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Original Citation

Shagufta, Sonia, Boduszek, Daniel, Dhingra, Katie and Palmer, Derrol (2015) Latent Classes of Delinquent Behaviour Associated With Criminal Social Identity among Juvenile Offenders in Pakistan. Journal of Forensic Practice, 17 (2). pp. 117-126. ISSN 2050-8794

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Latent Classes of Delinquent Behaviour Associated With Criminal Social Identity among Juvenile Offenders in Pakistan

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Abstract

Purpose: The current study aimed to examine the number and nature of latent classes of delinquency that exist among male juvenile offenders incarcerated in prisons in Pakistan.

Methodology: The sample consisted of 415 young male offenders incarcerated in prisons in Khyber Pakhtunkhwa (KPK) Pakistan. Latent class analysis was employed to determine the number and nature of delinquency latent classes. Multinomial logistic regression was used to estimate the associations between latent classes and the three factors of Criminal Social Identity (Cognitive centrality, In-group affect, and In-group ties) whilst controlling for criminal friends, period of confinement, addiction, age, and location.

Findings: The best fitting latent class model was a three-class solution. The classes were labelled: 'minor delinquents'(the baseline/normative class; class 3), 'major delinquents'(class 1), and 'moderate delinquents' (class 2). Class membership was predicted by differing external variables. Specifically, class 1 membership was related to having more criminal friends; while class 2 membership was related to lower levels of in-group affect and higher levels of in-group ties.

Practical implications: Findings are discussed in relation to refining current taxonomic arguments regarding the structure of delinquency and implications for prevention of juvenile delinquent behaviour.

Originality: First, most previous studies have focused on school children, whereas, this paper focuses on incarcerated juvenile offenders. Second, this research includes delinquents from Pakistan, whereas, most previous research has examined delinquent behaviour in western cultures.

Keywords: Delinquency, Criminal Social Identity, Juvenile Offenders; Prison; Pakistan, Latent class analysis.

Introduction

With strong associations with later violent crime, alcoholism, substance misuse, mental health difficulties, psychosocial impairment, and unemployment (e.g., Farrington, 1994), delinquent behaviour among youth is highly problematic both individually and socially. Although figures are unavailable for youth in Pakistan, nearly 1.2 million Americans under the age of 18 were arrested for crimes ranging from curfew and loitering violations, to rape and murder in 2008 (U.S. Department of Justice, Federal Bureau of Investigation, 2009). Given the high prevalence and detrimental consequences of delinquent acts, further research into the nature of these behaviours, as well as and the development of an accurate classification system is required.

Previous research has largely taken a categorical approach to classifying delinquent acts (Simourd & Andrews, 1994), and in doing so has assumed equal valence (i.e., taken a "one size fits all approach"; Odgers, Moretti, & Burnette et al., 2007). Consequently, little is known about the different profiles or mixes of behavioural problems that may exist (Fergusson, Horwood, & Lynskey, 1994). In other words, we have limited knowledge about the dependence between minor forms of antisocial behaviour (trespassing, truancy, causing a public disturbance, or vandalism) and other more serious delinquent acts such as theft, and violent crimes. Indeed, only a small number of researchers to date have used latent structure modelling techniques to identify homogeneous subtypes of delinquent youth.

In a sample of adolescent males, Brownfield and Sorsenson (1987) modelled indicators of delinquency involving theft, vandalism, and assault. Three distinct classes ordered by severity emerged which were labelled 'conformists', 'moderate', and 'seriously delinquent'. Similarly, Osgood, McMorris, and Potenza (2002) fit a latent trait model to delinquency data and found evidence for a continuum of severity. Lee, Baillargeon, and Vermunt et al. (2007) examined subgroup heterogeneity with a sample of 12, 292 Canadian

elementary school youth aged 5-11 years. Key measures of delinquency included physical aggression (kicking, biting, fighting, attacking others, and hitting). A three-class solution provided the best fit to the data, with 'low', 'medium', and 'highly' aggressive groups identified (frequency or propensity of committing physical aggression was used to determine class membership). A three class solution was also derived by Odgers et al. (2007) in their analysis of data drawn from a relatively small sample of 133 female juvenile offenders. The classes were labelled 'violent (with physical aggression) and delinquent behaviours (including substance use, theft, and fighting)', 'delinquency only (few violence items were endorsed)', and a 'low offending' groups. The 'violent and delinquent' group was characterized by the greatest accumulation of risk including psychiatric diagnoses, affect dysregulation, and exposure to violence within the home, school, and neighbourhood. Three distinct classes of youth were also identified by Hasking, Scheier, and Abdallah (2011) based on a 51-item assessment of delinquency. Their groups were labelled 'rule breakers', 'minor delinquents' and 'major delinquents'.

Slightly different results were presented by Muthén and Muthén (2000) who reported four distinct classes of youth based on data drawn from the US National Longitudinal Survey of Youth. The classes consisted of youth with limited endorsement of delinquent behaviours (47%; class 4), youth characterized by fighting and person offenses (25%; class 3), substance users (18%; class 2), and property offenders (9%; class 1) who damaged property, stole, and trespassed. Similarly, Fergusson et al. (1994) in a study examining delinquency subtypes in a birth cohort of New Zealand youth (aged 15 years) found that a four-class model best fit their data. The four classes included a group displaying virtually no problematic behaviour (85%), a group showing elevated alcohol abuse, sexual activity, and marijuana use (5%), an anti-social group characterized by conduct problems, police contact, and marijuana use (7%), and a norm-violating group reporting all forms of problem behaviour (3%).

The theory of Criminal Social Identity (CSI; Boduszek & Hyland, 2011) proposes that the development and activation of CSI, a particular component of an individual's overall self-concept that is derived from criminal group membership, increases an individual's likelihood of engagement in criminal behaviour. Concurrent to their theory of criminal social identity, Boduszek, Adamson, Shevlin, and Hyland (2012) developed the Measure of Criminal Social Identity (MCSI) which was constructed to reflect three related aspects of identity: cognitive centrality, in-group affect, and in-group ties. Cognitive centrality refers to the psychological saliency of identification with one's criminal group, in-group affect refers to the emotional connection an individual feels to their criminal group, and in-group ties refers to the psychological perception of resemblance and emotional connection with other members of a criminal group. Results of confirmatory factor analysis of data drawn from 312 male recidivistic Polish prisoners indicated that the three-factor solution was statistically superior to the alternative and theoretically derived one- and two-factor solutions tested.

The relationship between criminal social identity and criminal behaviour has only recently been investigated (Boduszek, O'Shea, Dhingra, & Hyland, 2014). Boduszek, Hyland, Bourke, Shevlin, and Adamson (2013), for instance, found that increased levels of cognitive centrality positively predicted having committed a violent offence, while increased levels of in-group affect were associated with having committed a non-violent offence. Consequently, these results suggest that the distinct components of CSI may act as differential risk factors for various types of criminal acts.

The current research

This research had two main aims. The first aim is to use a latent variable approach to the classification of delinquent acts to allow for the identification of subgroups with distinct behavioural profiles among male juvenile offenders in Pakistan. This approach represents an important departure from most prior research in that it makes the assumption that important

differences exist within this population. Our sample also differs from those of previous studies in several important respects. First, most previous studies have focused on school children, whereas, we focus on incarcerated juvenile offenders. Second, we include youth from Pakistan, whereas, most previous research has examined delinquent behaviour in western cultures (e.g., Hasking et al., 2011; Lee et al., 2007). As most previous research has identified that delinquency is best viewed as discrete events with different constellations or patterns of commission rather than as a dimensional construct, we expected this to be found with our data. Given the nature of our sample (incarcerated juvenile offenders rather that community adolescents), we also expect that our normative/baseline class will still report considerable engagement in delinquent acts. The second aim is to build on prior research by Boduszek et al. (2013, 2014) looking at the relationship between CSI and criminality by examining the association between latent classes of delinquent behaviour and criminal social identity factors (cognitive centrality, in-group affect, and in-group ties), while controlling for criminal friends, period of confinement, addiction, age and location.

Method

Participants and procedure

Participants were 415 male prisoners incarcerated in prisons in Khyber Pakhtunkhwa (KPK) Pakistan. The respondents ranged in age from 11-18 years ($M = 16.53$, $SD = 1.93$). Most offenders came from rural areas (69.6%), were bought up in a single-parent home (53.3%), and reported having been imprisoned for non-violent crimes (74.7%). The duration of imprisonment reported by juvenile offenders ranged from 1 to 36 months ($M = 6.29$; $SD = 5.93$).

The measures were administered in groups of up to 40 individuals by the lead researcher, an assistant researcher or prison superintendent. The assistant researcher and prison superintendent were instructed by the lead researcher about the procedures involved in conducting this study. Each participant was provided with a brief description of the study including the general area of interest, how to complete the questionnaire, and the general expected completion time. Participants completed an anonymous, self-administered, paper and pencil questionnaire, which was compiled into a booklet along with an instruction sheet and a consent form attached to the front of the booklet. Participants were assured about the confidentiality of their participation and informed that they could withdraw from the study at any time. The participation was voluntary without any form of reward. On completion, participants were debriefed on the purpose of the study. Ethical approval was granted by the Pakistan Prison Service's ethical review board.

Measures

The Measure of Criminal Social identity (MCSI; Boduszek et al., 2012) consists of eight items and is based on Cameron's (2004) Three-dimensional Strength of Group Identification Scale. Each item is scored on a 5-point Likert scale (1= *strongly disagree* to 5 = *strongly agree*). Scores range from 8 to 40, with higher scores reflecting higher levels of criminal

social identity. The measure included three subscales: in-group ties (three items) subscale measures the level of personal bonding with other criminals; cognitive centrality (three items) subscale measures the psychological salience of a criminal's group identity; and in-group affect (two items) subscale measures a criminal's felt attitude toward other in-group criminals.

The MCSI was translated from English into Urdu by the principal researcher and then sent to a group of academics to translate the Urdu version back into English. The translation of the MCSI, along with the original English version, was then submitted to three experts who indicated appropriate changes.

The Measure of Criminal Attitudes and Associates (MCAA; Mills & Kroner, 1999) is a two-part self-report measure of criminal attitudes and associates (only part A was used in the current research). Part A is a measure intended to quantify criminal associations before incarceration. Respondents are asked to recall the three adults with they spend most of their free time with (0%-25%, 25%-50%, 50%-75%, and 75%-100%). The respondent then answers four questions in relation to the degree of the criminal involvement of their associates: (a) "Has this person ever committed a crime?" (b) "Does this person have a criminal record?" (c) "Has this person ever been to jail?" and (d) "Has this person tried to involve you in a crime?" Part A was used to calculate two measures of criminal associates. The first, "Number of Criminal Friends," was calculated by adding up the number of friends to which the participant had answers "yes" to any of the questions of criminal involvement. This meant the participant could indicate zero to three criminal associates. The second measure is the extent of exposure to criminal friends. This measure is calculated by assigning a number of one to four to the percentage of time options available for each identified associate. That number is then multiplied by the number of 'yes' responses to the four questions of criminal involvement. Each of the resulting products is added together to

produce the Criminal Friend Index. Overall scores for the Criminal Friend Index (CFI) therefore range from 0 to 48, with higher scores reflecting an increased involvement with criminal associates.

Addiction was assessed using the single item, "are you addicted to any drug?

Delinquent behaviour was assessed using 10 items, written for the purposes of the present research, which asked if participants had ever: 1) caused a disturbance while in large group, 2) played truant from school, 3) told lies or cheated, 4) broken rules, 5) smashed, slashed, or damaged property belonging to someone else, 6) physical fought with someone, 7) physically attacked someone for no reason, 8) used threats of violence to get someone to do something for you, 9) stolen something from a store/shop or school, 10) set fire to a building, a car, or something else not belonging to you on purpose.

Demographic information was collected including age (continuous), period of confinement (in months), and location (urban or rural).

Analysis

Latent class analysis (LCA) is a statistical method used to identify homogeneous groups (or classes) from categorical multivariate data. In current research, LCA was employed to determine the number and the nature of delinquent behaviour groups based on the endorsement of each of the 10 items reflecting delinquent behaviours. The 10 delinquent behaviour items were dummy coded. Six latent class models were tested (a one- through to a six-class latent class model). Selection of the optimal number of latent classes was based on several statistical fit indices. The statistical fit indices were: likelihood ratio chi-square (LR χ^2), Akaike information criterion (AIC), Bayesian information criterion (BIC), sample size adjusted BIC (SSABIC), the Lo-Mendell- Rubin's adjusted likelihood ration test (LRT), and entropy measures. A non-significant LR χ^2 indicates acceptable model fit. The information statistics AIC, BIC, and SSABIC are goodness of fit measures used to compare competing

models; lower observed values indicate better fit. The LRT statistic was used to compare models with differing numbers of latent classes; a non-significant value ($p > 0.05$) suggests that the model with one fewer class should be accepted. Entropy is a standardised measure of how accurately participants are classified. Values range from 0 to 1 with higher values indicating better classification.

Multinomial logistic regression was used to assess the association between class membership (posterior probabilities from the model were used to assign individuals to a class) and criminal social identity factors (cognitive centrality, in-group affect, and in-group ties), while controlling for age, period of confinement, criminal friends, location (urban or rural) and addiction status. The subsequent odd ratios (OR) indicate the expected increase/decrease in the odds of scoring positively on a given variable compared to the reference, or control group (in this case low psychopathy risk group). The analysis was conducted using Mplus 6.12 (Muthén & Muthén, 1998– 2010).

Results

Delinquent item endorsement

Table 1 presents the rates of endorsement for each of the 10 items for the entire sample after list-wise deletion of missing data. Little's MCAR test indicated that data was missing completely at random ($\chi2=34.91$, p =.47). Consequently, missing values were not problematic and analysis was conducted without imputation being made (only 6 cases were removed from final analysis). The most commonly endorsed items were fighting (80.5%), property damage (56.9%), and playing truant from school (48.7%).

Table 1. *Prevalence rates of delinquent behaviours*

Item	Criteria endorsed count (%)
V1 Group disturbance	73 (17.6)
V2 Truant from school	202 (48.7)
V3 Lying or cheating	137 (33.0)
V4 Breaking rules	193 (46.5)
V5 Property damage	236 (56.9)
V6 Fighting	334 (80.5)
V7 Physically attack people	77 (18.6)
V8 Threatening to hurt people	189 (45.5)
V9 Stealing	122 (29.4)
V10 Setting fires	103 (24.8)

Latent class solution

The fit indices for alternative latent class analyses are presented in Table 2. The 3-class solution is considered to be the best model; the Bayesian information statistic (BIC), sample size adjusted Bayesian information statistic (SSABIC), and Akaike information criterion (AIC) are markedly lower than for the 1 and 2 class solutions. Most importantly, the Lo-Mendell-Rubin's LRT indicates that the 4 class model is not significantly better than the 3 class model. Consequently, the 3 class solution is preferred on the basis of parsimony. The entropy value (0.84) indicates acceptable classification of participants.
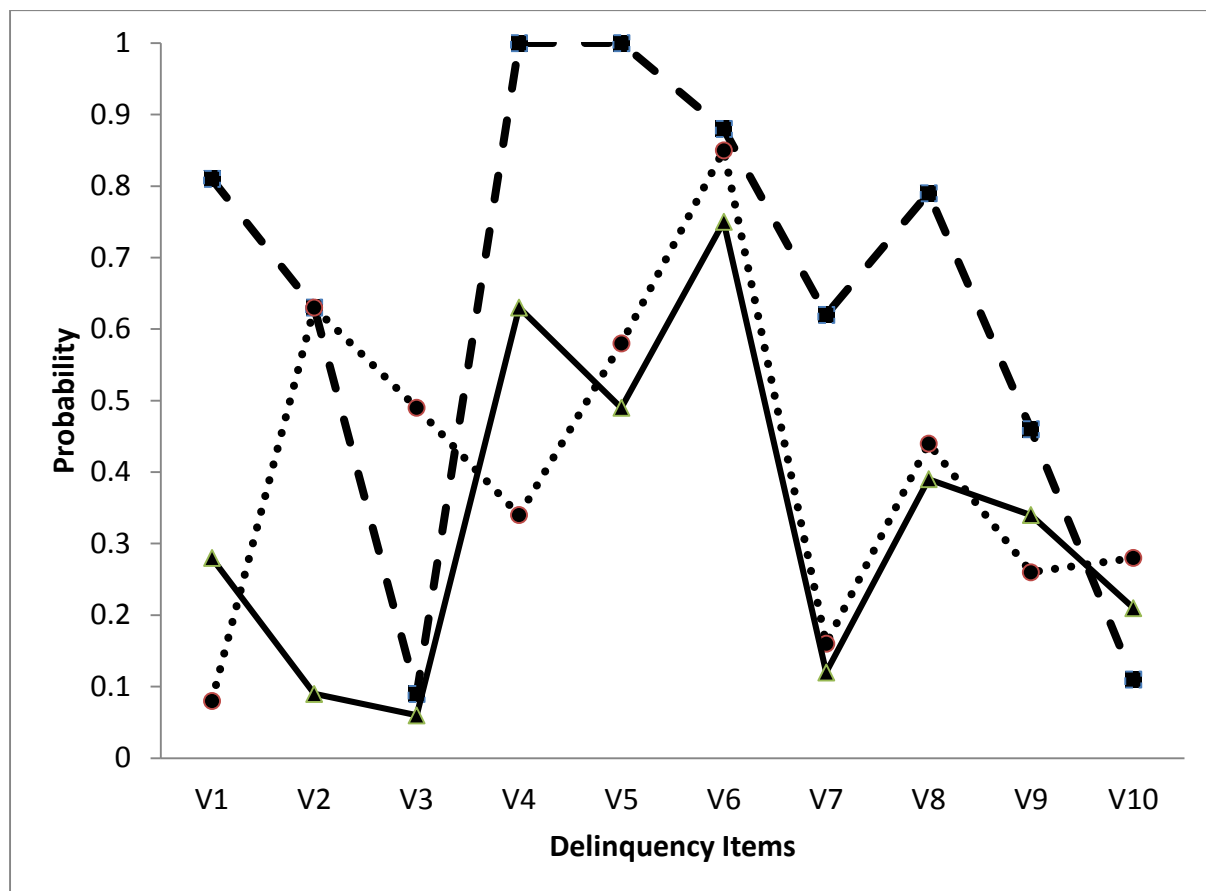
Table 2. *Fit indices for the latent class analysis of victimization experiences*

Model	AIC	BIC	SSABIC	LRT	Entropy
2 classes	4968.31	5052.91	4986.27	48.88***	0.67
3 classes	4947.60	**5076.50**	**4974.96**	**42.08***	**0.84**
4 classes	4946.65	5119.86	4983.42	527.49	0.84
5 classes	4946.49	5164.02	4992.67	21.83	0.63
6 classes	4945.90	5207.74	5001.48	22.26	0.69

Note: AIC = Akaike information criterion, BIC = Bayesian information criterion, SSABIC = sample size adjusted BIC, LRT = Lo-Mendell-Rubin's adjusted likelihood ratio test. * $p < 0.05$; *** $p < 0.001$.

The latent class profile plot indicating the probability of endorsement, across each of the three classes, for each of the delinquent behaviours is presented in Figure 1. The probabilities indicate the strength of a particular item in distinguishing whether a youth would be a member of each class. The majority of respondents were classified into class 2 (64.9 %) which was characterized by individuals with a high probability of endorsing truancy, property damage, and fighting (all response probabilities exceeded 0.60); and a low probability of endorsing disturbing others when in a group, physically attacking others, and stealing (response probabilities did not exceed 0.40 for any single item). Based on this pattern of endorsement, the class is labelled 'moderate delinquents'. Class 3 (29.8% of participants) was characterized by individuals with a low probability of endorsing all items (response probabilities did not exceed 0.40 for any single item) except for breaking rules, property damage, and fighting (all response probabilities exceeded 0.50). By the nature of their modest and restricted involvement in delinquent behaviour, we labelled these youth 'minor delinquents' (the baseline/normative class). The pattern of item endorsement for classes 2 and 3 is similar for the majority of items, differing mainly in magnitude. However, items two (truancy) and three (lying or cheating) provide clear markers that differential these classes, with endorsement of both items much greater for class two than three. The smallest proportion of youth (5.4%) was classified as members of the third class. These youth endorsed a wide range of items that exceeded the delinquent involvement of the other two classes. These youth had the highest likelihood of endorsement of all delinquent behaviours except for setting fires. Given this pattern of delinquent involvement, these youth were labelled 'major delinquents.'

Figure 1. *Profile plot of three latent classes*

Note: Class 1 = long dash line with squares (5.4% of participants); Class 2 = round dot line with circles (64.9% of participants); class 3 solid line with triangles (29.8% of participants).

Associations between latent classes and criminal social identity fctors while controlling for covariates

Multinomial logistic regression was used to analyse the association between latent classes of delinquent behaviour and criminal social identity factors (cognitive centrality, in-group affect, and in-group ties), while controlling for criminal friends, period of confinement, addiction, age and location. The reference category for the outcome variable was the baseline/normative class (class 3); the other two classes were compared to this reference group.

The first column in Table 3 has the outcome of the 'high delinquency class' (class 1) compared to the 'minor delinquency class (reference category). The results suggest that criminal friends (OR = 1.15) significantly increase the probability of membership in class 1, while controlling for all other covariates. The second column in Table 3 has the outcome of the 'moderate delinquency' class (class 2) compared to reference category (class 3). Statistical analysis shows that those participants who reported lower levels in in-group affect (OR = 0.57) and higher levels of in-group ties (OR = 1.44) were significantly more likely to belong to this class, while controlling for all other covariates.

Table 3. *Associations between latent classes of delinquent behaviour, criminal social identity factors, criminal friends, period of confinement, addiction, age, and location*

Variable	Class 1	Class 2
	OR (95% CI)	OR (95% CI)
Centrality	1.29 (0.49/3.37)	0.75 (0.55/1.03)
In-group Affect	2.15 (0.68/6.83)	0.57 (0.40/0.83)**
In-group Ties	0.70 (0.47/1.03)	1.44 (1.14/1.81)**
Criminal Friends	1.15 (1.04/1.27)**	1.06 (0.99/1.14)
Confinement (months)	0.92 (0.67/1.27)	0.99 (0.92/1.07)
Addiction	0.21 (0.03/1.23)	0.28 (0.07/1.22)
Age	1.63 (0.90/2.97)	1.07 (0.84/1.37)
Location	0.50 (0.05/5.43)	0.81 (0.29/2.28)

Note. Reference group (Class 3): low delinquency group, OR = Odds Ratio, 95% CI = Confidence Interval. ** $p < 0.01$

Discussion

The aim of the current study was to identity the appropriate number of latent classes of delinquent behaviour within a sample of juvenile offenders incarcerated in Pakistan, and to examine the associations between class membership and criminal social identity factors while controlling for age, criminal friends, period of confinement, addiction, and location.

Three subgroups of incarcerated youth with distinct behavioural profiles were identified using LCA. The three delinquency classes obtained can be differentiated by both the variety and severity of delinquent acts endorsed. By far, the most prevalent form of delinquent behaviour was getting into fights. This finding is in contrast to those of Hasking et al. (2011) who found that the most prevalent forms of delinquent behaviour were the least offensive from a criminal behaviour standpoint (e.g., drinking underage, viewing pornography, littering, making obscene phone calls, and lying).

Although the classes were labelled as 'high,' 'moderate,' and 'low' delinquency, the classes that emerged were not ordered - that is, the probabilities of all items did not decrease from Class 1 to Class 3. For example, group disturbance, rule-breaking, and stealing have lower probabilities for Class 2 than for Class 3. This suggests that there is not a single dimension of delinquent behaviour with the three classes representing decreasing levels of severity on this dimension; instead, the classes represent different kinds of antisocial behaviour, corresponding to different class profiles of high and low item probabilities. This finding is in contrast to research by Brownfield and Sorsenson (1987) and Osgood et al. (2002) which found evidence for a continuum of severity. Whether this reflects a difference in sample type (incarcerated offenders vs. school children) or a cultural difference is unclear and remains an important direction for further research.

One class of delinquents consisted of rule breakers and fighters characterized by a generally low level of delinquent involvement (the baseline/normative class; class 3). Brownfield and Sorenson (1987) referred to these youth in their sample as 'conformists' given their low levels of delinquency. However, given the nature of the sample used in the present research (incarcerated offenders), this perhaps may not be the most appropriate characterisation of this class. Thus, in the present study, we refer to members of this class as the 'minor delinquency' class. In our sample, no items other than rule breaking and fighting recorded a response probability above the threshold of 0.50 in this low level group. From a primary prevention standpoint, these youth would perhaps benefit from learning alternative conflict resolution strategies to fighting.

Class 2 (the largest class) is more characteristic of what previous research has identified as moderate delinquency with youth endorsing a wider range of activities, including truancy, property damage, and fighting, as well as group members having the highest endorsement of setting fires. However, the pattern of item endorsement for delinquency items did not differ that substantially from that of class 3. Indeed, differentiation between these classes appears to mainly be the higher endorsement of truancy and lying or cheating in this class compared to the baseline/normative class.

The final class (Class 1) indicated a profile consistent with what would be considered serious delinquency. This very small (5.4%) group of youth was clearly different from the majority, and they engaged in a variegated form of delinquency. These youth disobeyed their parents, caused a disturbance while in large group; played truant from school; broke rules; smashed, slashed, or damaged property belonging to someone else; physical fought with others; physically attacked others for no reason, and used threats of violence to get someone to do something for them.

In light of the above, our findings suggest that there is not a 'sub-type' of boys that specialize in serious forms of violence only. Thus, while it is virtually normative for boys within high-risk contexts to report engagement in fights, indeed 80.5% of this sample had been in a fight, exclusive involvement in more serious forms of violence (e.g., physically attacked someone for no reason, used threats of violence to get someone to do something for you) was not supported.

Results of the regression analysis showed that the three classes can be differentiated based on criminal social identity factor scores and number of criminal friends. Specifically, the results indicate that incarcerated juvenile offenders reporting having more criminal friends were more likely to belong to the 'major delinquency' class; while those reporting higher in-group ties and lower in-group affect were more likely to belong to the 'moderate delinquency' class compared to the baseline class. This finding is consistent with previous research indicating that number of criminal friends and CSI are related to criminal cognitions and behaviour (e.g., Boduszek, Adamson, & Shevlin et al., 2013; Boduszek & Hyland, 2011; Boduszek, Hyland, & Bourke, 2012) and suggests that those working with criminal populations should be cognisant of the role of both criminal friends and CSI in increasing or decreasing an individual's likelihood of more delinquent acts. The results also suggest that for 'moderate delinquents' in prison there may be a greater perceived need to display a strong criminal identity in order to adapt to one's surroundings and to form social relationships with other criminals, whereas, for 'major delinquents' this may not be so important as social relationship with other criminals has already been formed, as indicated by reporting a greater number of criminal friends. This suggestion is, however, in need of further empirical investigation.

Conclusions drawn from the current study must necessarily be considered in light of a number of limitations. First, our sample included males only and as such we could not test for

sex differences with respect to subgroups or key risk factors. Although previous work with female juvenile offenders (Odgers et al., 2007) supports the existence of similar offending subtypes we were not able to directly test for differences across sex. Consequently, replication of our findings in a sample of both male and female juvenile offenders is required. Second, self-report assessments of delinquency used in some prior research has contained considerably more items than were used in the present research (e.g., Hindelang, Hirschi, & Weis, 1981; Quay & Peterson, 1983). It is, therefore, possible that the restricted range of items used to create the class solution was not sufficient to typologically cast these youth. Consequently, it is possible that the inclusion of a broader measure would have led to a different class solution being found. However, the three-class solution is consistent with previous research (Brownfield & Sorenson, 1987; Hasking et al., 2011; Lee et al., 2007; Odgers et al., 2007; Osgood et al., 2002) and the nature of the sample meant further item inclusion was not possible. Third, the use of self-report data within a sample of young offenders may have introduced several well-known limitations, such as response bias. However, recent reviews suggest that adolescents tend to be reasonably truthful in reporting rates of problematic behaviours (e.g., Oetting & Beauvais, 1990). Despite this, the extent to which the structure of delinquent behaviour found within self-report would generalise to other assessment methods clearly remains to be seen. Finally, the results obtained may not generalise to other geographical area and therefore require replication is other geographic regions.

Finally, a restricted set of external variables, albeit reliable and valid ones were used to characterise the classes. There are numerous predictors that have been identified as risk factors for delinquency that we did not include. For instance, psychopathic traits have been linked with onset to and development of delinquent behaviours (e.g. Dhingra & Boduszek, 2013). Although the main interest in the present research was the relationship between class

membership and the three CSI components, the inclusion of a broader set of factors may have been advantageous.

Despite these limitations, implications for clinical practice and prevention can be noted, as well as implications for the assessment of problem behaviours in adolescents. Our findings demonstrate the considerable diversity that exists among male juveniles incarcerated in Pakistan. Admittedly, the findings of the present research are not entirely novel and require further replication; however, they underscore the need to recognise that not all youth in Pakistan who become involved with the justice system are the same—both in terms of their delinquent behaviour profiles and associated risk profiles. Given the wide ranging behaviours reported across the classes, programmes that combine normative education and skills building (e.g., Prothrow-Stith, 1987) might be most effective. The results also indicate a need to move beyond classifying youth based on their engagement in one type of behaviour (i.e., adopting a "one size fits all approach"). This is because a failure to do so may prevent us from furthering our ability to understand the mechanisms underlying their behaviour. For instance, although some variables may increase an adolescent's general risk for involvement in delinquent behaviour, others may exert greater influence on specific delinquent acts (e.g., some risk factors may be particularly relevant to truancy and lying or cheating).

Building on the findings of previous studies using normative samples, the present study confirmed that three distinct classes of delinquency exist. Class membership was also found to be differently related to two of the three factors of criminal social identity (in-group affect and in-group ties), as well as criminal friends. Thus, the present research has furthered our understanding of how delinquency is best conceptualized and provides further direction for clinical practice and prevention efforts.

Implications for practice

- Considerable diversity exists among male juveniles offenders incarcerated in Pakistan.

- Justice system-involved youth are not all the same—they differ in their delinquent behaviour profiles and associated risk profiles.

- Programmes that combine normative education and skills building (e.g., Prothrow-Stith, 1987) might be most effective.

- Researchers need move beyond adopting a classifying youth based on their engagement in one type of behaviour.

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