The role of psychopathy factors in reactive aggression within a sample of prisoners

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Abstract

Purpose - The main objective of this paper is to examine the role of four psychopathy factors (Interpersonal Manipulation, Callous Affect, Erratic Lifestyle, and Antisocial Behaviour) and the length of incarceration in reactive aggression. The predictive effect of dissatisfaction with peer relations, childhood experiences of violence, and criminal friends on reactive forms of aggressive acts is also explored.

Design/methodology/approach – One hundred and twenty nine (N = 129) male prisoners incarcerated in Stargard Szczecinski Prison were recruited for the study. Cross-sectional design using self-report questionnaire of retrospective and prospective nature was utilised.

Findings – Hierarchical multiple regression analysis revealed that only one psychopathy facet, Interpersonal Manipulation, forms a significant association with reactive aggression. Another accurate correlate of reactive aggression was the length of incarceration.

Originality/value – The results of the present study indicate that the commonly suggested two-factor models of psychopathy may be misguided. Future studies examining the effect of psychopathy facets on aggression should consider Interpersonal Manipulation and Callous Affect as separate dimensions. Additionally, this study is the first to demonstrate that reactive aggression may be exacerbated during incarceration.

Keywords *Psychopathy factors, Reactive aggression, Incarceration, Prisoners, Exposure to violence*

Paper type *Research report*

Introduction

The link between psychopathy and aggression has been the subject of investigation in a number of studies. Psychopathy is a clinical construct characterised by a constellation of interpersonal (e.g., deceitfulness, superficial charm, grandiosity), affective (e.g., lack of empathy, remorse, or guilt), lifestyle (e.g., impulsivity, irresponsibility), and behavioural (e.g., social deviance, criminality) features (Hare and Neumann, 2008). It has been established that children, adolescents, and adults exhibiting psychopathic features tend to be more aggressive than their non-psychopathic counterparts (Porter and Woodworth, 2007). Research results demonstrated that psychopaths commit more violent as well as non-violent crimes in comparison with non-psychopathic offenders (Porter et al., 2001). Psychopathy was reported to be an accurate predictor of violent behaviour and violent recidivism (Boduszek et al., 2012; Dhingra and Boduszek, 2013; Dolan and Doyle, 2000; Hart, 1998; Salekin et al., 1996; Skeem and Mulvey, 2001).

Just like psychopathy, aggression does not constitute a uniform concept. Types of aggression can be distinguished on the basis of underlying motivation (Porter and Woodworth, 2007). Feshbach (1964) argued for a bimodal categorisation of aggression: reactive/hostile and proactive/instrumental. Reactive aggression is conceptualised as a response to threat or frustration and is marked by increased levels of anger. Such aggressive acts are not premeditated and occur spontaneously in the face of an oncoming danger (Blair, 2010; Blanchard et al., 1977; Price and Dodge, 1989). Following the aggressive acts, reactive aggressors were frequently found to feel remorseful (Barratt et al., 1999; Dodge, 1991). Instrumental aggression, on the other hand, consists of purposeful and goal-directed actions (Weinshenker and Siegel, 2002). Proactive aggressors do not tend to experience heightened arousal during or negative feelings after acting violently (Barratt et al., 1999; Dodge, 1991). Moreover, empirical research revealed no statistically significant correlation between the two

types of aggression, which suggests the involvement of distinct psychological mechanisms in the activation of reactive and proactive aggression (Littlen et al., 2003).

Porter and Woodworth's (2007) review of research studies revealed that psychopaths engage in both types of aggressive behaviour, however, a stronger link between psychopathy and instrumental aggression was reported. Cornell et al. (1996) distinguished two classes of violent psychopaths: those who engage in both reactive and instrumental aggression, and those who partake in reactive aggression only. Hart and Dempster (1997) referred to acts of violence perpetrated by psychopaths as "impulsively instrumental". Previous research found interpersonal style/emotional detachment (Factor 1) to be positively related with both reactive and proactive aggression, whereas antisocial behaviour/erratic lifestyle (Factor 2) correlated with reactive aggression only (Falkenbach et al., 2008; Reidy et al., 2007).

Furthermore, callous/unemotional (CU) traits, which constitute the core of psychopathic personality, were often associated with instrumental, pre-planned forms of aggression (e.g., Frick et al., 2003; Williamson et al., 1987; Woodworth and Porter, 2002) and reduced impulsivity (e.g., Snowden and Gray, 2011). Some research suggests that youth with CU traits tend to engage in acts of violence which are both reactive and proactive in nature (Enebrink et al., 2005; Fanti et al., 2009; Kruh et al., 2005). However, there are some inconsistencies in the findings of studies examining the role of CU traits in combined or pure forms of reactive and instrumental aggression. For instance, Raine et al. (2006) found that only pure instrumental aggression was correlated with psychopathy and blunted affect in a sample of boys.

Reactive aggression appears to be a function of both Factor 1 and Factor 2 psychopathy, however, contradictory evidence has been reported. One possible explanation of this may be that previous studies examined two, rather than four, facets of psychopathy.

Offering support for this, in a study by Debowska et al. (2014), structural equation modelling was carried out to investigate the relationship between four psychopathy factors and reactive aggression within a sample of 319 working adults. Results revealed that Erratic Lifestyle (ELS; $\beta = .43$, $p < .001$) and Interpersonal Manipulation (IPM; $\beta = .34$, $p < .05$) were statistically associated with aggression. The Antisocial Behaviour (ASB) factor was not statistically associated with aggression ($\beta = .43$, $p > .05$). Callous Affect (CA) facet was found to be negatively yet not significantly associated with reactive aggression ($\beta = -.25$, $p > .05$). This finding indicates that the commonly suggested two-factor models of psychopathy which combine the Interpersonal and Affective factors may be misguided.

Further, aggression scores were reported to be significantly higher for prisoners (both psychopathic and non-psychopathic), compared with the scores recorded for the general population (Cima et al., 2008). Psychopathy was found to be an accurate predictor of aggression within a sample of 226 incarcerated adolescent offenders (Campbell et al., 2004). Research suggests that increased aggression levels among inmates may be a form of adaptation to incarceration (van der Laan and Eichelsheim, 2013). Indeed, persistent feelings of anxiety and stress were found to increase the likelihood of engaging in aggressive behaviour (O'Donell and Edgar, 1999). Working from a situational prison control perspective, Wortley (2002) suggested that prison environment creates opportunities for both stress and violence. Problem behaviour may be a response to overcrowding, adverse living conditions, and the absence of recreational activities. Another factor leading to misbehaving may be the lack of appropriate surveillance. Previous research by Boduszek et al. (2013) demonstrated that a higher frequency of imprisonments is associated with a greater probability of committing a violent criminal act. However, studies examining the direct effect of the length of incarceration on reactive aggression are yet to be conducted.

Another important correlate of aggressive behaviour may be childhood exposure to violence (Kaufman and Cicchetti, 1989; Rogosch and Cicchetti, 1994). Maltreated children were perceived as more aggressive by familiar adults (Alessandri, 1991; Crittenden et al., 1994) and peers (Salzinger et al., 1993). Shields and Cicchetti's (1998) research with 141 maltreated and 87 non-maltreated children revealed a heightened risk for reactive aggression among physically abused children. It was suggested that this association is mediated by insecure attachments to parents and deficits in social information processing (Dodge et al., 1995). Abused children were also reported to evidence disrupted emotional development, resulting in fear, anger, or flat affect (Gaensbauer, 1980). Consistent with cycle-of-violence hypothesis, childhood maltreatment experiences may increase an individual's risk for condoning and engaging in acts of violence (Kerr and Bowen, 1988). This is also in line with Bandura's (1965) social learning theory, which highlights the importance of past learning experiences on aggressive behaviour.

It appears that the role of psychopathy, imprisonment, and exposure to violence in accounting for reactive aggression is not yet clear in the literature. Therefore, in the current study, we assessed the relations between four psychopathy facets, adverse childhood experiences as well as time served in prison and reactive aggression. Given research demonstrating differential associations between four psychopathy factors and aggression, it was hypothesised that Erratic Lifestyle and Interpersonal Manipulation facets would be statistically related with reactive aggression. Additionally, it was predicted that the length of imprisonment and childhood exposure to violence would form significant associations with reactive aggression.

Method

Participants

The opportunistic sample consisted of 129 male prisoners incarcerated in Stargard Szczecinski Prison in Poland. Prisoners ranged in age from 17 to 59 years (*M* = 27.08, S*D* = 9.08). Among the current sample of offenders, 59 (45.7%) reported committing a robbery, 37 (28.7%) reported committing assault/battery, 12 (9.3%) reported committing a murder, 8 (6.2%) reported committing financial crimes, 2 (1.6%) reported committing offences of sexual nature, and 54 (41.9%) reported committing other offences. Duration of imprisonment ranged from 1 to 17 years (*M* = 2.46, *SD* = 2.33).

Procedure

Ethical approval was granted by the relevant institutional ethical review board. Prisoners were asked by the prison psychologist to complete the questionnaires in their living units. Participants gave informed consent to take part in the study and completed anonymous, paper and pencil questionnaires which were compiled into a booklet along with an instruction sheet and a consent form attached to the front of the booklet. Each participant was provided with a brief description of the study, how to complete the questionnaire, and the general expected completion time. Participants were assured about the confidentiality of their participation and informed that they could withdraw from the study at any time. Participation was voluntary without any form of reward.

Materials

Self-Report Psychopathy Scale *(SRP-III;* Paulhus et al., in press) is a 64-item measure generated on the basis of the Psychopathy Checklist-Revised (PCL-R; Hare, 1991). It consists of four subscales: Interpersonal Manipulation (α = .78), Callous Affect (α = .62), Erratic

Lifestyle (α = .60), and Antisocial Behaviour (α = .75). Items are scored on a 5-point Likert scale.

The Buss-Perry Aggression Questionnaire – Short Form *(BPAQ;* Bryant and Smith, 2001; Buss and Perry, 1992). The original BPAQ consists of 29 items rated on a 5-point Likert scale. The measure was translated to Polish by the AMITY Institute (Instytut AMITY, n.d.). It contains all 29 items from the original version of the questionnaire, however, for the purpose of the present research, only 12 items composing the abbreviated version of the instrument have been used (α = .85).

The Recent Exposure to Violence Scale (REVS; Flannery et al., 2007) is a 22-item scale measuring experiences of violent and threatening events using a 4-point Likert scale. Given that the scale was administered to adult participants the focus was on their exposure to violence in childhood. Cronbach's alpha for the scale was α = .85.

Criminal Friend Index (CFI; Mills and Kroner, 1999). Participants from general population were asked to recall three adult friends with whom they spend most of their time and answer the following questions about them: (1) Has this person ever committed a crime?; (2) Does this person have a criminal record?; (3) Has this person ever been to prison; (4) Has this person tried to involve you in a crime?. In terms of prison sample, the CFI was used to collect retrospective data. Inmates were asked to recall friends with whom they spend most of their time before first incarceration.

Loneliness and Social Dissatisfaction Questionnaire (LSDA; Cassidy and Asher, 1992) is a 15-item scale about children's feelings of loneliness and dissatisfaction with peer relations. Cronbach's alpha was α = .86.

Results and discussion

Descriptive statistics and correlations

Descriptive statistics including means (*M*) and standard deviations (*SD*) for aggression, Interpersonal Manipulation, Callous Affect, Erratic Lifestyle, Antisocial Behaviour, exposure to violence, Loneliness and Social Dissatisfaction, Criminal Friends Index, time served in prison, and age are presented in Table 1. Prisoners in the current sample revealed moderate levels of reactive aggression and psychopathy, with the highest scores on the Erratic Lifestyle dimension of psychopathy.

Correlations amongst the predictor variables included in the study were examined using the Pearson product-moment correlation (see Table 1). Aggression was significantly correlated with all predictor variables except for Loneliness and Social Dissatisfaction (r = -.06, p > .05). The strongest correlations with aggression (p < .001) were found for Interpersonal Manipulation (r = .47), Erratic Lifestyle (r = .46), Antisocial Behaviour (r = .45), Callous Affect (r = .36), and Criminal Friends Index (r = .33).

[Insert Table 1 about here]

Hierarchical multiple regression analysis

Hierarchical multiple regression was performed in order to verify which psychopathy factors were significantly associated with aggression, after controlling for covariates (exposure to violence in childhood, Criminal Friend Index, Loneliness and Social Dissatisfaction, time served in prison, and age). Preliminary analyses revealed no violation of the assumptions of normality, linearity, multicollinearity, and homoscedasticity.

In the first step of the analysis, four predictors were entered: Interpersonal Manipulation, Callous Affect, Erratic Lifestyle, and Antisocial Behaviour. This model was statistically significant ($F_{(4, 111)} = 12.45$, $p < .001$) and explained 31% ($R^2 = .31$) of variance in reactive aggression. Two psychopathy facets, Interpersonal Manipulation and Erratic Lifestyle, made a significant unique contribution to the model (see Table 2). This is in line with previous research which revealed differential associations between reactive aggression and four psychopathy facets, indicating that psychopathy should be considered as a four- rather than two-dimensional concept (Debowska et al., 2014).

[Insert Table 2 about here]

After entering exposure to violence in childhood, Criminal Friend Index, Loneliness and Social Dissatisfaction, time served in prison, and age at Step 2 of the analysis, the total variance explained by the model as a whole was 39% ($R^2 = .39$; $F_{(9, 106)} = 7.41$, $p < .001$). The introduction of covariates explained additional 8% of variance in aggression, after controlling for Interpersonal Manipulation, Callous Affect, Erratic Lifestyle, and Antisocial Behaviour (R^2 *Change* = .08, $p < .05$). In the final adjusted model, two out of nine predictor variables were statistically significant, with Interpersonal Manipulation recording a higher Beta value ($\beta = .28$, $p < .05$) than time served in prison ($\beta = .24$, $p < .01$).

This finding demonstrates that, after controlling for covariates, only one psychopathy facet, Interpersonal Manipulation, is a statistically significant correlate of reactive aggression. Given the similarities in interpersonal manipulation and relational aggression, it may be that individuals who score high on this psychopathy facet use manipulation as a means of harming others. Interpersonal manipulation can be conceptualised as a form of indirect aggression

which, depending on circumstances, may evolve into overly aggressive acts (Yoon and Somers, 2003). Another possible explanation of the current finding is that individuals whose attempts at manipulating others fail are likely to experience frustration and anger. This is reminiscent of the frustration-aggression hypothesis, which posits that aggression is a direct consequence of frustration (Dollard et al., 1939). Individuals who feel frustrated, thwarted or threatened are likely to behave aggressively since aggression is a natural response in such circumstances. Based on Berkowitz's (1973) suggestion, frustration leads to anger which readies a person to act aggressively.

Another significant correlate of aggression in the present study was the length of incarceration. Congruent with the situational prison control perspective, it may be that problem behaviour originates in difficult living conditions (Wortley, 2002). It appears that prisoners facing such adverse circumstances are likely to experience anger which may eventually evolve into reactive forms of aggressive acts. Therefore, aggression in individuals with an increased likelihood to misbehave may be further exacerbated during imprisonment. This is consistent with previous research which found a higher frequency of imprisonments to be related with violent offending (Boduszek et al., 2013), indicating that incarceration can promote aggression. The present findings thus may be considered to provide tentative evidence that being exposed to prison environment may result in the intensification of reactive aggression.

As hypothesised, reactive aggression was not significantly associated with Callous Affect. Although previous research linked Factor 1 psychopathy with reactive forms of aggressive behaviour (e.g., Cornell et al., 1996; Falkenbach et al., 2008; Reidy et al., 2007), those studies assumed psychopathy to be composed of two dimensions. It may be that this significant relation was strongly affected by the Interpersonal Manipulation psychopathy facet, rather than callous characteristics. Indeed, individuals with callous traits were noted for

the lack of guilt, whereas reactive aggression was associated with feeling remorseful following the acts of violence (Barratt et al., 1999; Dodge, 1991). The current finding is also consistent with earlier research which reported strong associations between callous/unemotional traits and reduced impulsivity (Snowden and Gray, 2011). Present results are supportive of Raine et al.'s (2006) suggestion that callous affect is not a significant predictor of reactive aggression.

The hypothesis that childhood exposure to violence would be significantly associated with reactive aggression was not confirmed by the present findings. Shields and Cicchetti (1998) asserted that physically maltreated children demonstrate a heightened risk for reactive aggression. A possible reason for this disparity may be that the present study did not focus specifically on physical abuse but considered many forms of childhood violence, experienced as both witnesses and victims. Therefore, it may be that different types of maltreatment form differential associations with aggression.

The results of the present study should be interpreted in light of some limitations. First, the present sample consisted of Polish incarcerated adults and hence it cannot be certain that the findings apply to other populations. Further research with participants from other cultural and linguistic backgrounds is therefore needed in order to exclude the possibility that the effects reported here are solely due to cultural differences. Second, the use of self-report data within a sample of prisoners whose command of language is poor may have introduced several well-known limitations, such as response bias. Therefore, the concern is that the participants could not fully understand the questions posed to them. However, this aspect of the study could not be controlled by the researchers. Past research on reactive aggression failed to consider psychopathy as a four-dimensional concept. Moreover, previous studies did not examine the effect of incarceration on reactive aggression. Therefore, despite the

aforementioned limitations, the results of the present study expand the current knowledge in the area of reactive aggression among prison population.

Conclusion

The main objective of this paper was to examine the role of psychopathy factors, adverse childhood experiences, and the length of incarceration in reactive aggression. Overall, findings of the current study provide a substantial contribution to the understanding of the occurrence of reactive acts of aggression within prison population. The results revealed Interpersonal Manipulation psychopathy facet to be a significant predictor of aggression. This study was the first to demonstrate that the length of imprisonment is significantly associated with reactive forms of aggressive behaviour.

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Table 1

Descriptive statistics and correlations between aggression, Interpersonal Manipulation, Callous Affect, Erratic Lifestyle, Antisocial Behaviour, Recent Exposure to Violence, Loneliness and Social Dissatisfaction, Criminal Friend Index, time served in prison, and age

Variables	AGG	IPM	CA	ELS	ASB	REV	LSD	CFI	Time	Age
AGG	-									
IPM	.47***	-								
CA	.36***	.62***	-							
ELS	.46***	.53***	.57***	-						
ASB	.45***	.56***	.49***	.51***	-					
REV	.22*	.22*	.01	.22*	.29**	-				
LSD	-.06	-.09	.11	.04	-.18*	-.38***	-			
CFI	.33***	.23*	.29**	.31**	.33***	.27*	-.06	-		
Time	.24**	-.01	-.04	.01	.20**	-.02	-.22*	.08	-	
Age	-.20**	-.07	-.18	-.32***	-.24*	-.10	.05	-.24**	.02	-
Mean	23.80	28.98	28.24	34.94	27.78	11.22	25.57	9.36	2.46	27.08
SD	9.23	9.52	7.12	9.55	9.76	6.49	5.07	10.51	2.33	9.08
Range	0-45	8-53	12-47	12-75	4-51	0-34	3-30	0-40	1-17	17-59

Note. AGG = Aggression; IPM = Interpersonal Manipulation; CA = Callous Affect; ELS = Erratic Lifestyle; ASB = Antisocial Behaviour; REV = Recent Exposure to Violence; LSD = Loneliness and Social Dissatisfaction; CFI = Criminal Friend Index; Time = Time served in prison.
*$p < .05$. **$p < .01$. ***$p < .001$

Table 2

Hierarchical regression model of psychopathy and aggression

	R	R^2	$adjR^2$	R^2 *Change*	*B*	*SE*	*β*	*t*
Step 1	.56	.31***	.29					
IPM					.23	.11	.24*	2.10
CA					.01	.14	.01	.07
ELS					.23	.10	.24*	2.40
ASB					.18	.10	.19	.19
Step 2	.62	.39*	.33	.08				
IPM					.27	.11	.28*	2.50
CA					.02	.14	.02	.16
ELS					.18	.10	.19	1.84
ASB					.06	.10	.06	.59
REV					.13	.13	.09	1.00
LSD					.11	.16	.06	.68
CFI					.12	.07	.14	1.60
Time					.84	.32	.24**	2.91
Age					-.07	.09	-.07	-.80

Note. IPM = Interpersonal Manipulation; CA = Callous Affect; ELS = Erratic Lifestyle; ASB = Antisocial Behaviour; REV = Recent Exposure to Violence; LSD = Loneliness and Social Dissatisfaction; CFI = Criminal Friend Index; Time = Time served in prison.
*$p < .05$. **$p < .01$. ***$p < .001$