, $F(2, 220) = 105.83$, $p < .001$ which accounted for 77.3% of the variance of violent behavior. Furthermore, the result demonstrated that perceived correctional environment ($\beta = .466$, $t = 7.518$, $p < .001$) and aggression ($\beta = .370$, $t = 9.467$, $p < .001$) independently predicted violent behavior among study participants. Therefore, the hypothesis was supported.

Discussion

The result supports the hypothesis that perceived correctional environment and aggression would jointly predict violent behavior among inmates in correctional facilities in Rivers State, Nigeria. The environment inmates found themselves contributed to the level of aggressions they displayed which leads to the levels of violence demonstrated by them. In addition, perceived correctional environment and aggression independently predict violent behavior among study participants. This means that an inmate who perceived the correctional environment as harsh and unfriendly tends to be aggressive which transfers to violent behavior either to oneself or the other inmates around even to the physical environment. These findings corroborated previous studies that individuals found in a confined environment without comfort and freedom would be aggressive and violent (Awopetu & Igbo, 2015; Favril et al., 2020; John, 2023). Furthermore, the finding supports the result obtained by Olabamiji (2025) who found that inmates caused violent behavior when they perceived correctional environments to be unfriendly and hostile thus causing more aggression and violent behavior

5. Conclusion

The study supports the hypothesis that perceived correctional environment and aggression are excellent predictors of violent behavior among study participants. The study recommends decongestion of the correctional facilities, provision of adequate infrastructure such as beddings and recreational facilities to improve the well-being of the inmates, and provision of educational facilities to empower them for life after their stays. Finally, budgetary allocations to the correctional facilities services should be supervised to ensure implementation of the projects it was meant for.

Limitations of the Study

The study has some limitations. Data were collected using self-reported questionnaires which were not free of social desirability. Further study would benefit from group discussion and documentary evidence from correctional facility authority. Second, the study was carried out in one correctional facility in Rivers State with a sample size of 223 hindering generalization of the study findings. Further study would benefit by including more correctional facilities and sample size to allow for the generalization of the study findings. Finally, cross-sectional survey design was adopted which reduced the external validity. Further study should adopt longitudinal design to collect data over time.

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