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CRIMINAL THINKING STYLES AND CRIMINAL SOCIAL IDENTITY AMONG JUVENILE DELINQUENTS: MODERATING ROLE OF PARENTING STYLES

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ABSTRACT

Parenting is considered imperative in the development of juvenile's cognitions, and beliefs. The parent-child relationship might significantly influence juvenile's thought patterns and social communications. Different parenting styles perhaps indicate criminal involvement of juveniles, resultantly turns them into delinquent. The present study was done to discover whether parental authority styles moderate the path that links criminal thinking styles to criminal social identity amongst juvenile delinquents. Participants of the study were 211 juvenile delinquents who responded on Juvenile Criminal Thinking Styles' Inventory (Sana & Rafiq, 2019), Measure of Criminal Social Identity (Boduszek, et al., 2012), Parental Authority Questionnaire (Babree, 1997) and approached through purposive sampling technique. Association among variables was measured by using the Pearson product-moment correlation coefficient whereas moderating effects of parental authority styles in linking criminal thinking styles to criminal social identity were assessed through hierarchical regression. The results show a positive relationship of criminal thinking styles with criminal social identity, authoritarian and permissive parenting styles while a negative relationship with authoritative parenting style. Moreover, it is evident that strict (authoritarian) and liberal (permissive) parenting moderates the interrelationship of criminal thinking styles and criminal social identity of juvenile delinquents as compared to reliable and trustworthy (authoritative) parenting. Results suggest working to develop intervention as well as prevention programs for juveniles that need appropriate attention and affection from parents, which resultantly persuade distorted thought patterns and criminal peer associations.

Keywords. Parenting styles, criminal thinking, social identity, moderation, juvenile delinquents

INTRODUCTION

Criminal thinking is defined as thought content and cognitive processes conducive to the commencement and continuation of persistent anti-social and criminal conduct (Walters, 2006a). It is defined as a distorted thought pattern that includes actions and principles to support a criminal lifestyle by giving reasons and justifications for offensive behavior (Taxman, Rhodes, & Dumenci, 2011). For that reason, criminogenic needs are characterized as criminal thinking distortions (Walters, 2003), because delinquents who likely to exhibit more criminal thinking distortions tend to take incorrect decisions; further these distortions affect their future delinquent behavior (Walters, 2006b). Theoretically, criminal thinking is the product of relations with delinquents. Consequently, relations with criminal peers serve as the root cause of criminal behavior (Boduszek & Hyland, 2012).

As reviewed, the increasing amount of juvenile delinquency is a crucial and serious topic across the world (Rohany, et al., 2011). Whenever the discussion is based on relating the children's psychological and social issues with juvenile delinquency would normally revolve around the causal factors such as families, friends, schools, media, and community (Rohany et al., 2011), because many juveniles with no prior history of criminality initiate criminal acts due to affiliation with antisocial peers during adolescence stage (Shagufta, et al., 2015). Therefore, the current research assumes that criminal behaviors are determined by criminal thinking styles because these thinking styles are interrelated to criminal peer interaction.

Primarily, both parenting and peers play a crucial role in the social development of adolescents. Literature indicates that the combination of parenting and peers plays a significant role in the development of juvenile

delinquency and adult criminality, even though their respective involvements in deviant activities are fully dependent on the age and developmental needs of a child (Walters, 2016). While parental factors outweigh the peer factors during the socialization process of children, because peers turn out to be more significant factors for a child's development into an adolescent, because children like to spend more time with their friends as compared to their parents (Rubin, Bukowski, & Parker, 2006). Universally, it is found that lack of warmth from parents is associated with negative psychological effects such as aggression, depression, emotional insensitivity, and school misdemeanors (Chen, Rubin, & Li, 1997). Majorly, both cultural similitude and discrepancies in the styles of relations among families and problematic behaviors in children were found from the United States, Pakistan, China, India, Korea, Canada, and the Czech Republic that turned them towards delinquency (Kausar & Pinquart, 2016).

Consequently, the combination of environmental factors (such as poor familial supervision, early social inadequacy, and poor school performance) and individual components (like low intelligence, impulsivity, anxiety, and high level of anger) both predict serious and violent recidivism (Shagufta, 2015). Moreover, there are more relatable risk components, mainly weak bond with family, poor education, prior father delinquency, antisocial peer interactions, and gang association; they all play a crucial role in predicting broad future involvement in delinquent activities (Shagufta, 2015). Accordingly, one can say that juveniles may also have low self-esteem, which causes possible risk factors for recidivism because they easily motivate by delinquent peers.

Currently, in Pakistan, some researchers intend to explore only parents' approach and attitude towards their children and parental conflicts, the influence of media-mediated models (Shagufta, 2015), familial supervision, psychosomatic traits (Ashiq, 2015), personality characteristics (Rafail & Haque, 1999), family dimensions, self-esteem (Panzai, et al., 2019), lack of knowledge and inexperience, poor livelihood, and peer relationships (Shagufta, 2015) to comprehend offending activities.

The current study is an attempt to find whether parenting styles buffer the path linking criminal thinking styles to criminal social identity among juvenile delinquents. Purposely, the current study was conducted to identify how criminal thinking styles influence the socialization of juvenile delinquents and

lead them towards criminal peers. Therefore, the abovementioned literature suggests a need to conduct a study to pragmatically examine the following

objectives:

1. To determine the relationship between criminal thinking styles, criminal social identity, and parenting styles.
2. To examine the moderating role of parenting styles in linking criminal thinking styles to criminal social identity.
3. To identify the difference based on demographic variables in criminal social identity, criminal social identity, and parenting styles.

Hypotheses

1. Criminal thinking styles positively predict criminal social identity in juvenile delinquents.
2. Relationship between juvenile delinquents' criminal thinking styles and criminal social identity is moderated by parenting styles.

Method Participants

The participants were 211 juvenile delinquents, who were imprisoned for 1 to 60 months in prison in Pakistan. The participants ranged in age from 10 to 17 years. The demographic information was collected including age (continuous), background information such as rural or urban, period of imprisonment in months along with relapse into criminal behavior, and types of delinquency such as violent or non-violent. Demographic details are shown in Table1.

Table 1
Demographic Characteristics of Participants (N=211)

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
Age		15.80	1.21
Period of confinement		9.86	11.92
No. of committed crimes		1.38	1.26
Education			
Uneducated	78 (37%)		
1-5 class	54 (25%)		
6-11 class	79 (37%)		
Committed Crimes			
Murder	87 (41%)		
Theft	38 (18%)		
Sexual Assault/Rape	31 (14.7%)		
Kidnapping	6 (2.8%)		
Robbery	15 (7.1%)		
Fighting	10 (4.7%)		
Drugs Smuggling	24 (11.4%)		
Crime Types			
Violent	153 (72.5%)		
Nonviolent	58 (27.5%)		
Location			
Rural	101 (47.9%)		
Urban	110 (52.1%)		

As shown in Table 1, the means, standard deviations, and the frequency percentages of demographic characteristics of juvenile delinquents. The average period of confinement was 5 months. The minimum number of committed crimes was 1 and the maximum number of committed crimes was 11. The majority of juvenile delinquents were educated, belonged to urban areas, and committed violent crimes, mainly murder.

Measures

Following measures were used in the current study. The demographic questionnaire such as age (continuous), background information (rural or urban), period of imprisonment (in months), and types of delinquency (violent or non-violent) was also collected.

Juvenile criminal thinking styles' inventory (JCTSI; Sana & Rafiq, 2019).

Juvenile Criminal Thinking Styles Inventory was used to determine the relationship between juvenile delinquents' criminal thinking and criminal social identity. JCTSI comprised 19 thoughts as expressed by juvenile delinquents. The items of JCTSI were rated on 5-point Likert Scale ranging from strongly disagree (1) to strongly agree (5). It has three scales namely Domination, Social Alienation, Vindication. The reliability of an inventory was satisfactory ($\alpha = .80$).

Measure of criminal social identity (MCSI; Boduszek et al., 2012). A measure of Criminal Social Identity

that was originally developed by Boduszek et al. (2012) and translated in Urdu by Shagufta (2015) for juvenile delinquents' criminal social identity was used to determine the relationship of juvenile delinquents' criminal thinking and criminal social identity. MCSI intended to measure juvenile delinquents' criminal social identity and it consisted of 8 items with a 5-point Likert scale (5=strongly agree to 1=strongly disagree). It had three subscales namely Cognitive Centrality, In-group Affect, and In-group Ties. The reliability of MCSI (Urdu version) subscales was .81 for in-group ties (T), .91 for in-group effect (A), and .68 for centrality (C).

Parental authority questionnaire (PAQ; Buri, 1991; Babree, 1997).

Parental Authority Questionnaire (Buri, 1991; Babree, 1997) was used to determine the moderating role of parenting styles between the relationship of criminal thinking styles and criminal social identity of juvenile delinquents. This scale was developed by Buri (1991), then adapted and translated by Babree

(1997) to measure Baumrind's parental authority prototypes in children. It consisted of 30 items with a 5-point Likert Scale ranging from strongly disagree (1) to strongly agree (5) for measuring parental authority styles. Literature reported that PAQ had satisfactory reliability and validity (Buri, 1991). In the present study, a combined questionnaire (father and mother parental styles) was used.

Procedure

To collect data, initially, the permission from Institute of Clinical Psychology, University of Management and Technology, Lahore, and from the authors of measures about to employ their scales in the current research was taken. After that, the permission for data collection from juvenile delinquents was taken from the Inspector General of Prisons (IG), Punjab, Pakistan. The participants were briefed and then debriefed about the research protocol and its rationale and assured about the confidentiality of each participant's information. The responses of participants were anonymous. The research protocols were administered on juvenile delinquents who were selected through purposive sampling from Punjab Prisons, Pakistan with the assistance of prison assistant superintendents. After the questionnaires were filled, they were scored for the statistical analyses.

Results

The current study proposed to explore the moderating effects of parenting styles in linking criminal thinking styles to criminal social identity among juvenile delinquents and determining the variations on chosen demographic variables. The results were computed through IBM SPSS-21.

Table 2

Summary of Intercorrelations for Scores of Juveniles Delinquents on Juvenile Criminal Thinking Styles' Inventory, Measure of Criminal Social Identity, and Subscales of Parenting Styles (N=211)

Variable	1	2	3	4	5
1. JCTSI	—	.51**	.76**	.69**	-.43**
2. MCSI		—	.52**	.51**	-.40**
3. Authoritarian			—	.59**	-.39**
4. Permissive				—	-.40**
5. Authoritative					—

Note. JCTSI = Juvenile Criminal Thinking Styles' Inventory; MCSI = Measure of Criminal Social Identity.

**p < .01.

Results suggest that juvenile criminal thinking styles

are positively correlated to measure of criminal social identity, authoritarian, and permissive parenting styles, whereas authoritative parenting style is negatively correlated with criminal thinking styles, criminal social identity, authoritarian, and permissive parenting styles.

Table 3

Hierarchical Regression Analysis Showing Moderating Effect of Authoritarian Parenting Style in Linking Criminal Thinking Styles to Criminal Social Identity Among Juveniles Delinquents (N=211)

Variable	Model 1			Model 2			Model 3		
	B	SE	β	B	SE	β	B	SE	β
JCTSI	.24	.03	.51***	.13	.04	.27**	.76	.16	1.59***
APS				.19	.07	.31**	1.52	.31	1.74***
JCTSI x APS							-.02	.00	-2.59***
R ²	.26			.30			.45		
F	74.11***			45.28***			37.99***		
ΔR^2	.26			.30			.35		

Note. JCTSI = Juvenile Criminal Thinking Styles' Inventory; APS = Authoritarian Parenting Style. **p < .01. ***p < .001.

As shown in Table 3, significant moderation of authoritarian parenting style between criminal thinking styles and criminal social identity F (3, 207) = 37.99, p < .001 and ($\beta = -2.59$, p < .001), which reveal that model is significant and high ratio of criminal thinking styles and highly strict and controlling parenting leads to criminal social identity in juvenile delinquents.

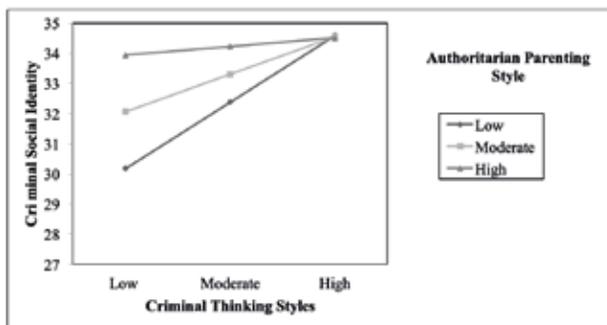


Figure 1. Interaction of authoritarian parenting style and criminal thinking styles on criminal social identity. The lines on graph show high moderation of JCTSI and authoritarian parenting style with criminal social identity. The graph shows an association between authoritarian parenting style and criminal social identity among juvenile delinquents and highly strict parenting increases chances of interaction with criminal peers.

Table 4

Hierarchical Regression Analysis Showing Moderating Effect of Permissive Parenting Style in Linking Criminal Thinking Styles to Criminal Social Identity Among Juveniles Delinquents (N=211)

Variable	Model 1			Model 2			Model 3		
	B	SE	β	B	SE	β	B	SE	β
JCTSI	.24	.03	.51***	.14	.04	.30***	.84	.18	1.76***
PPS				.31	.08	.30**	1.61	.34	1.58***
JCTSI x PPS							-.02	.00	-2.52***
R ²	.26			.31			.36		
F	74.11***			46.65***			38.46***		
ΔR^2	.26			.30			.35		

Note. JCTSI = Juvenile Criminal Thinking Styles' Inventory; PPS = Permissive Parenting Style. **p < .01. ***p < .001.

As shown in Table 4, the results of hierarchical regression analysis of permissive parenting styles between criminal thinking styles and criminal social identity. Table depicting significant moderation of permissive parenting style between criminal thinking styles and criminal social identity F (3, 207) = 38.46, p < .001 and ($\beta = -2.52$, p < .001), which reflect that model is significant and high ratio of criminal thinking styles and extremely lenient and liberal parenting leads to criminal social identity in juvenile delinquents.

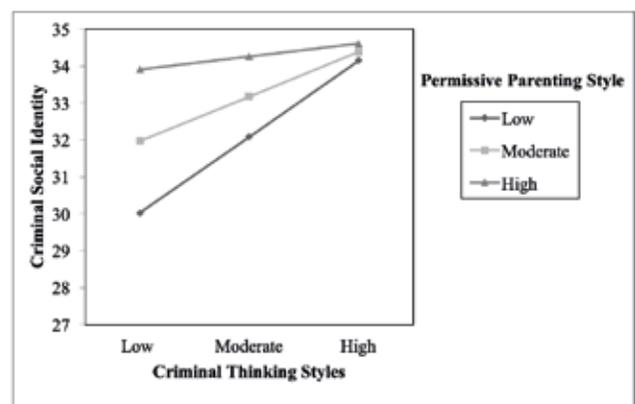


Figure 2. Interaction of permissive parenting style and criminal thinking styles on criminal social identity. The lines on graph show high moderation of JCTSI and permissive parenting style with criminal social identity. The graph shows an association between permissive parenting style and criminal social identity among juvenile delinquents and extremely lenient parenting increases probability of interaction with criminal peers. Table 5

Hierarchical Regression Analysis Showing Moderating Effect of Authoritative Parenting Style in Linking Criminal Thinking Styles to Criminal Social Identity Among Juveniles Delinquents (N=211)

Variable	Model 1			Model 2			Model 3		
	B	SE	β	B	SE	β	B	SE	β
JCTSI	.24	.03	.51***	.20	.03	.41***	-.17	.13	-1.28
APS				.24	.07	-.22**	1.38	.40	-1.27**
JCTSI x APS							.01	.00	1.01**
R ²	.26			.30			.33		
F	74.11***			45.23***			33.98***		
ΔR^2	.26			.30			.32		

Note. JCTSI = Juvenile Criminal Thinking Styles' Inventory; APS = Authoritative Parenting Style.
 p < .01. *p < .001.

As shown in Table 5, the results of hierarchical regression analysis of authoritative parenting styles between criminal thinking styles and criminal social identity. The results somehow reveal that authoritative parenting style is not significantly linking criminal thinking styles to criminal social identity. Furthermore, it is reflective that overall model is significant; however, well reliable and trustworthy parenting has low likelihood of criminal peer interaction in juvenile delinquents.

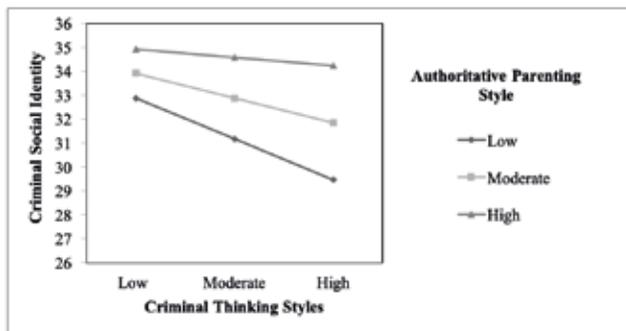


Figure 3. Interaction of authoritative parenting style and criminal thinking styles on criminal social identity.

The lines on graph show low moderation of JCTSI and authoritative parenting style with criminal social identity. The graph shows an inverse association between authoritative parenting style and criminal social identity among juvenile delinquents and well reliable and trustworthy parenting decreases probability of interaction with criminal peers.

Discussion

The present research examined a model of juvenile delinquency in which the predictive relationship between criminal thinking styles and criminal social identity was mediated by parental authority styles. To see the relationship between parental authority styles (PAS), criminal thinking styles (CTS), and criminal social identity (CSI), correlation through Bivariate was computed. Results indicated a significant relationship between PAS, CTS, and CSI, concerning the first main hypothesis. It was evident that juvenile delinquents who experienced parental authority had more criminal thinking styles and criminal social identity. The finding of a relationship between PAS and CTS is consistent with the finding of Kausar and Piquart (2016), who explored parenting styles and juvenile delinquency. Results showed that authoritarian parenting style was associated with high levels and authoritative parenting style with low levels of delinquency.

Further, the outcomes of the relationship between CTS and CSI are consistent with the results of Boduszek et al. (2014). Results suggested a direct relationship between criminal social identity and criminal thinking styles. The factors of CSI, namely in-group affect and in-group ties were significantly correlated to the factors of criminal thinking styles. Other than that parenting styles were also significant predictors of criminal social identity, meaning criminal social identity has various internal and external factors including association with criminal friends and inappropriate parental control or supervision (Boduszek et al., 2012). This indirect association of parenting can influence the CSI by criminal peers (Shaw & Scott, 1991).

The current findings are consistent to some researches and theoretical models, but in segments, like individuals who have experienced failure in their social life and showed nonconforming attitude on a personal level, would more likely to see themselves more inconsistent in terms of high levels of identity (Boduszek & Hyland, 2011). Moreover, the inability to reach significant goals of life may result in anger and frustration (Agnew, 2006); actually, these are unconstructive feelings of frustration, jealousy, anger, self-derogation, agony, antipathy, and aggression that may be motivated by familial factors such as lack of affection, inappropriate parenting styles, or parental rejection (Simon et al., 1991).

Following outcomes, some studies showed authoritative parenting reduces the likelihood of delinquency (Onyango, 2015). Accordingly, authoritative parenting encourages independence, self-reliance, and competency among children and teenagers (Checa & Abundis-Gutierrez, 2017); further, enhance intellectual development for psychosocial maturity (Kausar & Piquart, 2016). On contrary, there are several studies suggest that the other parenting styles (such as authoritarian and permissive) are not good predictors of healthy personality development because authoritarian parenting is predicting serious violence among adolescents (e.g., Kausar & Piquart, 2016). For instance, if parents show aggression or power assertion to control the behavior of children, then their children more likely to show the same behaviors to deal with others (Bandura, 1978; as cited by Kausar & Piquart, 2016). Similarly, permissive and neglectful parenting styles are also a predictor of juvenile delinquency (Hoeve, et al., 2009). For instance, children of permissive parents are more likely to be motivated by negative friends and delinquent peers (Jacobson & Crockett, 2000) and always have a risk of rule-breaking among them (Snyder & Sickmund, 1995).

Note. JCTSI = Juvenile Criminal Thinking Styles' Inventory; APS = Authoritative Parenting Style.
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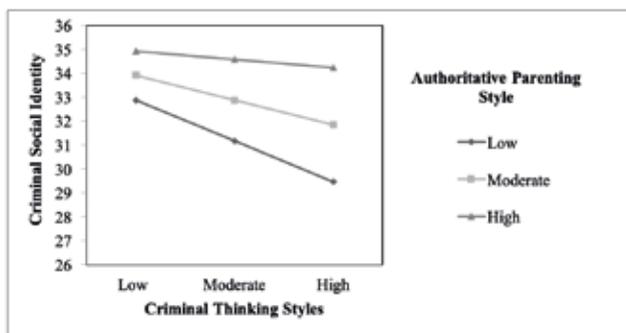


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Limitations and Further Suggestions

The longitudinal nature of the current research helps maintain the predictive nature of the relationship between parenting, criminal thinking, and criminal social identity, so extending the period of the longitudinal investigation and starting earlier in the adolescence stage may give better outcomes and help explore more in-depth issues. Additionally, no previous studies indicated the moderating role of parenting styles between criminal thinking styles and criminal social identity; thus, most probably this was the first attempt to empirically test the nature of these relationships. Keeping in view of the limitation of the current study, it is recommended that future researchers use multiple sources for data collection

REFERENCES:

- Agnew, R. (2006). *Pressured into crime: An overview of general strain theory*. Los Angeles, CA: Roxbury.
- Ashiq, A. (2015). Impact of urbanization on juvenile delinquency: a study of Muzaffar bad jail. *International Journal of Criminology and Sociological Theory*, 8(1).
- Babree, S. (1997). *Aggressive and nonaggressive children's perceptions of parental acceptance-rejection and control*. (Unpublished master's thesis. National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan). Retrieved from https://scholar.google.com.pk/scholar?q=Babree%2C+1997&btnG=&hl=en&as_sdt=0%2C5
- Bandura, A. (1978). Social learning theory of aggression. *Journal of Communication*, 28(3), 12-29. doi: 10.1111/j.1460-2466.1978.tb01621.x
- 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., & 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., & Hyland, P. (2012). Psycho-sociological review of criminal thinking style. *Journal of Humanistics and Social Sciences*, 1(1), 28-36.
- 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.
- Buri, J. R. (1991). Parental authority question naire. *Journal of personality assessment*, 57(1), 110-119.
- Checa, P., & Abundis-Gutierrez, A. (2017). Parenting and Temperament Influence on School Success in 9-13 Year Olds. *Frontiers in Psychology*, 8, 543.
- Chen, X., Rubin, K. H., & Li, D. (1997). Relation between academic achievement and social adjustment: Evidence from Chinese children. *Developmental Psychology*, 33(3), 518.
- Hoeve, M., Dubas, J. S., Eichelsheim, V. I., Van der Laan, P. H., Smeenk, W. H., & Gerris, J. R. M. (2009). The relationship between parenting and delinquency: A meta-analysis. *Journal of Abnormal Child Psychology*, 37(6), 749-775.
- Jacobson, K. C., & Crockett, L. J. (2000). Parental monitoring and adolescent adjustment: An ecological perspective. *Journal of Research on Adolescence*, 10(1), 65-97.
- Kauser, R., & Pinquart, M. (2016). Gender Differences in the Associations between Perceived Parenting Styles and Juvenile Delinquency in Pakistan. *Pakistan Journal of Psychological Research*, 31(2), 549-568.
- Onyango, D. A. (2015). *Effects of authoritarian parenting model on learner participation in early childhood education science class Kabondo division, Homabay county, Kenya* (Doctoral dissertation, University of Nairobi). Retrieved from <http://erepository.uonbi.ac.ke/handle/11295/95154>
- Panezai, S., Panezai, H., Wassan, A. A., & Saqib, S. E. (2019). Exploring juveniles' delinquent behavior and associated factors: across-country comparison of Pakistan and Thailand.
- Rafail, E., & Haque, A. (1999). Relationships between perceived parental acceptance-re

- jection and juvenile delinquency scores: A study of criminal and non-criminal adolescents. *Pakistan Journal of Psychological Research*, 14(1-2), 9-16.
- Rohany, N., Ahmad, Z. Z., Rozainee, K., & Shah razad, W. W. (2011). Family functioning, self-esteem, self-concept and cognitive distortion among juvenile delinquents. *The Social Sciences*, 6(2), 155-163.
- Rubin, K. H., Bukowski, W., & Parker, J. G. (2006). Peer interactions, relationships, and groups. In W. Damon, R. M. Lerner, & N. Eisenberg (Eds.), *Handbook of child psychology: Social, emotional, and personality development* (6th ed., Vol. 3, pp. 571-645). New York: Wiley. doi: 10.1002/9780470147658.chpsy0310
- Sana, F., & Rafiq, M. (2019). Development and validation of juvenile criminal thinking styles' inventory. *Pakistan Journal of Neurological Sciences*, 14(4), 24-34.
- Shagufta, S. (2015). *Criminal Social Identity in a Sample of Incarcerated Juvenile Offenders in Pakistan* (Doctoral dissertation, University of Huddersfield).
- Simons, R. L., Whitbeck, L. B., Conger, R. D., & Wu, C. I. (1991). Intergenerational transmission of harsh parenting. *Developmental Psychology*, 27(1), 159 - 171. doi: 10.1037//0012-1649.27.1.159
- Shaw, J. M., & Scott, W. A. (1991). Influence of parent discipline style on delinquent behaviour: The mediating role of control orientation. *Australian Journal of Psychology*, 43(2), 61-67. doi: 10.1080/00049539108259101
- Snyder, H. N., & Sickmund, M. (1995). *Juvenile offenders and victims: A focus on violence*. Pittsburgh, PA: National Center for Juvenile Justice.
- Taxman, F. S., Giuranna Rhodes, A., & Dumenci, L. (2011). Construct and predictive validity of criminal thinking scales. *Criminal Justice and Behavior*, 38(2), 174-187.
- Walters, G. D. (2016). The Parent-Peer Interface: Does Inductive Parenting Reduce the Criminogenic Effect of Delinquent Peers?. *Youth Violence and Juvenile Justice*, 14(4), 411-425.
- Walters, G. D. (2006a). Appraising, researching and conceptualizing criminal thinking: a personal view. *Criminal Behaviour and Mental Health*, 16, 87-99.
- Walters, G. D. (2006b). Proactive and reactive composite scales for the Psychological Inventory of Criminal Thinking Styles (PICTS). *Journal of Offender Rehabilitation*, 42(4), 23-36.
- Walters, G. D. (2003). Changes in criminal thinking and identity in novice and experienced inmates: Prisonization revisited. *Criminal Justice and Behavior*, 30, 399-421.

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Author's contribution:

Fatima Sana; data collection, data analysis, manuscript writing, manuscript review

Muhammad Rafiq; data collection, data analysis, manuscript writing, manuscript review

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