

Investigating the Integrated Psychosocial Model of Criminal Social Identity in an Irish Prison

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Abstract

Objectives

Empirical research findings have shown that a sense of criminal social identity (CSI) is associated with enhanced levels of criminal thinking and criminal behaviour. Yet, there was a dearth of research examining the unique role of psychosocial factors in the development of CSI. Thus, the primary aim of the study sought to empirically investigate the role of the Integrated Psychosocial Model of Criminal Social Identity (IPM-CSI) by exploring, simultaneously, the valance of psychosocial factors in the development of criminal social identity. A secondary aim sought to explore the predictive ability of the IPM-CSI in explaining sexual offending.

Method

The opportunistic sample consisted of 164 male prisoners incarcerated in the Midlands Prison in Ireland. The following measures were used, Peer Rejection, Parental Supervision, Self-Esteem Measure for Criminals (SEM-C), The Psychopathic Personality Traits Scale (PPTS), The Measure of Criminal Attitudes and Associates, The Measure for Criminal Social Identity, and In-group and Out-group attitudes. Survey booklets were collected over a nine-day period. Data was analysed using Hierarchical Multiple Regression and Binary Logistic Regression.

Results

Statistical analyses revealed that criminal association and criminal attitudes were significant predictors of all three factors of CSI. In addition, number of sentences was predictive of both cognitive centrality and in-group ties. In the final analysis, the model explained between 42 – 50% of variance. In addition, the IPM-CSI explained up to 57% of sexual offending, revealing that lower levels of both self-esteem and criminal involvement, and higher levels of peer rejection were statistically significant determinants.

Conclusions

Offenders who engage more often with criminal associates and hold criminally oriented attitudes have a greater susceptibility to forming a criminal social identity. Interestingly, criminal involvement had the reverse effect on likelihood to commit a sexual offence, suggesting that sexual offenders have fewer criminal associates.

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Introduction

It is universally known that crime has an egregious effect on society. It has been estimated that in 2007 criminal behaviour cost the American taxpayer \$228 billion by way of services designed to police, correct, and legally represent criminals (Kyckelhahn, 2011). However, other researchers have estimated the annual cost to be much greater. For instance, Anderson (1999) aggregated direct and indirect costs (victim expenses, loss of potential workers) of crime in America and estimated the figure to exceed \$1 trillion. Apart from the vertiginous economic burden, criminal behaviour has deleterious effect on the victim, often resulting in psychological injury and reduced well-being (Miller, Cohen & Rossman, 1993). In addition, Box, Hale and Andrews (1988) found that fear of crime detrimentally effects many domains of life satisfaction, while Miller, Cohen and Wiersema (1995) explored emotional and economic costs of victimhood, in particular victims of violent assaults and property offences, and estimated the figure to be over \$500 billion per year, spent on services rendered to alleviate and countervail the traumatic continuance of injury connected to those experiences.

In the Republic of Ireland, there was over 200,000 crimes reported in 2015, with a 1% increase in personal crime when compared to 2010 (CSO, 2016a). Figures related to the economic expense of crime in Ireland do not yet exist, however the burden of criminal behaviour would most likely reveal a costly one, both to the taxpayer and the psychological wellbeing of those victimized by criminal behaviour. Therefore, the aim of policy-makers is to reduce the burden by redefining legislation and promoting ethical standards to be adhered by all. Yet, this is no simple endeavour, nor is it plausible to suggest that crime will ever be wholly abolished from society, however suffice to say, the all-encompassing burden of crime can be reduced through early intervention and prevention programs (Riley & Masten, 2005; Teerikangas et al., 1998) and ancillary rehabilitation services (Lipsey & Cullen, 2007). Yet, the outcome of these attempts, hitherto, remains ambiguous since reported personal crime rates continue to rise (CSO, 2016a) and furthermore, the most recent figures regarding recidivism rates in Ireland show that 45%, nearly one in two prisoners, will reoffend within the first three years of release (CSO, 2016b). The aim of rehabilitation services is to reduce subsequent reoffending. Yet to achieve this endeavour, the development and maintenance of criminal behaviour must be explored empirically, inclusive of social, psychological and

biological factors. These factors will, therefore, be explored throughout this study, namely, by investigating the Integrated Psychosocial Model of Criminal Social Identity (IPM-CSI).

What is criminality?

In criminal law, criminality is any behaviour that fails to abide by public law, and as a consequence of violation, penalty or punishment is imposed by the political authority of the state (Sutherland, Cressey & Luckenbill, 1992). Therefore, the term ‘criminality’ encompasses a large constellation of behaviours, is culturally malleable and only ever in accordance with the political paradigm in power (Sutherland, Cressey & Luckenbill, 1995).

From a psychological perspective, the term criminality is regarded as an aspect of social phenomenon and human behaviour which warrants explanation (Turk, 1964). Therefore, it is unconcerned with the severity of criminal violation, but more so, seeks to understand the mitigating factors that influence the occurrence of violations, and furthermore, to posit solutions to reduce violations from subsequently occurring. In addition, the scientific pursuit of explaining criminal behaviour is somewhat dichotomous in its interests. For instance, it seeks to understand and explain the taxonomy of criminality, while also recognizing and implementing the most auspicious amelioration programs (Turk, 1964). Thus, the current research holds these principles in the foreground of investigation.

The development of criminal behaviour

The development of criminal behaviour has been the subject to much empirical research. Throughout the years, theorists have examined the unique role of mitigating factors that subsequently lead an individual to engage in criminal behaviour. For instance, empirical research findings indicate that the development of antisocial behaviour is associated with negative childhood trauma (Driessen et al., 2006; Farrington, 2005; Weaver, Borkowski & Whitman, 2008; Widom, 1989). Moreover, it is widely regarded, that early childhood experiences have a profound impact on subsequent development, and furthermore, have the potential to influence behaviour throughout the lifespan (Widom & White, 1997; Booth & Stinson, 2015; Thompson, 2000). Attempts have been made to understand both, the processes by which antisocial behaviour occurs, and the mitigating factors that increase an individual’s criminal

propensity. For instance, Shader (2001) suggests that risk factors – adverse experiences that threaten typical development – accumulate during childhood, within five interrelated domains, including; individual, school, family, peer group and community. Moreover, the adverse influence of risk factors has been shown to be related to criminal behaviour. For instance, poverty has been associated with serious crime, in particular violent offending (Pratt & Cullen, 2005) and homicidal behaviour (Lee, 2000) while poor parental supervision has been shown to predict delinquency (Keijsers et al., 2012). It should be noted however that not all social risk factors are weighed equally in outcome potentiality. For instance, failure to meet the emotional and physical needs of the child often results in the fostering of antisocial tendencies in later life (Haapasalo & Pokela, 1999; Gilbert et al., 2009; Manly et al., 2013) which in consequence can lead to the formation of ineffectual coping mechanisms, whereby the child externalizes inner struggles (Hildyard & Wolfe, 2002;).

There is also a plethora of research suggesting that experiencing peer rejection in adolescence may be associated with greater levels of anti-social behaviour (Laird et al., 2001; Miller-Johnson et al., 2002). Moreover, Higgins, Piquero and Piquero (2010) found a positive relationship between peer rejection and higher levels of juvenile delinquency among a sample of adolescent males. In addition, empirical further research suggests that criminal cognitions play an enhanced role in the development of criminal behaviour (Andrews, Bonata & Wormith, 2006). For instance, Walters (2012) posits that criminal cognitions are attitudes, beliefs, thoughts and rationalizations used to justify criminal behaviour. Furthermore, research has shown that criminal thinking styles are one of the most significant predictors of criminal behaviour (Boduszek, Dhinga, & Debowska 2016) and recidivism (Gendreau et al., 1996), while Walters (2003) found that both criminal attitudes and criminal identity increases during the first six months of incarceration for novice inmates. This, therefore suggests that exposure to a criminal environment may increase criminal thinking, which has also been found to be a significant predictor of criminal behaviour, recidivism and criminal social identity (Boduszek, Dhinga, & Debowska, 2016; Gendreau et al., 1996; Walters & Lowenkamp, 2016).

Consolidating the vast repertoire of empirical findings related to criminal cognitions, social identity and risk factors, Boduszek and Hyland (2011) endeavoured the task of creating a model of Criminal Social Identity (CSI), aimed at exploring salient factors that mitigate the development and maintenance of criminal behaviour, which

they posit, stems from socially identifying with being a criminal or being in a criminal group.

The model of Criminal Social Identity (CSI)

In brief, the model of Criminal Social Identity (CSI) suggests that identification with a criminal group or criminal peers activates a sense of social belongingness or collective identity within the group, which subsequently increases criminal thinking patterns, thus leading to heightened levels of criminal behaviour (Boduszek & Hyland, 2011). Moreover, Boduszek and Hyland (2011) further suggests that the collective group identity develops through ideation of group superiority, orienting each group member with elevated levels of self-esteem which help to bolster intragroup bonds. Essentially, the individual forms an affinity with other criminal in-group members and subsequently adopts similar attitudes, behaviours, opinions and beliefs (Boduszek, Dhinga, & Debowska 2016). Therefore, the individual's sense of identity diminishes somewhat before subsequently reorienting towards a criminal social identity, which is in accordance with the ideations of the criminal group. In addition, elevated levels of criminal social identity have been shown to be associated with criminal thinking styles and a greater propensity to engage in criminal behaviour (Boduszek et al., 2012; Boduszek et al., 2013; Boduszek, O'Shea, Dhingra & Hyland, 2014; Shagufta et al., 2015a; Shagufta et al., 2015b; Sherretts, Boduszek, & Dobowska, 2016).

While conceptualizing the model, Boduszek and Hyland (2011) investigated several other pertinent theories, including Tajfel and Turner's (1979) Social Identity Theory (SIT) and a range of criminal thinking theories including, Mills and Kroner's (1999) criminal thinking styles, and Walters (1995) psychological inventory of criminal thinking styles. Subsequently, the objective of the CSI model, as stated by Boduszek et al. (2013), is to understand the development and maintenance of criminal thinking and criminal behaviour. In addition, working off Ellemers and colleagues (1999), Jackson's (2002) and Cameron's (2004) suggestions that social identity is more than a one-dimensional construct, Boduszek and colleagues (2012) suggested that CSI has three salient factors; cognitive centrality, in-group affect and in-group ties. These three factors are distinct, yet combine in the formation of one's criminal self-concept. For instance, cognitive centrality refers to the salience of group membership, and furthermore, how the group membership relates back to the individual's self-concept (Boduszek et al., 2012). In-group affect refers to the strength of emotional attachment

one fosters from group membership (Boduszek et al., 2012). In-group ties refers to the perceived emotional and psychological conformity between the individual and the group (Boduszek et al., 2012).

There is growing support in favour of the model. For instance, Boduszek et al. (2013) found that CSI acted as a mediator between criminal friends and criminal thinking. The results demonstrated that identification with criminal friends increased levels of criminal thinking, thus enhancing subsequent levels of criminal behaviour (Boduszek et al., 2013). Moreover, the model of CSI has been validated cross-culturally, with both sexes and with juvenile inmates (Sherretts & Wilmott, 2016). Further support has been offered by Shagufta et al. (2015b) demonstrating the model's protective role against suicide ideation in Pakistani prisoners. The findings of the study suggest that in-group ties acts as a buffer against negative self-evaluations, protecting the individual from negative affect, self-defeating thought patterns and feelings of isolation. This process is mediated by an elevated sense of belongingness associated with in-group identification (Shagufta et al., 2015b).

The validity of the model has, therefore, received positive support, and furthermore, has enhanced our understanding of the role of CSI in criminal thinking and behaviour. This has lead Boduszek, Dhingra, and Debowska (2016) to expand the model, inclusive of psychosocial components, which are intended to better explain the factors that mediate CSI.

The Integrated Psychosocial Model of Criminal Social Identity (IPM-CSI)

The revised model, the Integrated Psychosocial Model of Criminal Social Identity (IPM-CSI) attempts to identify an array psychosocial factors involved in the development of criminal social identity (Boduszek, Dhingra & Debowska, 2016). The IPM-CSI is comprised of four components: (a) identity crises, which is a combination of peer rejection, poor parental supervision and attachment, and components of family dysfunction (b) exposure to a criminal environment and criminal associates, (c) need for self-esteem which is garnered by group affiliation, and lastly (d) the unique personality traits of the individual (See figure 1).

Identity crises

As suggested by, Boduszek, Dhingra and Debowska (2016) the development of criminal social identity occurs, in part, due to an identity crises experienced during

adolescence. In addition, rejection by peers, which has previously been shown to be a risk factor (Miller-Johnson et al., 2002) plays a role in the formation of criminal social identity (Boduszek, Dhingra & Debowska, 2016). However, Boduszek et al. (2013) found that peer rejection is not directly related to criminal friends, more so, it acts by proxy. The negative feelings associated with peer rejection are intensified by other risk factors related to family dysfunction. For instance, Boduszek, Dhingra and Debowska (2016) reviewed the literature and found that lack of parental supervision, inappropriate parenting style and parental rejection were involved in the development of criminal associations and criminal cognitions. In addition, Boduszek et al. (2013) found that having criminal associates was a significant predictor in the development of criminal social identity, and furthermore, that criminal friends was associated with lower levels of parental control.

Exposure to criminal environment and criminal associates

As previously mentioned, empirical findings consistently indicate that exposure to a criminal environment is associated with subsequent criminal behaviour (Holsinger, 1999) while the number of criminal friends has been shown to enhance criminal cognition (Walters, 2003). This led, Boduszek, Dhingra and Debowska (2016) to theorize that, greater interaction with criminal friends imbues a sense of criminal belongingness, which gathers impetus from an identity crises experienced during adolescence. In addition, Boduszek et al. (2013) found that criminal friends were associated with all three factors of CSI.

Need for self-esteem

As was initially suggested by Boduszek and Hyland (2011), group identity develops through ideation of group superiority, bolstering elevated levels of self-esteem. However, there is a distinction between in-group self-esteem and individual self-esteem. For instance, Boduszek et al. (2013) found, using a sample of recidivistic prisoners, that during the development of criminal social identity, prisoners perceive themselves more negatively, and the group more favourably. This suggests that CSI is the core identity of the individual, and may encourage behaviours favourable to the group, even if detrimental to the individual.

Personality moderators

In conceptualizing the IPM-CSI, Boduszek, Dhingra and Debowska (2016) found that personality traits played a role in moderating the development of criminal social identity, and suggested that certain elements of psychopathy may be regarded as advantageous among in-group members. In addition, Boduszek, Dhingra and Debowska (2016) suggested that future research should focus on interpersonal and affective domains of psychopathy. This led to the development of the Psychopathy Personality Trait Scale (PPTS) – a measure of psychopathy, built on the premise that antisocial behaviour may be an outcome of psychopathy but not necessarily a core component (Boduszek, Debowska, Dhingra, & DeLisi, 2016). In keeping with the suggestions made by Boduszek, Dhingra and Debowska (2016) the present study aims to investigate the role of personality moderators using the Psychopathy Personality Trait Scale (PPTS), and will therefore be one of the first studies to use the new measure.

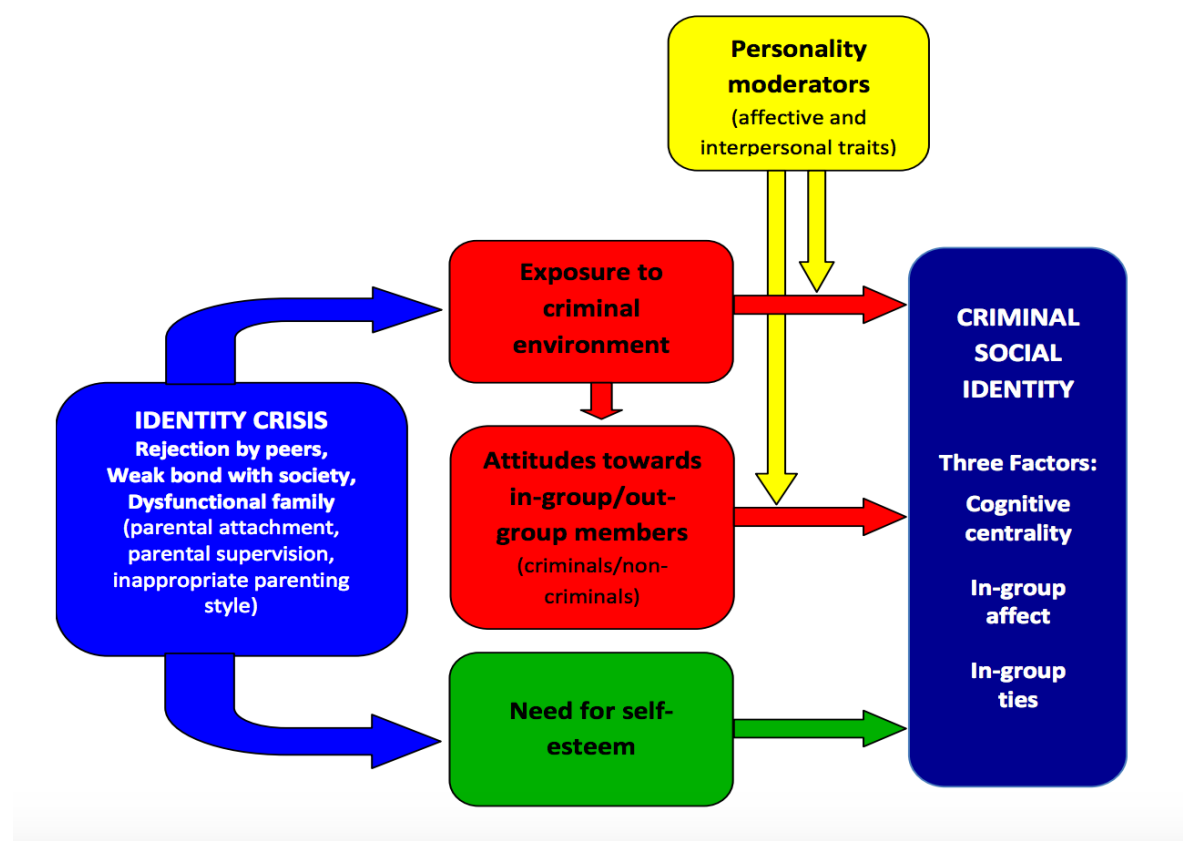


Figure 1. The Integrated Psychosocial Model of Criminal Social Identity (IPM-CSI)

The IPM-CSI and sex offenders

One aspect of criminal behaviour that remains unexplored by the model of CSI is sexual offending. The literature on sexually deviant behaviour suggests that there is a large amount of variance amongst offenders (Bartol & Bartol, 2011). This, therefore makes it difficult to devise an all-encompassing model of sexual offending. Traditionally, sexual offenders have been viewed as a distinct population within the criminal constellation, whose behaviour is related to unique factors, much unlike other criminal offence types that show evidence of a clearer aetiology (Seto and Lalumiere, 2010). Both Marshal and Barbaree (1990) and Ward and Beech (2006) posit models of sexual offending, which suggest the importance of developmental experiences concerning the continuance of sexually deviant behaviour. For instance, Marshal and Barbaree (1990) posit that early childhood trauma impedes healthy attachment and the development of pro-social views, while Ward and Beech (2006) suggest that sexual offending is linked to faulty coping mechanisms, whereby the individual adopts deviant sexual fantasies to buffer against negative emotional states. Subsequently, these fantasies become heightened and may be acted on resulting in the occurrence of a sexual offence.

Other researchers suggest that psychosocial factors may play a significant role in sexual offending (Debowska, Boduszek & Willmott, 2016) while Debowska, Boduszek, Dhingra and DeLisi (2016) found that an array of social factors were related to the development of enhanced sexually violent values. Interestingly, Seto and Lalumiere (2010) demonstrated that sexually deviant behaviour could not be explained by antisocial tendencies alone. More specifically, adolescent male sex offenders had fewer associations with criminal peers and exhibited lower levels of antisocial behaviour (Seto and Lalumiere, 2009). This, therefore suggests that sexually deviant behaviour involves more than general antisocial associations. In addition, Seto and Lalumiere (2010) found that certain factors were related to sexual offending, and some suggested factors are related, in part, to factors on the IPM-CSI. For instance, these factors included, childhood abuse or neglect, social isolation, anxiety and parent-child attachment. Moreover, Lyn and Burton (2004) found that insecure parental attachment was more predominant in male sex offenders compared to other criminal offenders, while Debowska and colleagues (2015) found that aspects of childhood abuse increased one's likelihood of developing sexually violent attitudes.

Moreover, there is also empirical evidence suggesting that psychopathy plays a significant role in the occurrence of sexual offending (Porter et al., 2001). For instance, Porter et al. (2000) found that sex offenders showed elevated scores on factor 1 using the Psychopathy Checklist-Revised (PCL-R). Results further indicated that 64% of sex offenders displayed psychopathic characteristics. This finding is somewhat in agreement with Debowska et al. (2015) finding, which suggests that certain features of psychopathy, namely affect impairment, increases one's risk of sexual coercion. In addition, Sex offenders who displayed greater levels of psychopathy were more likely to reoffend (Serin and Mailloux, 2001; Seto and Barbaree, 1999).

To summarise, although the development of sexually deviant behaviour is related to unique factors distinct from other criminal offenders, homogeneous risk factors for both appear throughout the literature, most notably, childhood abuse and neglect, poor parent-child attachment and elevated levels of psychopathic traits.

The current study

Previous research has explored the role of CSI in the development of criminal thinking and criminal behaviour. However, there is a dearth of empirical findings related to the factors that mediate the development of CSI. In addition, considering the suggestions made by Boduszek, Dhingra and Debowska (2016) that psychosocial factors should be investigated simultaneously, the current study will attempt to explore the IPM-CSI using a sample of inmates incarcerated in an Irish prison. In essence, the current study seeks to investigate the valance of psychosocial factors in determining the salience of each factor on the three-factor model of CSI (cognitive centrality, in-group affect, in-group ties). The IPM-CSI offers a comprehensive understanding of criminal behaviour. Therefore, it may aid policy makers in the development of effective intervention and prevention programs by determining the factors pose the greatest risk to the development and maintenance of CSI. Lastly, as previously mentioned, no study hitherto has explored the role of IPM-CSI in predicting one's likelihood to commit a sexual offence, hence, the applicability of the model warrants further investigation.

The current study was designed with the following aims.

1. Primarily, to empirically investigate the role of the Integrated Psychosocial Model of Criminal Social Identity (IPM-CSI) by exploring, simultaneously, the valance of psychosocial factors in the development of criminal social identity.

2. Secondly, to explore the predictive ability of the IPM-CSI in explaining sexual offending.

Method

Participants

The opportunistic sample consisted of 164 male prisoners incarcerated in the Midlands Prison in Ireland. Upwards of 250 prisoners were asked to take part in the study, 182 questionnaires were handed back, however 18 were spoiled and subsequently jettisoned. All prisoners who were willing to take part were given the opportunity. Prisoners unable to read and write were naturally excluded since those skills are pertinent to partaking in the study. The majority of participants were recruited through the prison workshops i.e. metalwork shop, kitchen, horticulture. The offender sample consisted of 24 murderers, 56 sex offenders, 37 weapon offenders, 7 fraudsters, 56 physical assault perpetrators, 37 burglars, 43 drug dealers, 3 domestic violence offenders, 12 arsonists, 28 road/traffic offenders, 30 property crime offenders, and 20 other crime offenders. The average age of participants was 36.90 ($M = 36.90$, standard deviation (SD) = 11.78, range from 19 – 77). The sample included 82 first time offenders, 82 repeat offenders, 9 of which had life sentences. The average number of reported sentences was 3 ($M = 3.04$, standard deviation (SD) = 3.07, range from 1 – 15). The average time spent in prison was 6.3 years ($M = 6.29$, standard deviation (SD) = 6.25, range from 1 month – 44 years).

Design and statistical analysis

The current study adhered to a multivariate cross-sectional research design. The aims of the study were investigated using data obtained from prisoners incarcerated in the Midlands Prison. In addition, all statistical analyses – descriptive statistics, Pearson product-moment correlation coefficient, hierarchical multiple regression, and binary logistic regression – was determined using SPSS 22.

A hierarchical multiple regression, as recommended by Cohen and colleagues (2003) was conducted to test the impact and interaction effects of predictor variables (PV's) peer rejection, parental attachment, parental supervision, early life adversity, number of sentences, criminal associations, criminal attitudes, self-esteem, and psychopathy on each criterion variables (CV) of criminal social identity, cognitive centrality, in-group affect, and in-group ties. Block 1 related to early life factors, and included, peer rejection, parental attachment, parental supervision, and early life adversity. Block 2 related to criminal influences, and self-esteem, and included number

of sentences, criminal associations, criminal attitudes, and self-esteem. Block 3 related to the influence of personality moderators, and included a single variable, psychopathy.

To determine possible factors that predict sexual offending, a binary logistic regression was conducted. The combination of predictor variables (PV's) used to estimate the probability of committing a sexual offence (CV) included, number of parents raised by, cognitive centrality, in-group affect, in-group ties, self-esteem, peer rejection, parental attachment, parental supervision, criminal attitudes, criminal associations, psychopathy and early life adversity.

Measures

The survey booklet included an information leaflet, a consent form, certain demographic questions, early life adversity scale, criminal history assessment, and scales to measure peer rejection, parental supervision, parental attachment, self-esteem, criminal association, criminal attitudes, psychopathy and criminal social identity (see appendix 1). All survey booklets were hard-copy only; meaning they were printed on paper and required participants to indicate responses using either a pen or pencil.

Information leaflet

The information leaflet and consent form was designed by the researcher, and informed participants on the title of the study, objectives, why they had been asked to participate, the nature of the study, their rights as participants, and issues of confidentiality.

Consent form

The consent form required participants to tick a box, indicating that they had read the attached information leaflet, that they understood their right to withdraw from the study, and essentially their consent to take part in the study. The demographic questions required participants to indicate their age and sex.

Early life adversity scale

The early life adversity section was presented in two parts. Part 1 required participants to retrospectively account, by ticking a box, whether their parents/guardians drank excessively, abused drugs, used force or violence against them, committed crime, or none of the above. Part 2 required participants to retrospectively account, by ticking a box, whether their siblings drank excessively, abused drugs, used force or violence

against them, committed crime, or none of the above.

Criminal history assessment

The criminal history section encompassed a range of questions. Firstly, participants were required to tick a box to indicate what crimes they have been convicted of. Subsequently, participants were instructed to tally up all previous convictions and give their total number of sentences. Finally, participants were asked to approximate how long they had spent in prison, including periods of remand, and give a number in terms of days, weeks, months or years.

Peer rejection

Each participant's level of peer rejection was determined using Mikami, Boucher and Humpherys (2005) measure of peer rejection. The measure is a retrospective, self-report scale that assesses the impact of the relationship between the participant and fellow peers. The questionnaire is a 4-item instrument, with a 5 point Likert scale, ranging from 5 (positive) to 1 (negative). Total scores can range from 4 to 20. Items 2 and 4 are reversed scored. Higher scores indicate more positive bonds with peers. Weaker scores indicate more negative bonds with peers. Participants are asked to retrospectively report peer relationships, making a distinction between *liked* versus *disliked*. Sample questions included, (How many students in your class did you get along with?). Previous studies have shown this scale to maintain a desirable degree of validity and reliability (Boduszek et al., 2013).

Parental supervision

Each participant's level of parental supervision was determined using Ingram, Patchin, Huebner, McCluskey and Bynum (2007) measure of parental supervision. The measure is a self-report scale that retrospectively assesses the strength of parental supervision. The instrument includes a 6-item-inventory, with a 4-point Likert scale, ranging from 4 (knew everything) to 1 (knew nothing). Total scores can range from 6 to 24. Higher scores indicate greater levels of parental supervision, while weaker scores indicate poorer levels of parental supervision. The items assess specific areas of parental knowledge (see appendix 1). Sample questions include (How much did your parents know about what you were doing with friends?). Previous studies have shown this scale to maintain a desirable degree of validity and reliability (Boduszek et al., 2013).

Self-esteem

Each participant's level of self-esteem was determined using Debowska, Beduszek and Sherretts (2016) Self-Esteem Measure for Criminals (SEM-C). The measure is a self-report scale that assesses levels of self-esteem, while considering the influence of prison culture. The questionnaire consists of an 11-item inventory, with a 4-point Likert scale, ranging from 1 (never) to 4 (always). Item 11 is reversed scored. Total scores can range from 11 to 44. Higher scores indicate poorer levels of self-esteem, while lower scores indicate greater levels of self-esteem. The items assess specific areas, including how the participants perceive themselves, and how they perceive themselves in comparison to other inmates. Sample questions include (How often do you feel you are easy to like?). Previous studies have shown this scale to maintain a desirable degree of validity and reliability (Debowska, Beduszek & Sherretts, 2016).

Psychopathy

Each participant's level of psychopathy was determined using Boduszek, Debowska, Dhingra and DeLisi's (2016) Psychopathic Personality Traits Scale (PPTS). The measure is a self-report scale that assesses levels of psychopathic traits within the personality of the individual. The questionnaire consists of a 20-item inventory, with dichotomous responses of 1 (agree) or 0 (disagree). Therefore, total scores can range from 0 to 20. Higher scores indicate greater levels psychopathic personality traits, while lower scores indicate weaker levels of psychopathic personality traits. Furthermore, the PPTS assesses psychopathy on 4 distinct factors. Factor 1 measures affective responsiveness (items 1, 5, 9, 13, 17); factor 2 measures cognitive responsiveness (2, 6, 10, 14, 18); factor 3 measures interpersonal manipulation (3, 7, 11, 15, 19); factor 4 measures egocentricity (4, 8, 12, 16, 20). Reverse scored items include, 2, 6, 10, 13, 14, 17. Previous studies have shown this scale to maintain a desirable degree of validity and reliability (Boduszek, Debowska, Dhingra, & DeLisi, 2016).

Criminal associations

Each participant's level of criminal associations was determined using Mills, Kroner and Hematti's (2004) Measure of Criminal Attitudes and Associates. The scale is a self-report measure that retrospectively assesses the relationship with criminal associates and friends. Participants are asked to recall three influential individuals whom they

spent the majority of time with before incarceration. They are asked a total of 4 questions relating to each individual. Sample questions include (Has this person ever committed a crime?). Two measures were used to determine the valance of criminal association. First, “Number of Criminal Friends,” was determined by calculating the number of “yes” responses. Next, the “Criminal Friend Index” was determined by calculating responses 1 through 4 to the percent of time options (0%–25%; 25%–50%; 50%–75%; 75%–100%) available for each friend. Subsequently, that number was multiplied by the number of “yes” responses related to criminal association. All answers were summed as the criminal friend index (CFI). Total scores for the criminal friend index ranged from 0 to 48. Higher scores indicate greater association with criminal associates. Previous studies have shown this scale to maintain a desirable degree of validity and reliability (Boduszek et al., 2013).

Criminal Social Identity (CSI)

Each participant’s level of criminal social identity was determined using Boduszek Revised Measure of Criminal Social Identity – under development. This scale is a self-report scale that assesses levels of criminal social identity on 3 separate factors; cognitive centrality, in-group affect, and in-group ties. The revised questionnaire has 18 items, with a 5 point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Items pertaining to cognitive centrality include, 1, 4, 7, 10, 13, 16. Items pertaining to in-group affect include, 2, 5, 8, 11, 14, 17. Items pertaining to in-group ties include, 3, 6, 9, 12, 15, 18. Total scores can range from 18 – 90. Higher scores indicate greater levels of criminal social identity, while weaker scores indicate lower levels of criminal social identity. Individuals are presented with questions such as; (Sample question: ‘I feel close to people who have committed a crime?’)

Criminal attitudes

Each participant’s level of criminal attitudes was determined using Boduszek’s measure of In-group and Out-group Attitudes – under development. The scale is a self-report questionnaire that assesses attitudes towards in-group and out-group members. The questionnaire has 8 items, with a 6 point Likert scale, ranging from 1 (strongly disagree) to 6 (strongly agree). Total scores can range from 8 to 48. Higher scores indicate greater levels of in-group affiliation. Weaker scores indicate higher levels of out-group

affiliation. Reverse scored items include, 3, 6, 7, 8. Sample questions include: (There is little to admire about the people who have committed a crime?).

Parental attachment

Each participant's level of parental attachment was determined using Boduszek's measure of Parental Attachment. This scale is a self-report measure that retrospectively assesses the relationship between the participant and parental bonding. The questionnaire consists of an 9-items inventory, with a 4-point Likert scale, ranging from 1 (not at all) to 4 (very much). Only item 6 is reversed scored. Total scores can range from 9 to 36. Lower scores indicate poorer levels of parental attachment, while higher scores indicate greater levels of parental attachment. Sample questions include (They were available to give me advice or guidance when I wanted it).

Procedure

Initially, the industrial manager and the governor of the Midlands Prison were contacted in relation to the current study. Subsequently, a draft of the survey booklet was commissioned and sent to both the industrial manager and the governor. Permission to conduct the study was provisionally granted, albeit, certain amendments were required. For instance, it was suggested that any questions pertaining to sexual abuse should be jettisoned. The reason being, it was deemed unethical, and may incense prisoners resulting in poorer participation rates. Amendments were subsequently made and a revised booklet (see appendix 1.0) was sent to the industrial manager, the governor and prisoner psychologists. Under the recommendation of prison psychologists, it was suggested that the proposed study should be reviewed by the Irish Prison Service (IPS) board of ethics. Subsequently a prison research application form was completed and sent to the IPS board of ethics. Ethical approval was granted by both the governor of the Midlands Prison and the IPS board of ethics, thus the study was given appropriate clearance to proceed.

Once approval was granted, the industrial manager informed appropriate prison staff about the nature of the study. In addition, heads of work and vocational units were asked to aid the recruitment procedure by making prisoners aware of the study. The survey booklets were then devised and delivered to the industrial manager, whom endeavoured the task of distributing the booklets to members of the prisoner population.

Upwards of 250 prisoners were recruited to take part in the study, mainly through the work and vocational units. In addition, the industrial manager distributed survey booklets to prisoners whom were not actively attending work or vocational units.

It should be noted, that all survey booklets were distributed by the industrial manager, and subsequently collected by the industrial manager. Therefore, the researcher had no direct contact with prisoners. Participation was on a voluntary basis and without reward. The study pertained to a full disclosure design, meaning that participants were made wholly aware of the exact nature of the study prior to participation. Thus, no deception was used throughout any stage of the study. Moreover, each participant was made aware that the study was part of the researcher's final year thesis, and therefore may be open for publication. Furthermore, participants were required to sign the consent form, which was attached to the second page of the survey booklet (See Appendix 1.0).

Each participant was given the survey booklet by the industrial manager, in a sealed envelope, and completed the self-report questionnaires anonymously, in their cell, using a pen or pencil. Each participant was given up to 5 days to complete the questionnaire, and once finished, they returned it back to the industrial manager in a sealed envelope. The duration of the study lasted nine days. Since the nature of responses was confidential, temporary storage of the data was stored securely in a locked filing cabinet in the industrial manager's office. Once all survey booklets were completed and returned, the researcher met with the industrial manager and collected all survey booklets in a location outside the prison.

Results

Descriptive statistics

Descriptive statistics, including means (M) and standard deviation (SD), for all continuous variables (cognitive centrality, in-group affect, in-group ties, peer rejection, parental attachment, parental supervision, early life adversities, no. of sentences, criminal involvement, criminal attitudes, self-esteem and psychopathy) are presented in Table 1. Histograms and normal Q-Q plots were assessed for each continuous variable in order to determine normality.

The mean score for cognitive centrality ($M = 13.76$, $SD = 5.79$) demonstrated that participants reported moderate levels of cognitive centrality. In addition, examination of the histogram revealed a slight positive skew to the normal distribution, while the normal Q-Q plot revealed a reasonable linearity, suggesting that cognitive centrality achieved a desirable degree of normal distribution.

The mean score for in-group affect ($M = 13.70$, $SD = 5.69$) demonstrated that participants reported moderate levels of in-group affect. In addition, examination of the histogram revealed a slight positive skew to the normal distribution, while the normal Q-Q plot revealed a reasonable linearity, suggesting that in-group affect achieved a desirable degree of normal distribution.

The mean score for in-group ties ($M = 15.92$, $SD = 6.25$) demonstrated that participants reported moderate levels of in-group ties. In addition, examination of the histogram revealed a slight positive skew to the normal distribution, while the normal Q-Q plot revealed a reasonable linearity, suggesting that in-group ties achieved a desirable degree of normal distribution.

The mean score for CSI Total ($M = 43.39$, $SD = 16.77$) demonstrated that participants reported moderate levels of CSI. In addition, examination of the histogram revealed a very slight positive skew to the normal distribution, while the normal Q-Q plot revealed a reasonable linearity, suggesting that CSI achieved a desirable degree of normal distribution.

The mean score for peer rejection ($M = 8.80$, $SD = 3.19$) demonstrated that participants reported moderate levels of peer rejection. In addition, examination of the histogram revealed a very slight positive skew to the normal distribution, while the

normal Q-Q plot revealed a slightly winding linearity. Overall, peer rejection was non-normally distributed.

The mean score for parental attachment ($M = 24.62$, $SD = 8.04$) demonstrated that participants reported moderately high levels of parental attachment. In addition, examination of the histogram revealed a slightly platykurtic bell curve with further evidence of negative skew to the normal distribution, while the normal Q-Q plot revealed a slightly winding linearity. Overall, parental attachment was non-normally distributed.

The mean score for parental supervision ($M = 15.55$, $SD = 5.18$) demonstrated that participants reported moderately high levels of parental supervision. In addition, examination of the histogram revealed a reasonably well shaped bell curve, while the normal Q-Q plot indicated a reasonable linearity, suggesting that parental supervision achieved a desirable degree of normal distribution.

The mean score for early life adversity ($M = 1.62$, $SD = 1.90$) demonstrated that participants reported low levels of early life adversity. In addition, examination of the histogram revealed a very slight positive skew to the normal distribution, while the normal Q-Q plot revealed a reasonable linearity. Overall, early life adversity achieved a reasonable degree of normal distribution.

The mean score for criminal association ($M = 15.55$, $SD = 5.18$) demonstrated that participants reported low levels of criminal association. In addition, examination of the histogram revealed a platykurtic bell curve with further evidence of positive skew to the normal distribution, while the normal Q-Q plot indicated a winding linearity. Overall, criminal association was non-normally distributed.

The mean score for criminal attitudes ($M = 27.41$, $SD = 8.53$) demonstrated that participants reported moderately high levels of criminal attitudes. In addition, examination of the histogram revealed a reasonably shaped bell curve, while the normal Q-Q plot indicated a reasonable linearity, suggesting that criminal attitudes achieved a desirable degree of normal distribution.

The mean score for self-esteem ($M = 18.66$, $SD = 5.04$) demonstrated that participants reported moderate levels of self-esteem. In addition, examination of the histogram revealed a slight positive skew to the normal distribution, while the normal Q-Q plot indicated a slightly winding linearity. Overall, self-esteem was non-normally distributed.

The mean score for psychopathy ($M = 6.59$, $SD = 3.73$) demonstrated that participants reported low levels of psychopathy. In addition, examination of the histogram revealed a slight positive skew to the normal distribution of psychopathy, while the normal Q-Q plot revealed a reasonable linearity, suggesting that psychopathy achieved a desirable degree of normal distribution.

Table 1
Presenting descriptive statistics and reliability for all continuous variables

Variable	Mean (95% Confidence Intervals)	Median	SD	Range	Cronbach's Alpha
CSI (cognitive centrality)	13.76 (12.87 - 14.65)	13	5.79	6 – 30	.87
CSI (in-group affect)	13.70 (12.83 - 14.59)	12.5	5.69	6 – 30	.88
CSI (in-group ties)	15.92 (14.96 - 16.88)	16	6.25	6 – 30	.89
CSI (total)	43.39 (40.80 - 45.98)	41	16.77	18 – 90	.95
Peer rejection	8.80 (8.30 – 9.29)	8	3.19	4 – 18	.78
Parental attachment	24.62 (23.37 - 25.86)	24.5	8.04	10 – 36	.92
Parental supervision	15.55 (14.74 – 16.35)	16	5.18	6 – 24	.90
Early life adversity	1.62 (1.33 – 1.91)	1	1.90	0 – 8	.74
No. of sentences	3.04 (2.57 – 3.51)	1	3.07	1 – 15	-
Criminal association	12.29 (10.17 – 14.42)	8	13.66	0 – 48	.90
Criminal attitudes	27.41 (26.03 – 28.73)	27	8.53	8 – 48	.75
Self-esteem	18.66 (17.89 – 19.44)	18	5.04	11 – 38	.80
Psychopathy	6.59 (6.01 – 7.16)	6	3.73	0 – 18	.75

Correlation analysis

Prior to conducting the hierarchical regression analysis, a bivariate correlation analysis was required firstly to determine the relationships between all independent variables and the dependent variables; as well as the relationship between all independent variables. The relationship between all continuous variables was investigated using Pearson product-moment correlation coefficient. Results from the analysis are presented in Table 2. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity.

Table 2. Correlations between all continuous variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Cognitive centrality	1												
2. In-group affect	.86**	1											
3. In-group ties	.81**	.85**	1										
4. Self-esteem	-.12	-.12	-.12	1									
5. Peer rejection	.16*	.10	.08	.31**	1								
6. Parental attachment	-.36**	-.40**	-.42**	.01	-.32**	1							
7. Parental supervision	-.43**	-.44**	-.48**	.03	-.21**	.55**	1						
8. criminal attitudes	-.51**	-.58**	-.54**	.20*	-.12	.36**	.42**	1					
9. Criminal association	.57**	.57*	.60**	-.13	.12	-.44**	-.42**	-.43**	1				
10. Early life adversity	.41**	.38**	.44**	-.13	.14	-.43**	-.40**	-.33**	.54**	1			
11. No. parents raised by	.31**	.26**	.33**	-.19*	.08	-.25**	-.27**	-.28**	.38**	.36**	1		
12. No. of sentences	.40**	.39**	.45**	-.05	-.02	-.37**	-.36**	-.25**	.41**	.59**	.28**	1	
13. Psychopathy	.40**	.34*	-.39**	.15	.05	-.24**	-.27**	-.24**	-.40**	.36**	.26**	.30**	1

Note. Statistical significance: * $p < .05$; ** $p < .01$; *** $p < .001$

Hierarchical multiple regression analysis predicting cognitive centrality

Hierarchical multiple regression was performed to investigate the ability of psychosocial components to predict levels of cognitive centrality, after controlling for early life factors (peer, rejection, parental attachment, parental supervision and early life adversity), criminal influences (no. of sentences, criminal attitudes, self-esteem and criminal association) and personality factors (psychopathy). Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. Additionally, the correlations amongst the predictor variables (peer rejection, parental attachment, parental supervision, early life adversity, no. of sentences, criminal associations, criminal attitudes, self-esteem, and psychopathy) were examined and these are presented in Table 2. All correlations were weak to moderate ranging between $r = -.12$ to $.51$. This indicates that multicollinearity was unlikely to be a problem (see Tabachnick & Fidell, 2013). All PVs with the exception of self-esteem were correlated with cognitive centrality which indicates that the data was suitable for multiple linear regression analysis.

In the first step of hierarchical multiple regression, four predictors were entered: peer rejection, parental attachment, parental supervision, and early life adversity. This model was statistically significant $F(4, 153) = 13.51$; $p < .001$ and explained 26% of variance in cognitive centrality (Table 3). After the entry of criminal influences (no. of sentences, criminal attitudes, self-esteem and criminal association) at Step 2 the total variance explained by the model was 45% ($F(8, 149) = 15.26$; $p < .001$). The introduction of criminal influences explained an additional 19% variance in cognitive centrality scores, after controlling for peer rejection, parental attachment, parental supervision, and early life adversity ($R^2 \text{ Change} = .189$; $F(4, 149) = 12.83$; $p < .001$). After the entry of personality factors (psychopathy) at Step 3 the total variance explained by the model was 46% ($F(9, 148) = 13.89$; $p < .001$). The introduction of personality factors explained an additional 1% variance in cognitive centrality scores, after controlling for peer rejection, parental attachment, parental supervision, and early life adversity, no. of sentences, criminal attitudes, self-esteem and criminal association ($R^2 \text{ Change} = .007$; $F(1, 148) = 2.05$; $p = .155$).

In the final model three predictor variables uniquely predicted higher levels of cognitive centrality however criminal associations was found to have the strongest effect (see Table 3 for full results).

Table 3. Hierarchical regression model predicting cognitive centrality

	<i>R</i>	<i>R</i> ²	<i>R</i> ² <i>Change</i>	<i>B</i>	<i>SE</i>	β	<i>t</i>
Step 1	.51	.26***					
Peer rejection				.06	.13	.03	.45
Parental attachment				-.07	.06	-.10	-1.08
Parental supervision				-.30	.10	-.27*	-3.20
Early life adversity				.77	.24	.25*	3.20
Step 2	.67	.45***	.189***				
Peer rejection				.15	.13	.08	1.17
Parental attachment				.02	.06	.03	.40
Parental supervision				-.13	.09	-.12	-1.53
Early life adversity				-.05	.26	-.02	-.18
No. of sentences				.32	.15	.17*	2.17
Criminal association				.14	.03	.34***	4.32
Criminal attitudes				-.18	.05	.27***	-3.75
Self-esteem				-.04	.07	-.04	-.52
Step 3	.68	.46	.007				
Peer rejection				.14	.13	.08	1.14
Parental attachment				.02	.06	.03	.38
Parental supervision				-.13	.09	-.11	-1.45
Early life adversity				-.08	.26	-.03	-.32
No. of sentences				.30	.15	.16*	2.06
Criminal association				.13	.03	.32***	3.94
Criminal attitudes				-.18	.05	-.27***	-3.73
Self-esteem				-.03	.08	-.03	-.38
Psychopathy				.15	.11	.10	1.43

Note. Statistical significance: * $p < .05$; ** $p < .01$; *** $p < .001$

Hierarchical multiple regression analysis predicting in-group affect

Hierarchical multiple regression was performed to investigate the ability of psychosocial components to predict levels of in-group affect, after controlling for early life factors (peer, rejection, parental attachment, parental supervision and early life adversity), influence of criminal environment (no. of sentences, criminal attitudes, self-esteem and criminal association) and personality factors (psychopathy). Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. Additionally, the correlations amongst the predictor variables (peer rejection, parental attachment, parental supervision, early life adversity, no. of sentences, criminal associations, criminal attitudes, self-esteem, and psychopathy) were examined and these are presented in Table 2. All correlations were weak to moderately-strong ranging between $r = .10$ to $-.58$. This indicates that multicollinearity was unlikely to be a problem (see Tabachnick & Fidell, 2013). All PVs with the exceptions of self-esteem and peer rejection were correlated with in-group affect which indicates that the data was suitable for multiple linear regression analysis.

In the first step of hierarchical multiple regression, four predictors were entered: peer rejection, parental attachment, parental supervision, and early life adversity. This model was statistically significant $F(4, 153) = 13.54$; $p < .001$ and explained 26% of variance in in-group affect (Table 4). After the entry of criminal influences (no. of sentences, criminal attitudes, self-esteem and criminal association) at Step 2 the total variance explained by the model was 48% ($F(8, 149) = 17.33$; $p < .001$). The introduction of criminal influences explained an additional 22% variance in in-group affect scores, after controlling for peer rejection, parental attachment, parental supervision, and early life adversity ($R^2 \text{ Change} = .221$; $F(4, 149) = 15.86$; $p < .001$). After the entry of personality factors (psychopathy) at Step 3 the total variance explained by the model was 49% ($F(9, 148) = 15.66$; $p < .001$). The introduction of personality factors explained an additional 1% variance in in-group affect scores, after controlling for peer rejection, parental attachment, parental supervision, and early life adversity, no. of sentences, criminal attitudes, self-esteem and criminal association ($R^2 \text{ Change} = .006$; $F(1, 148) = 1.69$; $p = .195$).

In the final model two predictor variables uniquely predicted higher levels of in-group affect however, criminal attitudes was found to have the strongest effect (see Table 4 for full results).

Table 4. Hierarchical regression model predicting In-group Affect

	<i>R</i>	<i>R</i> ²	<i>R</i> ² <i>Change</i>	<i>B</i>	<i>SE</i>	<i>β</i>	<i>t</i>
Step 1	.51	.26***					
Peer Rejection				-.07	.13	-.04	-.52
Parental Attachment				-.12	.06	-.17	-1.90
Parental Supervision				-.30	.01	-.27*	-3.23
Early Life Adversity				.61	.24	.20*	2.59
Step 2	.67	.45***	.189***				
Peer Rejection				-.02	.12	-.01	-1.15
Parental Attachment				-.03	.06	-.04	-.51
Parental Supervision				-.12	.08	-.11	-1.40
Early Life Adversity				-.12	.25	-.04	-.50
No. of sentences				.22	.14	.12	1.52
Criminal Association				.14	.03	.33***	4.28
Criminal attitudes				-.24	.05	.36***	-5.15
Self-esteem				-.00	.07	-.00	-.01
Step 3	.68	.46	.006				
Peer Rejection				-.02	.12	-.01	-.18
Parental Attachment				.03	.06	.04	-.53
Parental Supervision				-.11	.08	-.10	-1.33
Early Life Adversity				-.15	.25	-.05	-.62
No. of sentences				.20	.14	.10	1.41
Criminal Association				.13	.03	.31***	3.93
Criminal attitudes				-.24	.05	-.36***	-5.13
Self-esteem				.01	.07	.01	.12
Psychopathy				.13	.10	.09	1.30

Note. Statistical significance: * $p < .05$; ** $p < .01$; *** $p < .001$

Hierarchical multiple regression analysis predicting in-group ties

Hierarchical multiple regression was performed to investigate the ability of psychosocial components to predict levels of in-group ties, after controlling for early life factors (peer, rejection, parental attachment, parental supervision and early life adversity), criminal influences (no. of sentences, criminal attitudes, self-esteem and criminal association) and personality factors (psychopathy). Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. Additionally, the correlations amongst the predictor variables (peer rejection, parental attachment, parental supervision, early life adversity, no. of sentences, criminal associations, criminal attitudes, self-esteem, and psychopathy) were examined and these are presented in Table 2. All correlations were weak to moderately-strong ranging between $r = .08$ to $.60$. This indicates that multicollinearity was unlikely to be a problem (see Tabachnick & Fidell, 2013). All PVs with the exception of self-esteem and peer rejection were correlated with in-group ties which indicates that the data was suitable for multiple linear regression analysis.

In the first step of hierarchical multiple regression, four predictors were entered: peer rejection, parental attachment, parental supervision, and early life adversity. This model was statistically significant $F(4, 153) = 17.81$; $p < .001$ and explained 32% of variance in in-group ties (Table 5). After the entry of criminal influences (no. of sentences, criminal attitudes, self-esteem and criminal association) at Step 2 the total variance explained by the model was 52% ($F(8, 149) = 19.83$; $p < .001$). The introduction of criminal influences explained an additional 20% variance in in-group ties scores, after controlling for peer rejection, parental attachment, parental supervision, and early life adversity ($R^2 \text{ Change} = .197$; $F(4, 149) = 15.19$; $p < .001$). After the entry of personality factors (psychopathy) at Step 3 the total variance explained by the model was 53% ($F(9, 148) = 18.22$; $p < .001$). The introduction of personality factors explained an additional 1% variance in in-group ties scores, after controlling for peer rejection, parental attachment, parental supervision, and early life adversity, no. of sentences, criminal attitudes, self-esteem and criminal association ($R^2 \text{ Change} = .010$; $F(1, 148) = 3.11$; $p = .080$).

In the final model three predictor variables uniquely predicted higher levels of in-group ties however, criminal attitudes was found to have the strongest effect (see Table 5 for full results).

Table 5. Hierarchical regression model predicting in-group ties

	<i>R</i>	<i>R</i> ²	<i>R</i> ² <i>Change</i>	<i>B</i>	<i>SE</i>	β	<i>t</i>
Step 1	.56	.32***					
Peer rejection				-.13	.14	-.07	-.96
Parental attachment				-.13	.07	-.16	-1.90
Parental supervision				-.36	.10	-.30***	-3.66
Early life adversity				.85	.25	.26**	3.42
Step 2	.72	.52***	.20***				
Peer rejection				-.06	.13	.03	-.46
Parental attachment				-.03	.06	-.03	-.44
Parental supervision				-.17	.09	-.14	-1.91
Early life adversity				-.04	.26	-.01	.16
No. of sentences				.37	.15	.18*	2.25
Criminal association				.16	.03	.34***	4.63
Criminal attitudes				-.21	.05	.29***	-4.25
Self-esteem				-.00	.08	-.00	-.05
Step 3	.73	.53	.01				
Peer Rejection				-.07	.13	-.03	-.51
Parental Attachment				-.03	.06	.03	-.46
Parental Supervision				-.16	.09	-.13	-1.81
Early Life Adversity				-.09	.26	-.03	-.33
No. of sentences				.35	.15	.17*	2.33
Criminal Association				.14	.03	.32***	4.20
Criminal attitudes				-.21	.05	-.29***	-4.24
Self-esteem				.02	.08	-.01	-.22
Psychopathy				.19	.11	.11	1.76

Note. Statistical significance: * $p < .05$; ** $p < .01$; *** $p < .001$

Binary logistic regression analysis predicting sexual offending

Binary logistic regression was performed to assess how well a model with eleven factors including number of parents raised by, cognitive centrality, in-group affect, in-group ties, self-esteem, peer rejection, parental attachment, parental supervision, criminal attitudes, criminal associations and early life adversity could predict committing a sexual offence.

The full model containing all predictors was statistically significant, $\chi^2 (11, 156) = 82.336, p < .001$. The model as a whole explained between 41% (Cox and Snell) and 57% (Nagelkerke) of the variance in belonging to the sexual offending group. The model demonstrated good overall predictive validity (80%), and demonstrated satisfactory sensitivity (71%) and specificity (84%).

As can be seen in Table 6, three predictor variables made a unique statistically significant contribution to the predicting sexual offending. Self-esteem recorded an odds ratio (OR) of 1.17 (95% CI = 1.03 – 1.33), peer rejection recorded an OR of 1.27 (95% CI = 1.04 – 1.56), and criminal associations recorded an OR of 1.13 (95% CI = .83 – 1.08). Increased levels of peer rejection were associated with an increased likelihood to commit a sexual offence, while decreased levels of both criminal associations and self-esteem were associated with an increased likelihood to commit a sexual offence.

Table 6.

Binary logistic regression analysis predicting likelihood to commit a sexual offence

Variable	B	SE	Wald	P	OR (95% CI)
Raised by (both parents)	1.01	.71	2.05	.153	2.74 (.69 / 10.95)
Cognitive centrality	.12	.10	1.51	.219	1.13 (.93 / 1.37)
In-group affect	-.12	.10	1.22	.269	1.12 (.73 / 1.09)
In-group ties	-.05	.08	.35	.555	1.05 (.82 / 1.11)
Self-esteem	.16	.07	5.77	.016	1.17 (1.03 / 1.33)
Peer rejection	.24	.10	5.31	.021	1.27 (1.04 / 1.56)
Parental attachment	.02	.04	.36	.551	1.02 (.95 / 1.11)
Parental supervision	-.03	.06	.29	.591	1.03 (.86 / 1.09)
Criminal attitudes	.03	.03	.75	.388	1.03 (.97 / 1.10)
Criminal associations	-.12	.04	11.43	.001	1.13 (.83 / 1.08)
Early life adversity	-.28	.18	2.36	.124	1.40 (.53 / 1.08)

Note. B = unstandardized Beta value; SE = standard error for B; P = statistical significance, OR (95% CI) = odds ratio with 95% confidence interval.

Discussion

The primary aim of the current study sought to empirically investigate the role of the (IPM-CSI) by exploring, simultaneously, the valance of psychosocial factors in the development of criminal social identity. The impetus behind this objective was derived from suggestions made by Boduszek, Dhingra and Debowska (2016) which stated that psychosocial factors should be investigated simultaneously. Thus, the researcher endeavoured the task of determining which factors best predict the three-factor model of CSI. In addition, there was a dearth of empirical findings related to the validity of the IPM-CSI, nevertheless the rationale was aptly grounded considering there is a large repertoire of research suggesting that the four components of the IPM-CSI (identity crises, exposure to criminal environment, self-esteem and personality moderators) are related to increased levels of criminal behaviour (Boduszek at al., 2013; Boduszek, Dhingra & Debowska, 2016; Sherrets & Wilmott, 2016; Shagufta et al., 2015a). No hypothesis were offered, instead an exploratory analysis investigated the percent of variance explained by the model, the reliability of the model, and the unique predictability of each psychosocial factor on the three-factor model of CSI, while controlling for early life factors (peer, rejection, parental attachment, parental supervision and early life adversity), exposure to criminal environment (no. of sentences, criminal attitudes, self-esteem and criminal association) and personality factors (psychopathy). The research was therefore undertaken to contribute to the theory of criminal social identity.

A secondary aim sought to explore the predictive ability of the IPM-CSI in explaining sexual offending. No study hitherto had examined the role of the IPM-CSI in sexual offending. Therefore, the study set about preforming a preliminary investigation to aid future research.

Psychosocial factors predicting cognitive centrality

The study aimed to investigate the impact of psychosocial factors on their ability to predict cognitive centrality. As previously mentioned in the literature review, cognitive centrality relates to the importance of group belongingness; how the individual consciously affiliates with the group ideals (Boduszek, Dhingra & Debowska, 2016).

In the final model, results from the Hierarchical Multiple Regression found that number of criminal sentences, criminal associations and criminal attitudes were significant predictors of cognitive centrality, with criminal associations being the

strongest predictor. These findings are interesting since all three said predictors are related to exposure to a criminal environment. Moreover, the said findings suggest that a history of criminal behaviour is a determinant of cognitive centrality, a factor which has been shown to be associated with a greater propensity to engage in crime (Boduszek at al., 2012; Boduszek at al., 2013; Boduszek, O'Shea, Dhingra & Hyland, 2014; Shagufta et al., 2015a; Shagufta et al., 2015b; Sherretts, Boduszek, & Dobowska, 2016). In addition, the findings demonstrate, that interacting with criminal peers is associated with higher levels of cognitive centrality. CSI theory would suggest that greater interaction with criminal peers reinforces the value of group ideations, thus the group ideal becomes the centre-point of the individual's self-concept, as the individual may consciously evaluate events based upon their orientation within the group. The group in this instance represents members of the criminal environment. In addition, these findings are consistent with other research. For instance, Boduszek et al. (2013) found that associating with criminal peers was highly correlated with cognitive centrality, while Mills, Anderson and Kroner (2004) found that criminal affiliation was associated with a greater number of criminal friends. Moreover, criminal attitudes was shown to be a predictor of cognitive centrality. Therefore, the assumption may be made, that the more favourably the criminal views other in-group members the more likely they are to endorse a favourable opinion of the criminal group. For instance, this finding suggests that part of the way the criminals think about themselves, about other criminals, and about non-criminals is influenced by how central their cognitions are oriented towards a sense group belongingness. Lastly, number of criminal sentences was associated with greater levels of cognitive centrality. This suggests that for every additional sentence the criminal commits he becomes more likely to endorse thoughts and beliefs related to group affiliation.

To summarise, these findings suggest that associating with criminals, committing criminal offences and endorsing criminal attitudes are each related to cognitive centrality, a construct which has been shown to be related to greater levels of criminal behaviour. It further suggests that associating with other criminals develops a strong sense of belongingness between the criminal and other in-group members.

Psychosocial factors predicting in-group affect

The study also aimed to investigate the impact of psychosocial factors on their ability to predict in-group affect. As previously mentioned, in-group affect refers to the

strength of emotional attachment one obtains from group membership (Boduszek, Dhingra & Debowska, 2016).

Through the use of a Hierarchical Multiple Regression, it was found that criminal associations and criminal attitudes were the only statistically significant predictors of in-group affect, with criminal attitudes being the strongest predictor. Both these findings are consistent with previous research, suggesting that exposure to a criminal environment is associated with criminal behaviour (Holsinger, 1999). In addition, Boduszek et al. (2013) found a direct effect between criminal friends and in-group affect. In reference to CSI theory, the said findings suggest that criminals develop an emotional attachment by associating with other criminals, and furthermore by adopting a favourable attitude towards in-group members and a less favourable attitude towards out-group members. For such individuals, associating with criminals may positively reinforce a sense of affective congruence. Furthermore, both criminal associations and criminal attitudes were highly correlated with in-group affect. This suggests, that through association with other criminals and endorsing criminal attitudes, the individual develops an affective attachment to other in-group members. Furthermore, CSI theory would suggest that greater levels of criminal association and criminal attitudes permit the criminal to view themselves more conventionally, or at least with justification, which in turn reduces levels of anxiety and promotes more positive feelings towards other in-group criminals (Boduszek et al., 2013)

Psychosocial factors predicting in-group ties

The study further aimed to investigate the impact of psychosocial factors on their ability to predict in-group ties. As previously mentioned in the literature review, in-group ties refers to the perceived emotional and psychological connectivity and conformity between the individual and the group (Boduszek, Dhingra & Debowska, 2016).

Through the use of a Hierarchical Multiple Regression, it was found that number of sentences, criminal associations and criminal attitudes were all statistically significant predictors of in-group ties, with criminal associations being the strongest predictor. These findings suggest that exposure to criminal peers is associated with higher levels of connectivity between the individual and in-group members, and furthermore, that associating with criminal peers is the most significant factor in developing a strong sense of in-group ties. This finding in particular is consistent with previous research findings (Boduszek et al., 2013). In addition, it suggests that

association with criminal peers may be a determinant of in-group conformity. A possible factor mediating this process may be a positive sense of emotional connectivity to other in-group members. It could be further suggested that interactions with criminal peers and development of criminal attitudes in part fosters feelings of connectivity with other in-group members who assert similar ideals. Furthermore, a greater number of criminal sentences was associated with greater levels of in-group ties. In essence, a higher number of criminal sentences, elevated levels of criminal attitudes and greater time spent with criminal peers were each shown to be determinants of in-group ties – a factor of CSI which has been shown to be associated with a greater propensity to engage in crime (Boduszek et al., 2012; Boduszek et al., 2013; Boduszek, O'Shea, Dhingra & Hyland, 2014; Shagufta et al., 2015a; Shagufta et al., 2015b; Sherretts, Boduszek, & Dobowska, 2016).

Implications, limitations and future research

Overall, the IPM-CSI displayed good reliability which was assessed using Cronbach's Alpha. Moreover, both the three-factor model of CSI and the psychosocial achieved very good reliability scores. This suggests that the model was consistently measuring the correct variables. In addition, the findings revealed that factors related to exposure to criminality were the strongest predictors of developing a sense of criminal social identity even when controlling for the effect of early life events and the influence of psychopathy traits. This is perhaps surprising since there is a plethora of research suggesting that the adverse influence of early life factors is most predictive of criminal conduct in later years (Shader, 2001; Pratt & Cullen, 2005; Lee, 2000; Haapasalo & Pokela, 1999; Widom, 1989). Yet to the contrary the current study found early life events to be weak predictors of all three factors of CSI. Moreover, the study emphasizes the impact of both social and cognitive factors in the development of CSI. Furthermore, it could be suggested that the findings show evidence of modelling behaviour and identity depolarization, which strongly supports the theoretical framework of both Social Identity Theory (SIT) and of Self Categorization Theory (SCT) – theories used in the development of CSI theory.

There are a number of implications to be drawn from this study, namely, that endorsing criminal attitudes and associating with criminal friends are determinants of all three factors of CSI. Therefore, policy-makers and rehabilitation officers may look towards designing programs that thwart the development of criminal social identity,

and furthermore, researchers may further investigate the factors that mediate the development of criminal attitudes and associating with criminal friends. In a sense, the findings suggest that CSI may be the undercover nexus between the individual and a criminal offence, and it could be further suggested, that the mechanism by which this process operates, seeks to achieve congruence between the individual and other in-group members – meaning, the individual thinks, feels and behaves in ways that are favourable to the group. Thus, in addition to a personal identity, the individual develops a criminal social identity. Therefore, future research may conduct qualitative analyses to better explore this unique dichotomous identity.

It should be noted that the suggestions made throughout this discussion hitherto are inferences based on the current research findings in context to CSI theory, therefore all interpretations drawn from this study should be considered within the confines of criminal social identity theory. Moreover, the study is not without limitations. It was an exploratory study that aimed to augment our understanding of criminal social identity. Therefore, all findings are a preliminary benchmark for future research. In addition, the sample of prisoners used in the study were mostly recruited through the prison workshops, and to paraphrase words opined by the industrial manager of the prison: ‘Workshop attendance is indicative of prisoners who display a greater willingness to participate’. Therefore, the current sample may not be wholly representative of the prison population, and furthermore it is unknown whether the results are generalizable to other prisoners in the republic of Ireland or further afield. The current sample may have failed to represent prisoners who are less compliant and exhibit a disinterest in prison workshops and vocational units. Additionally, almost one in three participants had committed a sexual offence, and given the knowledge that sexual offenders are a distinct population within the criminal constellation (Seto and Lalumiere, 2010) the findings may not accurately capture a general model of criminal diversity. Moreover, all participants were male, and therefore the findings may not be generalizable to female populations.

Another limitation relates to the self-report nature of the measurements. This therefore calls into question whether responses were a true representation of the participants views or whether responses were in some respect biased. For instance, responses may have been socially desirable rather than honest. However, the latter statement is conjectural, and furthermore, it is impossible to tell. Conclusions drawn

from the study should bear this in mind, yet also be aware that this aspect of the study was difficult to control for.

Future research may aim to further investigate the IPM-CSI using a more diverse sample of criminals, a larger sample size, and furthermore to investigate the unique role of different offender types and how each relate to the three-factor model of CSI.

The impact of the IPM-CSI in predicting sexual offending

As previously mentioned, a secondary aim of the study sought to explore the predictive ability of the IPM-CSI in explaining sexual offending.

Initial investigations revealed that only three factors were significantly associated with likelihood to commit a sexual offence. These factors included higher levels of peer rejection, and lower levels of both self-esteem and criminal associations. Most notably however, each statistically significant predictor revealed small odds ratios, especially when viewed in context to the mean, SD and range. For instance, peer rejection revealed the largest odds ratio – a one-unit increase on the peer rejection scale makes a person one and a quarter times more likely to commit a sexual offence. This is perhaps a weak increase considering the SD on the peer rejection measure was 3 units. The odds ratios for self-esteem and criminal associations were even weaker, especially when viewed in context to the means and SD's which were considerably larger.

The findings revealed that experiencing higher levels peer rejection was associated with greater likelihood to commit a sexual offence. This finding is consistent with previous research. For instance, Miner and Munns (2005) also found an association between experiencing peer rejection and sexual offending in adulthood, while Ronis and Borduin (2007) found that sex offenders had weaker and more disturbed associations with peers. This suggests that peer rejection is a possible risk factor for likelihood to commit a sexual offence, and therefore has implications for both policy-makers and members of educational faculties.

Additionally, lower levels of self-esteem was shown to be a significant predictor of sexual offending, and this finding is congruent with a vast amount of prior research (Shine, McCloskey & Newton, 2002; Fisher, Beech & Browne, 1999; Monto, Zgourides & Harris, 1998). In addition, Marshall and colleagues (1997) suggests that sexual offenders, in general, suffer from lower levels of self-esteem. Therefore, the

current findings, in conjunction with previous research, suggests that lower levels of self-esteem is a risk factor for likelihood to commit a sexual offence.

The current findings further revealed that lower levels of criminal associations was a determinant of sexual offending. This suggests that sexual offenders have less criminal peer associates, and spend less time with criminals. Moreover, this finding is consistent with results from a meta-analysis conducted by Mills, Anderson and Kroner (2004) which found that sexual offenders reported associating with fewer criminal peers compared to non-sexual offenders. A possible reason for this may be that sexual offenders do not view themselves as criminals. According to Polaschek and Gannon (2004) sexual offenders endorse a number of implicit theories, and denial and entitlement schemas to thwart their acknowledgement of wrongdoing. Therefore, sexual offenders may report less association with other criminals based on the assumption that they do not view themselves as similarly oriented.

Taken together, these findings somewhat fail to indicate a prominent predictor of one's likelihood to commit a sexual offence. Furthermore, it could be suggested that the current study lacked a desirable degree of power due to the small sample size. For instance, Hosmer and Lemeshow (2000) recommend that sample sizes be greater than four hundred participants when conducting a binary logistic regression, and given that the current study only achieved a sample size of less than half that figure, it may therefore have lacked sufficient power during the statistical analyses. This may be evident with *the number of parents raised by* variable, which was not a statistically significant predictor of sexual offending yet yielded an odds ratio of almost 3. This may be due to a type two error, but more interestingly, to put that figure in perspective, it suggests that being raised by both parents is associated with an almost three-fold increase in one's likelihood to commit a sexual offence. Moreover, this finding is congruent with previous research findings. For instance, Becker and Johnson (2001) found that almost three out of four sexual offenders come from a two-parent home.

Additionally, the findings demonstrated that parental attachment was a poor predictor of sexual offending, which is incongruent with Marshall's (2010) finding, suggesting that poor parental attachment is the basis of sexual offending. Furthermore, the three-factor model of CSI did not make a statistically significant contribution to likelihood to commit a sexual offence.

Implication, limitations and future research

As with all research there are a number of limitations to be considered in light of the research findings. As previously mentioned the sample size failed to meet the recommended criteria for conducting a binary logistic which was set by Hosmer and Lameshow (2000). In addition, the term sexual offender relates to a broad range of offences and the current study failed to make a distinction between the different types of sexual offenders. This was a particularly important limitation considering there is a large variety among sexual offenders (Bartol & Bartol, 2011). The research may have benefited from a more in-depth design, by giving participants the opportunity to make the distinction between different sexual offence types. Furthermore, and perhaps the biggest limitation of the current study, in regards to sexual offending, was disposing of all questions related to sexual abuse, since there is empirical evidence to suggest that sexual abuse victims have an increased risk at becoming perpetrators (Glasser et al., 2001; Salter et al., 2003; Jesperen, Lalumière & Seto, 2009). However, due to ethical issues this aspect of the study was a mandatory slight.

In addition, future research may aim to investigate the validity if the IPM-CSI, in explaining sexual offending, on different sexual offender types i.e. rapists, paedophiles. Moreover, future research may also aim to obtain a larger sample size to reduce the impact of type two errors.

Conclusion

In conclusion, this study was the first to empirically investigate the validity of the IPM-CSI. Moreover, it expanded the literature of the IPM-CSI, and provided a preliminary analysis by investigating the role of psychosocial factors in explaining the three-factor model of CSI. Therefore, the current study aimed to set a precedent for future research. In addition, the current study aimed to investigate the determinants of sexual offending by using factors related to the IPM-CSI – an endeavour which also was the first of its kind.

The findings of the study demonstrated the importance of criminal associations and the role of the criminal environment in the development of CSI. This is perhaps not a surprising finding, but more so stresses the egregious impact of the said variables on the person's behaviour, since greater levels of CSI has been shown to be related to enhanced levels of criminal behaviour. Moreover, the model explained almost half the

variance of CSI, a figure on which future research may aim to expand upon. In essence, the current study demonstrates the impact of environmental influences on subsequent behaviour.

Finally, the study also found that the three-factor model of CSI was not a statically significant predictor of likelihood to commit a sexual offence. Nevertheless, higher levels of peer rejection, and lower levels of both self-esteem and criminal association were significant, however each of the three said variables revealed small odds ratios.

The researcher hopes that the findings of the study augments our understanding of criminal behaviour and thus aids policy makers in the development of amelioration and rehabilitation programs by highlighting the determinants of both CSI and sexual offending.

References

- Anderson, D. A. (1999). The aggregate burden of crime*. *The Journal of Law and Economics*, 42(2), 611-642.
- Andrews, D. A., Bonta, J., & Wormith, J. S. (2006). The recent past and near future of risk and/or need assessment. *Crime & Delinquency*, 52(1), 7-27.
- Bartol, C. R., & Bartol, A. M. (2011). Introduction to forensic psychology: *Research and application*. Sage.
- Becker, J. V., & Johnson, B. R. (2001). Treating juvenile sex offenders.
- Boduszek, D., & Hyland, P. (2011). The theoretical model of criminal social identity: Psycho-social perspective. *International Journal of Criminology and Sociological Theory*, 4(1), 604-615.
- Boduszek, D., Adamson, G., Shevlin, M., & Hyland, P. (2012). Development and validation of a measure of criminal social identity within a sample of polish recidivistic prisoners. *Criminal Behaviour and Mental Health*, 22(5), 315-324.
- Boduszek, D., Adamson, G., Shevlin, M., Hyland, P., & Bourke, A. (2013). The role of criminal social identity in the relationship between criminal friends and criminal thinking style within a sample of recidivistic prisoners. *Journal of Human Behavior in the Social Environment*, 23(1), 14-28.
- Boduszek, D., Dhingra, K., & Debowska, A. (2016). The integrated psychosocial model of criminal social identity (IPM-CSI). *Deviant behavior*, 37(9), 1023-1031.
- Boduszek, D., Debowska, A., Dhingra, K., & DeLisi, M. (2016). Introduction and validation of Psychopathic Personality Traits Scale (PPTS) in a large prison sample. *Journal of Criminal Justice*, 46, 9-17.

- Boduszek, D., O'Shea, C., Dhingra, K., & Hyland, P. (2014). Latent class analysis of criminal social identity in a prison sample. *Polish Psychological Bulletin*, 45(2), 192-199.
- Boduszek, D. *The Revised measure of Criminal Social identity (RVCSI)*. Unpublished Measure.
- Boduszek, D. *Measure of In-group Out-group Attitudes*. Unpublished Measure.
- Boduszek, D. *Measure of Parental Attachment*. Unpublished Measure.
- Booth, A. L., & Stinson PhD, J. D. (2015). Effects of Adverse Childhood Experiences on High Risk Inpatients Criminal Behavior.
- Box, S., Hale, C., & Andrews, G. (1988). Explaining fear of crime. *British Journal of Criminology*, 28(3), 340-356.
- Cameron, J. E. (2004). A three-factor model of social identity. *Self and identity*, 3(3), 239-262.
- Central Statistics Office. (2016a). Crime – Recorded Crime Offences [Web log post]. Retrieved from <http://www.cso.ie/multiquicktables/quickTables.aspx?id=cja01>
- Central Statistics Office. (2016b). Prison Recidivism – 2010 Cohort [Web log post]. Retrieved from <http://www.cso.ie/multiquicktables/quickTables.aspx?id=cja01>
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2013). *Applied multiple regression/correlation analysis for the behavioral sciences*. Routledge.
- Debowska, A., Boduszek, D., Dhingra, K., & DeLisi, M. (2016). The effect of male incarceration on rape myth acceptance: Application of propensity score matching technique. *Deviant Behavior*, 37(6), 634-643.
- Debowska, A., Boduszek, D., Dhingra, K., Kola, S., & Meller-Prunska, A. (2015). The role of psychopathy and exposure to violence in rape myth acceptance. *Journal of interpersonal violence*, 30(15), 2751-2770.

- Debowska, A., Boduszek, D., & Sherretts, N. (2016). Self-esteem in adult prison population: The development and validation of the Self-Esteem Measure for Prisoners (SEM-P). *Deviant Behavior*, 1-12.
- Debowska, A., Boduszek, D., & Willmott, D. (2016). Psychosocial correlates of attitudes towards male sexual violence in a sample of financial crime, property crime, general violent, and homicide offenders. *Sexual Abuse: A Journal of Research and Treatment*.
- Driessen, M., Schroeder, T., Widmann, B., von Schonfeld, C., & Schneider, F. (2006). Childhood trauma, psychiatric disorders, and criminal behavior in prisoners in Germany: a comparative study in incarcerated women and men. *Journal of Clinical Psychiatry*, 67(10), 1486-1492.
- Ellemers, N., Kortekaas, P., & Ouwerkerk, J. W. (1999). Self-categorisation, commitment to the group and group self-esteem as related but distinct aspects of social identity. *European journal of social psychology*, 29(23), 371-389.
- Farrington, D. P. (2005). Childhood origins of antisocial behavior. *Clinical Psychology & Psychotherapy*, 12(3), 177-190.
- Fisher, D., Beech, A., & Browne, K. (1999). Comparison of sex offenders to nonoffenders on selected psychological measures. *International Journal of Offender Therapy and Comparative Criminology*, 43(4), 473-491.
- Gendreau, P., Little, T., & Goggin, C. (1996). A meta-analysis of the predictors of adult offender recidivism: What works!. *Criminology*, 34(4), 575-608.
- Gilbert, R., Widom, C. S., Browne, K., Fergusson, D., Webb, E., & Janson, S. (2009). Burden and consequences of child maltreatment in high-income countries. *The lancet*, 373(9657), 68-81.

- Glasser, M., Kolvin, I., Campbell, D., Glasser, A., Leitch, I., & Farrelly, S. (2001). Cycle of child sexual abuse: Links between being a victim and becoming a perpetrator. *The British Journal of Psychiatry*, 179(6), 482-494.
- Haapasalo, J., & Pokela, E. (1999). Child-rearing and child abuse antecedents of criminality. *Aggression and violent behavior*, 4(1), 107-127.
- Higgins, G. E., Piquero, N. L., & Piquero, A. R. (2010). General strain theory, peer rejection, and delinquency/crime. *Youth & Society*.
- Hildyard, K. L., & Wolfe, D. A. (2002). Child neglect: developmental issues and outcomes☆. *Child abuse & neglect*, 26(6), 679-695.
- Holsinger, A. M. (1999). Assessing criminal thinking: Attitudes and orientations influence behavior. *Corrections Today*, 61, 22-25.
- Hosmer, D. W., & Lemeshow, S. (2000). Interpretation of the fitted logistic regression model. *Applied Logistic Regression, Second Edition*, 47-90.
- Ingram, J. R., Patchin, J. W., Huebner, B. M., McCluskey, J. D., & Bynum, T. S. (2007). Parents, friends, and serious delinquency an examination of direct and indirect effects among at-risk early adolescents. *Criminal justice review*, 32(4), 380-400.
- Jackson, J. W. (2002). Intergroup attitudes as a function of different dimensions of group identification and perceived intergroup conflict. *Self and identity*, 1(1), 11-33.
- Jespersen, A. F., Lalumière, M. L., & Seto, M. C. (2009). Sexual abuse history among adult sex offenders and non-sex offenders: A meta-analysis. *Child abuse & neglect*, 33(3), 179-192.

- Keijsers, L., Branje, S., Hawk, S. T., Schwartz, S. J., Frijns, T., Koot, H. M., ... & Meeus, W. (2012). Forbidden friends as forbidden fruit: Parental supervision of friendships, contact with deviant peers, and adolescent delinquency. *Child development, 83*(2), 651-666.
- Kyckelhahn, T. (2011). Justice expenditures and employment, FY 1982–2007—statistical tables. *Bureau of Justice Statistics. Washington, DC: US Department of Justice.*
- Laird, R. D., Jordan, K. Y., Dodge, K. A., Pettit, G. S., & Bates, J. E. (2001). Peer rejection in childhood, involvement with antisocial peers in early adolescence, and the development of externalizing behaviour problems. *Development and psychopathology, 13*(02), 337-354.
- Lee, M. R. (2000). Concentrated poverty, race, and homicide. *The Sociological Quarterly, 41*(2), 189-206.
- Lipsey, M. W., & Cullen, F. T. (2007). The effectiveness of correctional rehabilitation: A review of systematic reviews. *Annu. Rev. Law Soc. Sci., 3*, 297-320.
- Lyn, T. S., & Burton, D. L. (2004). Adult attachment and sexual offender status. *American journal of orthopsychiatry, 74*(2), 150.
- Manly, J. T., Oshri, A., Lynch, M., Herzog, M., & Wortel, S. (2013). Child neglect and the development of externalizing behavior problems: Associations with maternal drug dependence and neighborhood crime. *Child maltreatment, 18*(1), 17-29.
- Marshall, W. L. (2010). The role of attachments, intimacy, and loneliness in the etiology and maintenance of sexual offending. *Sexual and Relationship Therapy, 25*(1), 73-85.

- Marshall, W. L., & Barbaree, H. E. (1990). An integrated theory of the etiology of sexual offending. *Handbook of sexual assault: Issues, theories, and treatment of the offender*, 257-275.
- Marshall, W. L., Anderson, D., & Champagne, F. (1997). Self-esteem and its relationship to sexual offending: Invited Article. *Psychology, Crime and Law*, 3(3), 161-186.
- Mikami, A. Y., Boucher, M. A., & Humphreys, K. (2005). Prevention of peer rejection through a classroom-level intervention in middle school. *Journal of Primary Prevention*, 26(1), 5-23.
- Miller, T. R., Cohen, M. A., & Rossman, S. B. (1993). Victim costs of violent crime and resulting injuries. *Health Affairs*, 12(4), 186-197.
- Miller, T. R., Cohen, M. A., & Wiersema, B. (1995). Crime in the United States: Victim costs and consequences. *Unpublished manuscript, Department of Justice: Office of Justice Programs*.
- Miller-Johnson, S., Coie, J. D., Maumary-Gremaud, A., & Bierman, K. (2002). Peer rejection and aggression and early starter models of conduct disorder. *Journal of abnormal child psychology*, 30(3), 217-230.
- Mills, J. F., Anderson, D., & Kroner, D. G. (2004). The antisocial attitudes and associates of sex offenders. *Criminal Behaviour and Mental Health*, 14(2), 134-145.
- Mills, J. F., & Kroner, D. G. (1999). Measures of criminal attitudes and associates: User guide. *Unpublished instrument and user guide*.
- Mills, J. F., Kroner, D. G., & Hemmati, T. (2004). The measures of criminal attitudes and associates (MCAA) the prediction of general and violent recidivism. *Criminal Justice and Behavior*, 31(6), 717-733.

- Miner, M. H., & Munns, R. (2005). Isolation and normlessness: Attitudinal comparisons of adolescent sex offenders, juvenile offenders, and nondelinquents. *International Journal of Offender Therapy and Comparative Criminology*, 49(5), 491-504.
- Monto, M., Zgourides, G., & Harris, R. (1998). Empathy, self-esteem, and the adolescent sexual offender. *Sexual Abuse: A Journal of Research and Treatment*, 10(2), 127-140.
- Porter, S., Campbell, M. A., Woodworth, M., & Birt, A. R. (2001). A new psychological conceptualization of the sexual psychopath. *Advances in psychology research*, 7(2), 21-36.
- Porter, S., Fairweather, D., Drugge, J., Hervé, H., Birt, A., & Boer, D. P. (2000). Profiles of psychopathy in incarcerated sexual offenders. *Criminal Justice and Behavior*, 27(2), 216-233.
- Polaschek, D. L., & Gannon, T. A. (2004). The implicit theories of rapists: What convicted offenders tell us. *Sexual Abuse: A Journal of Research and Treatment*, 16(4), 299-314.
- Pratt, T. C., & Cullen, F. T. (2005). Assessing macro-level predictors and theories of crime: A meta-analysis. *Crime and justice*, 373-450
- Riley, J. R., & Masten, A. S. (2005). Resilience in context. In Resilience in children, families, and communities (pp. 13-25). *Springer US*.
- Ronis, S. T., & Borduin, C. M. (2007). Individual, family, peer, and academic characteristics of male juvenile sexual offenders. *Journal of abnormal child psychology*, 35(2), 153-163.

- Salter, D., McMillan, D., Richards, M., Talbot, T., Hodges, J., Bentovim, A., & Skuse, D. (2003). Development of sexually abusive behaviour in sexually victimised males: a longitudinal study. *The Lancet*, 361(9356), 471-476.
- Serin, R. C., Mailloux, D. L., & Malcolm, P. B. (2001). Psychopathy, deviant sexual arousal, and recidivism among sexual offenders. *Journal of Interpersonal Violence*, 16(3), 234- 246.
- Seto, M. C., & Barbaree, H. E. (1999). Psychopathy, treatment behavior, and sex offender recidivism. *Journal of interpersonal violence*, 14(12), 1235-1248.
- Seto, M. C., & Lalumiere, M. L. (2010). What is so special about male adolescent sexual offending? A review and test of explanations through meta-analysis.
- Shader, M. (2001). Risk factors for delinquency: An overview. *US Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention*.
- Shagufta, S., Boduszek, D., Dhingra, K., & Kola-Palmer, D. (2015a). Latent classes of delinquent behaviour associated with criminal social identity among juvenile offenders in Pakistan. *Journal of Forensic Practice*, 17(2), 117-126.
- Shagufta, S., Boduszek, D., Dhingra, K., & Kola-Palmer, D. (2015b). Criminal social identity and suicide ideation among Pakistani young prisoners. *International journal of prisoner health*, 11(2), 98-107.
- Sherretts, N., Boduszek, D., & Debowska, A. (2016). Period of incarceration and criminal social identity: the moderating role of interpersonal manipulation psychopathy factor in a sample of adult prisoners. *Law and Human Behavior*, 40(4), 430-9.
- Sherretts, N., Willmott, D. (2016). Construct validity and dimensionality of the measure of criminal social identity using data drawn from American,

- Pakistani, and Polish inmates. *Journal of Criminal Psychology*, 6(3), 134-143.
- Shine, J., McCloskey, H., & Newton, M. (2002). Self-esteem and sex offending. *Journal of sexual aggression*, 8(1), 51-61.
- Sutherland, E. H., Cressey, D. R., & Luckenbill, D. F. (1992). Principles of criminology. Rowman & Littlefield.
- Sutherland, E. H., Cressey, D. R., & Luckenbill, D. (1995). The theory of differential association. *Deviance: a symbolic interactionist approach*. General Hall, Lanham, 64-68.
- Tabachnick, B. G., Fidell, L. S., & Osterlind, S. J. (2001). Using multivariate statistics.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. *The social psychology of intergroup relations*, 33(47), 74.
- Teerikangas, O. M., Aronen, E. T., Martin, R. P., & Huttunen, M. O. (1998). Effects of infant temperament and early intervention on the psychiatric symptoms of adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, 37(10), 1070-1076.
- Thompson, R. A. (2000). The legacy of early attachments. *Child development*, 71(1), 145-152.
- Turk, A. T. (1964). Prospects for theories of criminal behavior. *The Journal of Criminal Law, Criminology, and Police Science*, 55(4), 454-461.
- Walters, G. D. (2003). Changes in criminal thinking and identity in novice and experienced inmates: Prisonization revisited. *Criminal Justice and Behavior*, 30(4), 399-421.
- Walters, G. D. (1995). The psychological inventory of criminal thinking styles Part I:

- reliability and preliminary validity. *Criminal Justice and Behavior*, 22(3), 307-325.
- Walters, G. D. (2012). Criminal thinking and recidivism: Meta-analytic evidence on the predictive and incremental validity of the Psychological Inventory of Criminal Thinking Styles (PICTS). *Aggression and Violent Behavior*, 17(3), 272-278.
- Walters, G. D., & Lowenkamp, C. T. (2016). Predicting recidivism with the Psychological Inventory of Criminal Thinking Styles (PICTS) in community-supervised male and female federal offenders. *Psychological assessment*, 28(6), 652.
- Ward, T., & Beech, A. (2006). An integrated theory of sexual offending. *Aggression and violent behavior*, 11(1), 44-63.
- Weaver, C. M., Borkowski, J. G., & Whitman, T. L. (2008). Violence breeds violence: Childhood exposure and adolescent conduct problems. *Journal of community psychology*, 36(1), 96-112.
- Widom, C. S. (1989). Child abuse, neglect, and violent criminal behavior. *Criminology*, 27(2), 251-271.
- Widom, C. S., & White, H. R. (1997). Problem behaviours in abused and neglected children grown up: prevalence and co-occurrence of substance abuse, crime and violence. *Criminal behaviour and mental health*, 7(4), 287-310.

Appendices

Appendix 1

Information Leaflet and Consent Form

Psychology department at The National College of Ireland

Project Title: Criminal Minds, Investigating the Integrated Psychosocial Model of Criminal Social Identity in an Irish Prison

Invitation: You are invited to participate in a study as part of an undergraduate thesis, which will assess levels of Criminal Social Identity. The following information provides an overview of the study. Please read all information provided before deciding whether or not to participate.

Objectives of the Study: The nature of the proposed study is to investigate the Integrated Psycho-social Model of Criminal Social Identity (IPM-CSI) in an Irish prison setting. Criminal Social Identity is a conceptual theory that determines how one's social identification and contact with criminal associates can influence their propensity to engage in criminal activity and thus increase the likelihood of recidivism.

The IPM-CSI attempts to recognize certain components that influence and affect the formation Criminal Social Identity. The first revised factor is identity crises, which is a combination of peer rejection, poor parental supervision and parental attachment. The second factor refers to one's exposure to a criminal environment and criminal associates. The third factor refers one's need for self-esteem which is garnered by group affiliation. The final factor concerns the personality traits of the individual, especially mal-adaptive traits such as psychopathy.

Ultimately, the main aim of the proposed study seeks to explore how the interplay of psycho-social factors influences the formation of Criminal Social Identity, and furthermore how Criminal Social Identity develops, maintains criminal behaviour and increases recidivism.

Why have I been asked to participate? The study aims to collect information from persons incarcerated in the Irish prison system. Therefore, your participation

What the Study Involves: The study requires participants to fill out a questionnaire that has been professionally designed to assess levels of Criminal Social Identity. Typically, the study takes between 20 to 30 minutes. Participants will be given the questionnaire booklet in a sealed envelope. Participants will be given the sealed envelope in their cells by the industrial manager. Participants will be given two days to complete the questionnaire, and once finished, they will hand it back to the industrial manager in a sealed envelope.

Participant's Rights: Participants have the right to withdraw from the study at any point throughout. Furthermore, participants have the right to withdraw their data from the study at any point throughout.

Confidentiality: All information provided by participants will be anonymous, meaning no names are required. The information will not be provided to any third party. Furthermore, the information provided will be used solely for research purposes only. Only the researcher will have access to the information. The results of the study will be used as part of an undergraduate thesis and may be publicised in research journal.

Consent Form

By ticking the box you are agreeing that you have read and understood the attached Information Leaflet regarding the nature of the study, and that you have been informed of the objectives and participant requirements.

By ticking the box you are agreeing that you understand that you are free to withdraw from the study, and withdraw your data, at any time throughout without giving a reason.

By ticking the box you agree to take part in the study

☐

Date: _____

Please write your age: _____ years
Gender? (Please tick one box). [] Male [] female
I was raised by [] both parents [] one parent [] without parents [] step parents [] grandparents
As a child/teenager, did your parents/guardians ...? (Please tick all that apply) [] drink excessively [] abuse drugs [] use force or violence against you [] commit crime [] none of the above
As a child/teenager, did any of your siblings ...? (Please tick all that apply) [] drink excessively [] abuse drugs [] use force or violence against you [] commit crime [] none of the above [] I have no siblings

If you are sentenced, how much longer do you expect to be in prison? If you are serving a life or indeterminate sentence please answer according to your minimum tariff length ____
 _____(Please write days, weeks, months or years)

Please indicate the crime(s) that you have been charged with or convicted of (tick all that apply):

☐ Murder or manslaughter ☐ Physical assault ☐ Domestic violence

☐ Sexual offences ☐ Robbery ☐ Arson

☐ Offensive weapons or firearms ☐ Drugs offences ☐ Road traffic offences

☐ Fraud, deception or dishonesty

☐ Other property offences (e.g. burglary criminal damage, vandalism, theft, handling stolen goods)

☐ Other, please state: _____

How many times have you been in prison including this sentence? _____(Please write a number)

Adding together all of your previous sentences and periods of remand, approximately how much time have you spent in prisons. If you are unsure, please provide an estimate.
 _____ (Please write days, weeks, months or years)

Please indicate to what extent you agree or disagree with the following statements:

		Agree	Disagree
1	I don't care if I upset someone to get what I want.		
2	Before criticizing somebody, I try to imagine and understand how it would make them feel.		
3	I know how to make another person feel guilty.		

4	I tend to focus on my own thoughts and ideas rather than on what others might be thinking.		
5	What other people feel doesn't concern me.		
6	I always try to consider the other person's feelings before I do something.		
7	I know how to pay someone compliments to get something out of them.		
8	I don't usually appreciate the other person's viewpoint if I don't agree with it.		
9	Seeing people cry doesn't really upset me.		
10	I am good at predicting how someone will feel.		
11	I know how to simulate emotions like pain and hurt to make others feel sorry for me.		
12	In general, I'm only willing to help other people if doing so will benefit me as well.		
13	I tend to get emotionally involved with a friend's problems.		
14	I'm quick to spot when someone is feeling awkward or uncomfortable.		
15	I sometimes provoke people on purpose to see their reaction.		
16	I believe in the motto: "I'll scratch your back, if you scratch mine".		
17	I get filled with sorrow when people talk about the death of their loved ones.		
18	I find it difficult to understand what other people feel.		
19	I sometimes tell people what they want to hear to get what I want from them.		
20	It's natural for human behaviour to be motivated by self-interest.		

Please rate the degree to which you agree with the following statements.

	Completely disagree	Disagree	Neither agree nor disagree	Agree	Completely agree
1. I have a strong sense of inner security that comes from knowing other criminals					
2. I have a lot in common with other people who have committed a crime					
3. It is important to me to think of myself as a criminal					
4. I feel close to other people who have committed a crime					
5. The fact I am a criminal often enters my mind					
6. I share my personal experiences with my criminal friends					
7. I find it easy to form a bond with other people who have committed a crime					
8. I have accepted the fact that I am a criminal as a part of who I am					
9. Whatever affects my fellow criminals affects me					
10. I meet up with people who have committed a crime when I'm not in prison					
11. My identity as a criminal defines who I am					
12. Generally, I feel good about myself when I think about being a criminal					
13. I find it relatively easy to get close to other criminals					
14. I am who I am, so it doesn't bother me much that I am a criminal					
15. Being with my fellow criminals helps me to feel better about myself					

16. Generally, I'm there for my fellow criminals when they really need me					
17. Most of my opinions and views are similar to my fellow criminals					
18. I feel comfortable when I am with my fellow criminals					
19. Being a criminal is an important part of who I am					
20. Generally, I'm not ashamed that I have criminal friends					
21. I believe that because I am a criminal, I am stronger than an average person					
22. When I am with my fellow criminals I feel I belong somewhere					
23. Being connected with my fellow criminals gives me a source of strength for whatever I do					
24. Generally, I'm glad to be part of a group of people that have engaged in crime					
25. Generally, I'm glad to be a part of a criminal group					

Please read the following questions and indicate how often you think in those ways about yourself:

		Never	Sometimes	Most of the time	Always
1	How often do you feel you are worse than most of the inmates you know?				
2	How often do you feel that you can't do anything well?				

		Never	Sometimes	Most of the time	Always
3	When in a group of inmates, do you have trouble thinking of the right things to say?				
4	How often are you bothered about what other inmates think of you?				
5	How often do you think that you are worthless?				
6	Do you worry about how well you get along with other inmates?				
7	Do you have a low opinion of yourself?				
8	How often do you feel that someday other inmates will look up to you and respect you?				
9	How often do you dislike yourself?				
10	How often do you worry that other inmates might have an unfavourable opinion of you?				
11	How often do you feel that you are easy to like?				

Recall the three friends with whom did you spend the most time before your first incarceration and then answer four questions regarding your friend.

Friend 1

How much of free time you spend in this person's company?

0%-25%

☐

25%-50%

☐

50%-75%

☐

75%-100%

☐

(a) Has this person ever committed a crime?

Yes

☐

No

☐

(b) Does this person have a criminal record?

Yes

☐

No

☐

(c) Has this person ever been to prison?

Yes

☐

No

☐

(d) Has this person tried to involve you in a crime?

Yes

☐

No

☐

Friend 2

How much of free time you spend in this person's company?

0%-25%

25%-50%

50%-75%

75%-100%

☐☐☐☐

(a) Has this person ever committed a crime?

Yes

☐

No

☐

(b) Does this person have a criminal record?

Yes

☐

No

☐

(c) Has this person ever been to prison?

Yes

☐

No

☐

(d) Has this person tried to involve you in a crime?

Yes

☐

No

☐

Friend 3

How much of free time you spend in this person's company?

0%-25%

25%-50%

50%-75%

75%-100%

☐☐☐☐

(a) Has this person ever committed a crime?

Yes

☐

No

☐

(b) Does this person have a criminal record?

Yes

☐

No

☐

(c) Has this person ever been to prison?

Yes

☐

No

☐

(d) Has this person tried to involve you in a crime?

Yes

☐

No

☐

Think back to when you were in school and answer the following questions.

Please mark an X on the line to the left of the answer that is most like how you feel for each question.

1. How many students in your class did you get along with?

_____ I got along with everybody in this class

_____ I got along with most of them

_____ I got along with half of them

_____ I got along with few of them

_____ I got along with nobody in my class

2. How many students in your class did you not get along with? These are people who you don't like and don't want to be around.

- _____ I got along with everybody in this class
 _____ I didn't get along with a few of them
 _____ I didn't get along with half of them
 _____ I didn't get along with most of them
 _____ I didn't get along with anybody in this class

3. How many students in your class respected you and listened to what you had to say?

- _____ Nobody
 _____ Only a few of them
 _____ Half of them
 _____ Most of them
 _____ All of them

4. How many students in this class teased you, put you down, or picked on you?

- _____ Nobody
 _____ Only a few of them
 _____ Half of them
 _____ Most of them
 _____ All of them

Think back to when you were a child/teenager and answer the following questions about your parents or legal guardians

		Not at all	Somewhat	Quite a bit	Very much
1	They were persons I could count on to provide emotional support when I felt troubled.				
2	They supported my goals and interests				
3	They understood my problems and concerns				

		Not at all	Somewhat	Quite a bit	Very much
4	They were available to give me advice or guidance when I wanted it				
5	They gave me as much attention as I wanted				
6	They ignored what I had to say				
7	They were sensitive to my feelings and needs				
8	They made me feel loved and important				
9	They disciplined me when necessary				

Think back to when you were a child/teenager. How much did your parents/guardians know about certain aspects of your life?

		Almost nothing	Very little	Something	Almost everything
1	How much did your parents know about your close friends				
2	How much did your parents know about what you were doing with your friends				
3	How much did your parents know about your close friends' parents				
4	How much did your parents know about who you were with when you were not at home				
5	How much did your parents know about what you were doing at school				
6	How much did your parents know about your teachers				

Please rate the degree to which you agree with the following statements.

		Completely disagree	Mostly disagree	Slightly disagree	Slightly agree	Mostly agree	Completely agree
1	It upsets me to hear that someone was a victim of minor crime						
2	In general, the people who have committed a crime have some very bad characteristics.						
3	I have a positive attitude to the people who have committed a crime.						
4	There is little to admire about the people who have committed a crime.						
5	I think this country would be better off without so many people who have committed a crime						
6	People who have committed a crime should get much more recognition if they have done some good for this country subsequently.						
7	I cannot understand people having a negative attitude to people who have committed a crime.						
8	People in general are no better in any way than my friends who have committed a crime						