

NIGERIAN JOURNAL OF PSYCHOLOGY

Volume 22, No.1, 2022 ISSN 0331-0574 (Print), 2635-3806 (Online)

Published by the Nigerian Psychological Association

NPA JOURNALS - www.npa-journals.org

FACTOR STRUCTURE OF THE HARE PSYCHOPATHY CHECKLIST (2nd ed. –R) FOR THE ASSESSMENT OF PSYCHOPATHY BEHAVIOUR IN NIGERIA

Ibrahim Ignatius Felix Ruwan
Musa Yusuf Garba

ARTICLE INFO

Article history:

Received: 10th June, 2022

Revised: 11th July, 2022

Accepted: 18th July, 2022

Authors' Affiliation:

Department of Psychology,
Nigerian Defence Academy, Kaduna.

Correspondence:

ruwanfelix@gmail.com

Keywords:

Factor-structure,
Prison,,
Hare
PCL-R,
Psychopathy

ABSTRACT

Since the last decades till today, there has been a report of rapid growth in the literature on the PCL-R which points in support of the 2-factor model of Psychopathy. However other climes like North America studies have indicated a 3-factor and 4-factor models of the PCL-R. This study examined the factor structure of the Hare psychopathy checklist (PCL-R) 2nd edition amongst Prison and non-prison populations in Kaduna State-Nigeria. A survey design was used to obtain data on the participants from the communities and correctional settings. Participants were selected through cluster and simple random sampling techniques. Data were analyzed using factor analysis. The analysis of factor structure results replicated the 2-factor solutions of previous studies. The results indicated an 18-items, 2-factor structure with 4-facets of the Hare PCL-R 2nd edition as a measure of psychopathy in Nigeria. Therefore, it is recommended that Researchers, Forensic and Clinical experts in Nigeria may wish to work with the 18-items, 2-factors and 4-facets PCL-R as a reliable measure of Psychopathy for the assessment of Psychopathic traits and other violent criminal tendencies in Nigeria.

Introduction

Psychopathy is defined by the Psychopathy Checklist Revised (PCL-R) as a cluster of interpersonal (e.g., manipulative), affective (e.g., lack of empathy), behavioural (e.g., parasitic lifestyle), and antisocial (e.g., criminal versatility) items (Hare, 1991). Even though the PCL-R was not designed as a risk or recidivism measure, considerable research reveals that the PCL-R is a strong predictor of violence across diverse populations (e.g., correctional violent offenders, forensic psychiatric patients, sexual offenders, community substance abusers) and across different countries. Higher scores on the PCL-R are also related to several other negative outcomes such as engagement in instrumental (e.g., aggression that is proactive and oriented by an external goal) and reactive aggression (i.e., aggression resulting from an emotional response to a threat or provocation), sexual offending, domestic violence, substance abuse, and treatment dropout (PCL-R; Hare 1991, 2003). People with these traits and behaviour are often described as deceptive, impulsive, irresponsible, manipulative, callous and glib. They have poor behavioural control and lack of sense of empathy or guilt, have a callous disregard for other rights, are sexually promiscuous, have a shallow affect and are constantly looking for stimulation; they are often described as being unethical, as they frequently engage in antisocial behaviour (Hare & Login, 2009). A psychopath has been adduced to any person who has received a score of 30 or more on the PCL-R. The term is not meant as a way to label or stigmatize any group; instead, it is solely used as a succinct way to describe common traits or characteristics found in people who have scored 30 or above on the PCL-R scale. The Psychopathy Checklist-Revised (PCL-R) is an important measure in both applied and research settings. Evidence for its validity is mostly derived from male Caucasian participants. PCL-R ratings of 359 Caucasian and 356 African American participants were compared using confirmatory factor analysis (CFA) and item response theory (IRT) analyses. Already, some previous studies from other climates have revealed that 13 items of the PCL-R have

been used to describe a 3-factor hierarchical model. This model was replicated in the Caucasian sample. No cross-group difference in factor structure was found using CFA; the structure of psychopathy is the same in both groups. IRT methods indicated a significant but little difference in the performance of 5 of the 20 PCL-R items. No significant differential test functioning was found, indicating that the item differences cancelled each other out. The study finally concluded that the PCL-R can be used with African American participants in an unbiased way. Psychopathy entails a constellation of personality traits and behaviours with interpersonal, affective, behavioural, and antisocial components. The PCL-R consists of 20 items scored on a 3-point scale (0, 1, 2) resulting in a total dimensional score ranging from 0 to 40. Higher scores are indicative of more psychopathic features.

Research into the factor structure of the PCL-R originally described a two-factor model: Factor 1 (interpersonal and affective) and Factor 2 (lifestyle and antisocial) and alpha coefficients for the total score, Factor 1, and Factor 2 were compared with those obtained in the standardization sample of a total score, $\alpha = .88$; Factor 1, $\alpha = .73$; Factor 2, $\alpha = .79$ (PCL-R; Hare 1991, 2003). More recently, the items of the PCL-R have been found to form 2 factors and 4 facets: interpersonal, affective, lifestyle, and antisocial. The four-facet solution has received ample support from subsequent research (Babiak, 2010; Weaver et al. 2006). It should be noted that a three-factor model (excluding the antisocial facet) for the PCL-R is also empirically defensible. In the same light Salekin et al (1997) also reported a PCL-R 2-factor structure and observed that it remained consistent with factor 1, being personality-based and factor 2 is behavioural based.

Newman and Smith (1990) reported a sample of 384 incarcerated inmates at an American medium-security prison and found that participants correlated -0.47 , -0.2 , and -0.62 with PCL-R total factor 1 and factor 2 scores. Salekin & Rogers (2008) described the personality characteristics of psychopathy to include charisma, to be domineering and

egocentricity, as well as being indifferent and deliberate in the exploitation of others. The characteristics of psychopathy are more violent toward others with less empathy. Hare, (1991) has devised a two-factor model for assessing psychopathy. It is important for us to briefly explore Hare's (1991) two-factor model, as it will allow us to gain further insight into characteristics associated with psychopathy. Factor one represents the interpersonal/affective domain, such as empathy and manipulation. Factor two focuses on lifestyles/anti-social domains, such as impulsivity and criminality. The personality profile of a psychopath is usually found to contain interpersonal descriptors such as being dominant and hostile and trait descriptors such as low agreeableness. A commonality in these descriptors is a lack of inhibition. The hostility, aggressiveness, and excitement seeking found in psychopathy all lead to the triggering of unacceptable behaviour.

Psychopathy theories explain the aetiology and development of Psychopathic tendencies in people. Among the theories are the Neurological and Brain Imaging theory of Psychopathy which assert that there are some neurologic and brain impairments that are responsible for Psychopathy behaviour amongst individuals in the society (Weis, 1983). In fact, in a study conducted by Intrator, Hare, Stirszke, and Brichtswein (1997), which truly revealed the difference in the brain cerebral cortex of psychopaths and non-psychopath, they used the Single Photon Emission Computed Tomography (SPECT) to analyze the blood flow in the brain of psychopaths and participants were assigned a standard task of emotional neural words to perform. Results stated that the cerebral cortex of psychopaths revealed less activity and that activation was largely around the occipital cortex whereas the brain of non-psychopath revealed much more activity in their cerebral cortex. The developmental theory of Psychopathy asserts that the trait and behaviour that defines adult Psychopathy begin to manifest themselves in childhood and persist throughout much of the life-span (Fredrick & Hare, 2001; Lahey, Hart, Pliszka, Applegate & McBunnet,

1993; Lynam, 1996; McBunnet Piffner, 1998; Moffit, 1993; Robbins, 1996). Studies on those children who throw tantrums (violent anger) if not properly modified can degenerate to exhibiting oppositional defiant disorder (ODD) and may also result in attention deficit hyperactivity disorder (ADHD), conduct disorder (CD) and eventually lead to violent criminal behaviour of Psychopathy (Moffit, 1993). Research has also revealed that it may be possible to differentiate between children who appear to be at high risk for developing psychopathic tendencies and other children who indicate severe emotional and behavioural problems specifically those children diagnosed with conduct disorder, attention deficit hyperactivity disorder and oppositional defiant disorder (Frick, 1998; Frick & Hare, 2001; McBunnet & Piffner, 1998; Lynam, 1996) The combination of conduct disorder and attention deficit hyperactivity disorder may be in some cases an important risk factor for adult psychopathy (Lynam, 1996; McBride, 1998). Studies also revealed that abused and neglected children especially during early childhood have shown that children who are maltreated are vulnerable to developing psychopathy. For example, Wisdom (1998) found that both men and women who were abused or neglected as children were more likely to develop an antisocial personality disorder.

Most Studies on PCL or its use of it have been majorly European and American and some parts of the Arab countries. There have been differences regarding factor structures across climes. The use of the PCL-R and its factor structure in the determination of psychopathic behaviour is yet to be systematically explored in other parts of the world such as Africa and especially Nigeria. This study, therefore, aims in determining the factor structure of the Hare psychopathy checklist revised (PCL-R) 2nd edition for the assessment of psychopathy behaviour among prison and non-prison populations in Nigeria. The study also hypothesized that there will be a statistically significant difference in the factor structure of the Hare PCL-R 2nd edition in Nigeria and that of the Euro-American studies.

Methods

The study adopted a survey as its design. The Population for the Study was comprised of 384 Prison and Non-Prison populations in Kaduna State-Nigeria. Participants were recruited through simple randomization sampling techniques. The instrument for determination of the factor structure is the Hare Psychopathic Checklist-Revised (PCL-R) 2nd edition and is a diagnostic tool that is used to rate the individual psychopathy or anti-social tendencies. Each item is scored on a 3-point ordinal scale ranging from 0-2 i.e., 0, 1, 2. A score of 0 indicates the absence of symptoms of psychopathy, a score of 1 indicates the possible presence of psychopathy while a score of 2 indicates the definite presence of psychopathy.

The PCL-R scores, ranging from 0-40 on the measure, a cumulative score of 30 and above is considered a conservative cut off for psychopathy.

Results

Table 1: Factor structure for the Assessment of Psychopathy behaviour in Nigeria

PCL-R	Mean	Standard Deviation	Analysis N
Glibness/superficial charm	1.43	.650	384
Grandiose sense of self-worth	1.23	.722	384
Need for stimulation/proneness to boredom	1.16	.810	384
Pathological lying	1.34	.682	384
Conning/manipulative	1.42	.670	384
Lack of remorse or guilt	1.45	.680	384
Shallow affect	1.18	.721	384
Callous/lack of empathy	1.36	.753	384
Parasitic lifestyle	1.11	.663	384
Poor behavioural controls	1.24	.689	384
Promiscuous sexual behavior	.93	.758	384
Early behavioural problems	1.17	.567	384
Lack of realistic, long-term goals	1.28	.685	384
Impulsivity	1.43	.708	384
Irresponsibility	1.41	.671	384
Failure to accept responsibility for own action	1.15	.699	384
Many short-term marital relationships	.46	.707	384
Juvenile Delinquency	.93	.603	384
Revocation of conditional release	.14	.399	384
Criminal versatility	.46	.677	384

The higher the score someone receives, the more psychopathy they exhibit. The items include the behavioural, affective, and interpersonal items thought to characterize psychopathic personality disorder (Cleckley, 1976; Hare, 1991).

The Standardization of the Hare PCL-R 2nd edition was done in Nigeria by Ruwan (2021) to determine the validity and reliability of the instrument on the indigenous population and the result indicated that the reliability statistics of the instrument yielded a Cronbach's alpha value of 0.823 and therefore considered to be significant, indicating that the instrument is dependable to be used as an assessment tool to assess Psychopathy in Nigeria. Factor analysis was used as a statistical tool for the determination of the factor structure of the PCL-R 2nd edition in Nigeria.

Table 1 above presents an initial step of factor analysis and the descriptive statistics of Mean and Standard Deviation scores of each of the 20 PCL-R items on the 384 participants used for the study.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olin Measure of Adequacy.	.843
Approx. Chi-Square	2018.702
Bartlett's Test of Sphericity df	190
Sig.	.000

Source: Field Survey 2021

Table 2 presents the determination of the sampling adequacies of the study which was given by the mean and standard deviation scores, the basis of which the Kaiser-Meyer-Olkin Measure of Sampling Adequacy based, Bartlett's template of Sphericity was used. The KMO Sampling Adequacy was reported as 0.843, P value less than 0.05 ($P < 0.05$) which was significant. This means that the participants were very well selected.

Table 3: Principal Component Analysis of Rotated Component Matrix

PCL-R items	Components	
	1	2
Glibness/superficial charm	.139	.499
Grandiose sense of self-worth	.081	.605
Need for stimulation/proneness to boredom	.404	.046
Pathological lying	.562	.348
Conning/manipulative	.558	.401
Lack of remorse or guilt	.748	.070
Shallow affect	.376	.232
Callous/lack of empathy	.752	.172
Parasitic lifestyle	.159	.441
Poor behavioural controls	.533	.102
Promiscuous sexual behaviour	.133	.567
Early behavioural problems	.332	.556
Lack of realistic, long-term goals	.554	.136
Impulsivity	.730	.001
Irresponsibility	.690	.327
Failure to accept responsibility for own actions	.374	.405
Many short-term marital relationships	.244	.515
Juvenile delinquency	.082	.591
Revocation of conditional release	.294	.129
Criminal versatility	.160	.444

Source: Field Survey 2021

Table 3 presents rotation using the Kaiser Nomenclature method, the Principal Component analysis yielded two of the same factors similar to the original studies. However, the item loading, in this case, provided a different outcome of the principal component analysis when rotated using the very marks of the Kaiser Nomenclature method. Component/factor one (1) yielded nine (9) items namely: need for stimulation/proneness to boredom (0.4), pathological lying (0.5), conning/manipulative (0.5), lack of remorse or guilt (0.7), callous/lack of empathy (0.7), poor behavioural controls (0.5), and lack of realistic long-term goals (0.5), impulsivity (0.7), and irresponsibility (0.6). Factor two (2) also had nine (9) items namely: Glibness /superficial charm (0.4), grandiose sense of self-worth (0.6) many short-term marital relationships (0.5), parasitic life-style (0.4), promiscuous sexual behaviour (0.5), early behavioural problems (0.5), failure to accept responsibility for own actions (0.4) juvenile delinquency (0.5), and criminal versatility (0.4).

Using 0.4 as in the benchmark of the original study, the rotated component matrix isolated nine (09) items for factor one (1) and nine (09) items for factor two (2). The items loaded equally on both component/factor 1 with nine (09) items and also in component/factor 2 with nine (09) items. This result implies that participants manifested both interpersonal, affective, lifestyle and antisocial symptoms of psychopathy. The 2 Factors had nine items each differentiated into 4 Facets as illustrated in figure 1 below.

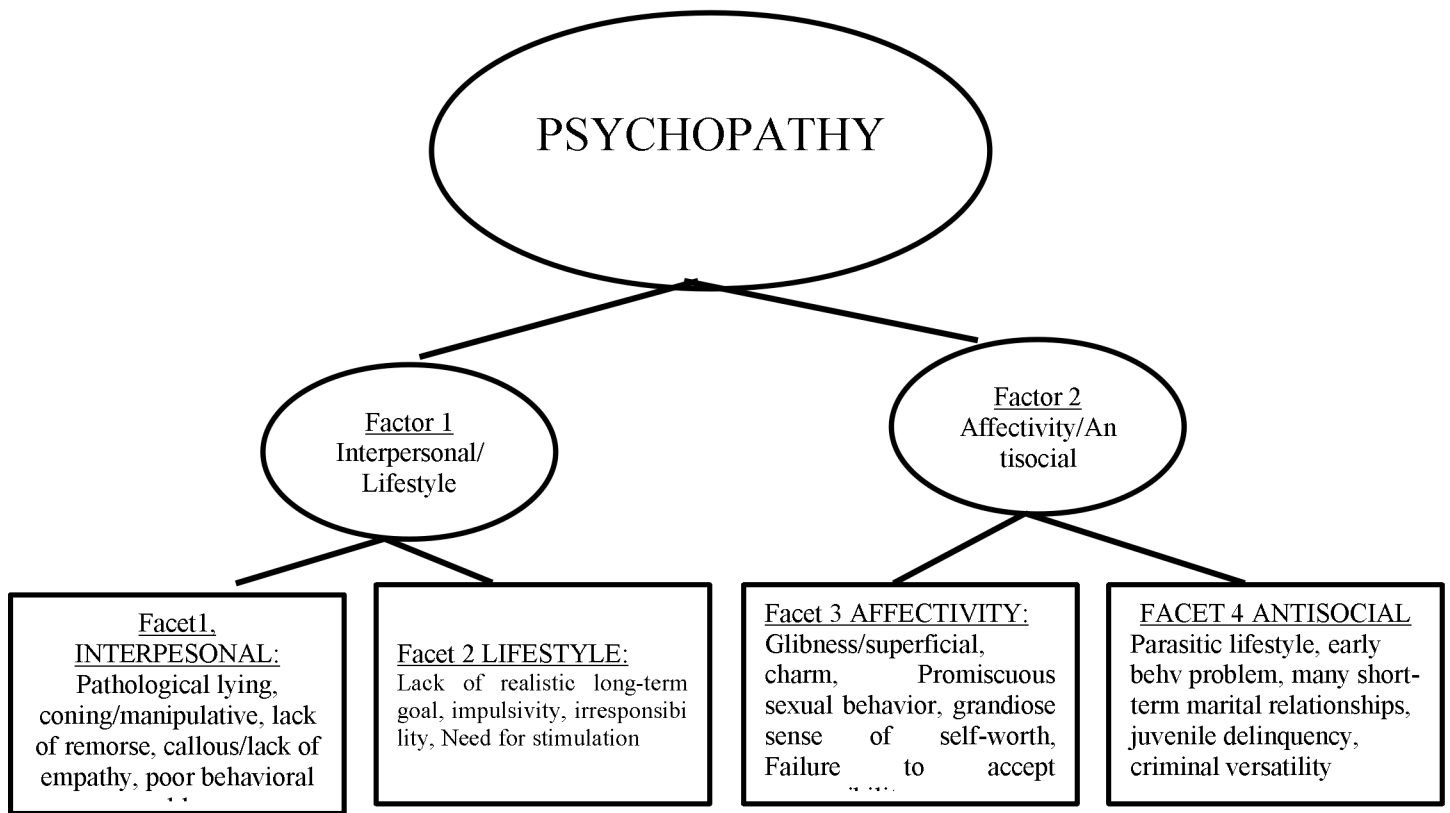


Figure 1 Rotated Component Matrixes

Figure 1 above revealed as thus: Glibness/superficial charm which is a factor one item loaded in factor two (facet 3). Grandiose sense of self-worth which is a factor one item loaded in factor two (facet 3). Pathological lying is a factor one item loaded in factor one (facet 1). Conning /manipulative is a factor

one item and loaded in factor one (facet 1). Lack of remorse is a factor one item loaded in factor one (facet 1). Shallow affects a factor of one item, neither loaded in one nor two. Callous/lack of empathy is a factor one item and also loaded in factor one (facet 1). Failure to accept responsibility for ow action is a

factor one item but loaded in factor two. (Facet 3) Consequently, the need for stimulation is a factor two-item but loaded in factor one (facet 2). Parasitic lifestyle is a factor two item and loaded in factor two (facet 4). Lack of realistic long-term goal is a factor two-item but loaded in factor one (facet 2). Impulsivity is a factor two items loaded in factor one. (Facet 2) Irresponsibility in factor two loaded in factor one (facet 2). Poor behavioural control in factor two loaded in factor one (facet 1). Promiscuous sexual behaviour is a factor two item and loaded in factor two (facet 3). many short-term marital relationships an omitted item loaded in factor two (facet 4), Early behavioural problems in factor two loaded in factor two (facet 4). Juvenile delinquency in factor two loaded in factor two (facet 4). Revocation for conditional release is a factor two-item but did not load in either factor one or two. Criminal versatility is a factor two item and also loaded in factor two (facet 4). Since our cut off point is four (4) and following the above factor loading analysis, each factor i.e., factors one and two loaded a minimum of four items each, it, therefore, indicated that participants on factor 1 manifested symptoms of the Interpersonal and Affective features of Psychopathy while individuals on factor 2 also manifested symptoms of the Social Deviance (lifestyle and antisocial) features of Psychopathy. It is pertinent to state that the norm used for scoring each item for both factors 1 and 2 as indicated in table 3 above is 0.40 to 0.90 as in the original study and the result is consistent with the PCL-R factor structure which has factor 1 as Personality-based and factor 2 as behavioural-based.

Discussion of findings

The study hypothesis of statistically significant difference in the 2-factor structure of the PCL-R 2nd edition in Nigeria with that of the Euro-American studies was confirmed; The Study confirmed the 2 factors that constitute the major behavioural domains of Psychopathy and the 4-facets that defines them. However, in this study, the facets differentiation is not the same as that of the original study as observed in factors 1 (facet 1 & 2) and factor 2 (facet 3 & 4). It,

therefore, means that participants on factor 1 manifested symptoms of the interpersonal and affective features of Psychopathy while individuals on factor 2 manifested symptoms of Social Deviance (lifestyle and antisocial) features of Psychopathy. This study implies that the Profiling of criminals in psychopathy in Nigeria is dependent on their personality traits and social deviance. This result is consistent with the work of Hare's PCL-R 2-factor structure which is factor 1 is Personality-based and factor 2 is behavioural-based (PCL-R; Hare 1991, 2003). This result also agrees with the work of Hare (2003) on factor analysis scores, 0.35, 0.46, 0.56, 0.58, and 0.66 and that PCL-R correlated with factors 1 and 2 (Hare, 2003). In the same light, the results also support the work of Salekin et al (1996) who reported a PCL-R 2-factor structure and asserted that it remained consistent with factor 1, being personality-based and factor 2 is behavioural based. This result is also in agreement with the findings of Newman and Smith (1990) who reported that in a sample of 384 incarcerated inmates at an American medium-security prison and results revealed that participants correlated -0.47, -0.2, and -0.62 with PCL-R Total factor 1 and factor 2 scores.

Conclusion: The Study confirmed 18-item loadings, 2 factors that constitute the major behavioural domains of Psychopathy and the 4 facets that define them. Defining the pattern of factor loadings, it indicated that item 7 (shallow effect) and item 19 (Revocation for conditional release) did not load on a specific factor. In this case, the two items were dropped from subsequent analyses.

Recommendation: Researchers, Forensic and Clinical experts in Nigeria may wish to work with the 18-items, 2-factors and 4-facets PCL-R as a reliable measure of Psychopathy for the assessment of Psychopathic traits and other violent criminal tendencies in Nigeria.

References

Babiak, P. (2000). Psychopathic manipulation at work. In C. B. Gacono (Ed), *The Clinical and Forensic Assessment of Psychopath: A*

- Practitioner's Guide* (pp. 287-312). Mahwah, NJ: Lawrence Erlbaum Associates.
- Cleckely, H. (1976). *The Mask of sanity*, 5th edition. St. Louis, MO: Mosby.
- Frick, P.J. (1998)., & Hare, R.D. (2001). *Antisocial Process Screening Device*. Toronto, ON: Multi-Health System
- Hare, R. D., Harpur, T.J., Kakstian, A.R., Forth A.E. Hart, S. D & Newman, J.P. (1990). The revised Psychopathy Checklist: Reliability and factor structure. *Psychological Assessment* 2, 338-341.
- Hare, R. D. (2001). Psychopaths and their nature: Some implications for understanding human predatory violence. In A. Raine & J. San Martin (Eds.), *Violence and Psychopathy* (pp. 5–34). New York: Kluwer.
- Hare, R.D. (1991). *The Hare Psychopathy Checklists-Revised Manual*. North Tonawanda,
- Hare, R.D. (2002). Hares page for the study of psychopathy. January 29, 2002 (cited April 5, 2002)
- Hare, R.D. (2003) *Manual for this revised psychopathy checklist* (2001) Toronto, on Canada Multi-Health system.
- Hare, R.D. (2003). *The Hare psychopathic checklists revised manual (2nded)*. North Tonawanda, NY: Multi-Health Systems.
- Hollin, C.R. (1989). *Psychology and Crime: An Introduction to Criminological Psychology*. London Routledge.
- Intrator, J., Hare, R., Stirszke, P., Brichtswein, K. (1997). A brain imaging (single-photon emission computerized tomography) study of semantic and affective processing in psychopaths. *Biological Psychiatry*, 42, 96-103
- Lahey, B.B., Hart, E.L., Pliszka, S., Applegate, B., & McBurnett, K. (1993). Neurophysiological correlates of conduct disorder: A rationale and a review of research. *Journal of Clinical Child Psychology*, 22, 141-153
- Lynam, D.R. (1996). Early identification of chronic offenders: Who is the fledgling psychopath? *Psychological Bulletin*, 120, 209-234
- McBurnett, K., & Pfiffner, L. (1998). Comorbidities and biological correlates of conduct disorder. In D.J. Cooke, A.E., Forth, & R.D. Hare (Eds). *Psychopathy: Theory, Research, and Implications for Society* (pp.189-203). Dordrecht, The Netherlands: Kluwer Academic Publishing.
- Moffit, T.E. (1993). Adolescence-limited and life-course-persistent antisocial behaviour: A developmental taxonomy. *Psychological Review*, 100, 674-701.
- Newman, J.P. & Smith, S.S. (1990). Alcohol and drug abuse/dependence disorders in psychopathic and non-psychopathic criminal offenders. *Journal of Abnormal psychology*, 99,430-439.
- Robins, L.N. (1996). An etiological implication in studies of childhood histories relating to antisocial personality. In R.D. Hare & d. Schalling (Eds.). *Psychopathic Behavior: Approaches to Research* (pp. 255-271). Chichester, England: John Wiley & Sons, Inc.
- Rogers, R., & Salekin. (2008). Prototypical analysis of antisocial personality disorder: A study of inmate samples. *Criminal Justice and Behaviour*, 27,234-255.
- Ruwan, F.I.I., & Zamani. A.E. (2021). Assessing the Prevalence of Psychopathy among Criminal and Non-criminal Population in Kaduna State-Nigeria *KIU Journal of Humanities* ISSN: 2415-0843: Vol 6 (3):77-90.2021.
- Salekin, R., Rogers, R. & Sewell, K. (1996). A review and meta-analysis of the Psychopathy Checklist and Psychopathy Checklist-Revised: Predictive validity of dangerousness. *Clinical Psychology: Science and practice*, 3,203-215.
- Weiss, G. (1983). Long-term outcome; findings concepts and practical implications; in M. Rutte(edition) *Developmental Neuropsychiatry*, New York Guildford Press



This work is licensed under a Creative Commons Attribution 4.0 International License