

Psychosocial Profile of Juvenile Delinquents

Abstract: The disarray and destruction due to deviant behavior is escalating in alarming proportions which is an awakening call to the society. The aim of the present study is to assess various psychosocial factors which play a crucial part in the exhibition of delinquency behavior. Purposive sampling was used to collect data after obtaining informed consent from a sample of 30 juveniles (15 heinous and 15 non heinous offenders). Independent sample test and product moment correlation is used to reveal that resilience factors like emotional insight, empathy, and availability of the family, connectedness with family, negative cognition and social skills are found to have correlation with delinquent behavior. Temperamental characteristics like activation control, attention, inhibitory control and perceptual sensitivity is negatively correlated with the delinquent behavior while aggression is positively correlated.

Key words: Juvenile delinquency, temperament, attachment, resilience, social skill, inhibitory control

Comment [A1]: The Abstract of this research is concise enough [142 words] to meet the recommendation [250 max. words] of the American Psychological Association (APA).

Introduction & Review: A juvenile can be referred as a child who has not attained a certain age (18 years) at which he can be held liable for his criminal acts like an adult person and have committed certain acts which are in violation of any law (Shrivastava, 2014). Due to alarming increase of the rate and gravity of delinquent behaviors, juvenile laws have been reviewed in many countries and have been made sterner. It is necessary to understand why a minor commits a crime to prevent future crimes from happening. Addressing the issues such as interpersonal relationships, peer pressure, stressful environments and personality traits that could led to the choices that the minor child has made can help them change their actions in the future.

One of the important factors to be assessed that is quite imperative for an individual's growth is resilience. It can be defined as a person's capacity to positively adapt or attain success despite having faced adverse situations like abused or neglected, witnessing violence, or living in poverty which can lead to many negative outcomes such as delinquency (Kaplan, 2005). Donnon

29 and Hammond (2007) identify two broad sets of factors related to a general framework for
30 understanding the development of resiliency: (1) intrinsic strengths or personality characteristics
31 or attributes of the individual and (2) extrinsic strengths or interpersonal settings or
32 environments. A resilient temperament, healthy close relationships with parents and with others,
33 are often referred as protective factors; provide encouragement, healthy beliefs, and offer
34 protection from negative environmental influences. (Thornberry et.al 1995).

35 Factors like emotional maturity, self esteem, parental models and patterns of parental authority,
36 the coping mechanisms of adolescents, the trends to not adapt and psychopathology play an
37 important role in the development of resilience (Tomita, 2010)

38 Another factor that is to be examined is temperament which plays a major role in inculcating
39 delinquency behavior. It can be defined as early developing individual behavior tendencies that
40 are biologically rooted, present from infancy onward, relatively stable over time and situations,
41 and are manifested in the context of social interaction (Schmeck and Poustka; 2001). Moffitt and
42 Caspi (2001) found that having a difficult temperament, which in their study is measured by
43 fighting, peer rejection, hyperactivity, and difficulty to manage the child, is associated with an
44 early onset of antisocial behavior. When highly-frustrated children fail at reaching a goal (i.e.
45 their goal is blocked), they easily experience irritation and anger. As a result, these children are
46 prone to externalizing their frustration and, ultimately, engaging in antisocial behavior (Schmeck
47 and Poustka (2001).

48 Attachment can be defined as a deep and enduring emotional bond that connects one person to
49 another across time and space (Ainsworth, 1973; Bowlby, 1969). The attachment relationship
50 with primary caregivers is very important as it provides infants with comfort and reassurance
51 when threatened as well as form a secure base which helps them to explore the world around
52 them. The findings of the study by Poduthase (2013) revealed the lack of parenting skills among
53 the parents of adolescents with delinquent behavior. Adolescents without delinquent behavior
54 experienced higher parental involvement, parental guidance, and attachment.

55 The accumulation of these factors might increase the probability of delinquency behavior.
56 Hence, it is crucial to understand its role in an individual's personality in order to be aware and
57 to utilize these factors in a more productive approach.

Comment [A2]: Having justified the introduction and review with relevant data, the literature in this paper is sufficient enough.

58 **METHODOLOGY:**

59 **Aim:** To assess the psychosocial factors which play a crucial role in exhibiting the delinquent
60 behavior of juveniles.

61 **Objectives:**

- 62 i) To find the pattern of temperament factors in juveniles exhibiting delinquent
63 behavior.
- 64 ii) To find the pattern of resilience factors in juveniles exhibiting delinquent behavior.
- 65 iii) To find the pattern of attachment factors in juveniles exhibiting delinquent behavior.
- 66 iv) To find the relation of resilience, temperament and attachment factors with the
67 delinquent behavior of juveniles.
- 68 v) To find the difference of resilience, temperament and attachment factors between
69 heinous and non heinous offenses.
- 70

71 **Research design:** Cross sectional research design was used for the study.

72 **Sample:** Thirty juveniles who are involved in delinquent activities are selected by using
73 purposive sampling from observation home in Ahmedabad and Surat. The age ranges from 10-17
74 years. Out of 30 juveniles, 15 have committed heinous crimes which are rape and murder; and 15
75 have committed non heinous offenses which are burglary, theft, kidnapping, physical assault and
76 cyber crime.

77 **Inclusion criteria:** The age range of the juveniles that has been selected for the data collection
78 was between 10 to 17 years and their minimum education qualification was kept as 4th standard.

79 **Exclusion criteria:** The age range of the juveniles cannot be less than 10 years or more than 17
80 years and education qualification cannot be less than 4th standard.

81 **Tools used:** The following tools were used for the study-

- 82 i) **Early Adolescent Temperament Questionnaire (EATQ-R):** The 65-item short form of
83 the Early Adolescent Temperament Questionnaire—Revised (EATQR; Ellis & Rothbart,
84 2001) is a revision of a measure developed by Capaldi & Rothbart (1992). The revised

85 questionnaire assesses 10 aspects of temperament related to self-regulation in
86 adolescents, including activation control, affiliation, attention, fear, frustration, high-
87 intensity pleasure, inhibitory control, perceptual sensitivity, pleasure sensitivity, and
88 shyness. Scales measuring aggression and depressive mood are included to facilitate
89 examination of relationships between temperament and traits relevant to socialization.
90 The revised measure was developed with a sample of 177 adolescents ages 10-16. Items
91 are rated on a 5-point scale. Ellis & Rothbart (2001) reported internal consistency
92 estimates (Cronbach's coefficient alpha) ranging from .65 to .82 for the 10 temperament
93 scales, .80 for the aggression scale and .69 for the depressive mood scale. There is a
94 scoring key available for the scoring and interpretation.

95 ii) **Adolescent Resilience questionnaire (ARQ):** The Adolescent Resilience Questionnaire
96 (ARQ) is developed by Deirdre Gartland (2011) which provides a comprehensive and
97 multidimensional assessment of the resources associated with resilience in adolescents.
98 The majority of scales are in the individual domain, reflecting the range of personal
99 characteristics identified as important for resilient outcomes. An adolescent's
100 connectedness and the availability of support in the external domains of family, peers,
101 school and community are also assessed. Items are rated on a 5 point scale and have 5
102 sections. First section has statements regarding oneself. The second and third section
103 includes statements about family and friends and the last two sections consist of
104 statements about school and community.

105 Results confirm the factor structure based on 12 scales. Internal consistency was
106 generally adequate which is between .60 and .90

107 iii) **Inventory of parent and peer attachment (Gay Armsden, Mark T. Greenberg; 1987)**
108 The IPPA was developed in order to assess adolescents' perceptions of the positive and
109 negative affective/cognitive dimension of relationships with their parents and close
110 friends. Three broad dimensions are assessed: degree of mutual trust; quality of
111 communication; and extent of anger and alienation. The instrument is a self-report
112 questionnaire with a five point likert-scale response format. The original version consists
113 of 28 parent and 25 peer items, yielding two attachment scores. The revised version
114 (2005) (Mother, Father, Peer Version) is comprised of 25 items in each of the mother,

115 father, and peer sections, yielding three attachment scores. For the revised version,
116 internal reliabilities (Cronbach's alpha) are: Mother attachment, .87; Father Attachment,
117 .89; Peer attachment, .92.

118 **Procedure of the study:** The aim of the study was explained to each of the sample and consent
119 is taken by signing in the consent form. Rapport is formed with each of the juveniles as they
120 might not feel comfortable enough to speak about their offenses and their views and thoughts
121 related to it. After ensuring their comfortable level and answering their doubts, the
122 questionnaires including socio demographic details were given to mark their answers following
123 the explanation of the instructions of each questionnaire. The data collected was analyzed
124 statistically.

125 **Statistical analysis:** Quantitative analysis done. Descriptive statistics and inferential statistics
126 were computed by the use of SPSS 20. Percentages were used to express the relative frequency
127 of the responses obtained. Independent sample t test was used to see the difference of the
128 different variables between heinous and non heinous offenses and product moment correlation
129 was used to find the relationship between the different variables.

130 **RESULTS & DISCUSSION:**

131 This study was intended to identify the patterns and relations of resilience, temperament and
132 attachment factors in delinquency behaviors of juveniles and also evaluate the difference in these
133 factors between heinous and non heinous offenders.

134 **Socio demographic details:**

135 Table 1: showing the descriptive statistics and frequency of the socio demographic details
136 collected from the sample (N=30):

Factors		Frequency	Percentages
Age (mean=15.76, SD=1.43)	10-12 years	1	3.3
	13-15 years	9	30.0
	16-17 years	20	66.7
Gender	Male	30	100
Religion	Hindu	26	86.7

	Muslim	4	13.3
Domicile	Rural	19	63.3
	Urban	11	36.7
Education (Mean=6.13, SD=1.94)	4-5 th standard	14	46.7
	6-8 th standard	10	33.3
	9-11 th standard	6	20.0
Family type	Nuclear	16	53.3
	Joint	8	26.7
	Extended	6	20
Siblings (mean=2.76, SD=1.75)	None	2	6.7
	1-3 siblings	18	60.0
	4-5 siblings	7	23.3
	6-8 siblings	3	10.0
Income of the offenders (mean=3233.33, SD=2132.39)	Yes	23	76.7
	No	7	23.3
Substance abuse	Yes	17	56.7
	No	13	43.3

137

138 As seen in the table, 66.7% of the sample (N=30) belong to the age (M= 15.76, SD= 1.43) of 16-
 139 17 years old. All the 30 samples are male out of which 86.7% Hindu. Sixty three percent are the
 140 rural inhabitants, only 36.7 % live in urban areas. In terms of education (M=6.13, SD= 1.94),
 141 46.7% studied till 4-5th standard and 33.3% studied till 6-8th standard. Some of the juveniles were
 142 still pursuing their studies. 53.3% of the juveniles live in nuclear families and 60% have 1-3
 143 siblings and 23.3% have 4 to 5 siblings. Seventy six percent (76.7%) have their own income
 144 (M=3233.33, SD= 2132.39) and fifty six percent were involved in substance abuse.

145 The predominant age of the juveniles exhibiting delinquent behavior-was from 13 to 17 years old
 146 which goes along with previous studies (Shamim et.al, 2009). Child delinquents compared with
 147 juveniles with a later onset of delinquency, are at greater risk of becoming serious, violent, and
 148 chronic offenders and have longer delinquency careers (Espiritu et al., 2001; Krohn et al., 2001).
 149 It has been found that majority of the offenders in the sample were rural inhabitants. In India,
 150 along with ethnic diversity there could be other reasons associated with it like less education as it

151 has been found that majority of the juveniles have studied till 4-5th standard only which is similar
 152 finding like in previous studies (Sahmey; 2013).

153 Juveniles that live in nuclear families with 1-3 siblings; majority of them are middle child or
 154 younger sibling (make it clear it with percentages). Many of the offenders have 4-5 siblings too.
 155 Kierkus and Hewitt (2009) reported that age and family size impacted the relationship between
 156 family structure and crime and delinquency. Specifically, older adolescents and those from larger
 157 families were at a higher risk for participating in juvenile delinquency. Moreover, it has been
 158 also seen that majority of the juveniles are involved in substance abuse behavior. Severe
 159 substance abuse is associated with increased rates of offending and more serious offenses. For
 160 example, in 2010, the Texas Juvenile Probation Commission found that twenty-five percent of
 161 all the juveniles referred were “frequent drug users.” (Cunico et.al, 2011)

162 **Correlation and pattern of resilience, temperament and attachment factors**
 163 **with delinquent behavior:**

164 Table 2: showing the descriptive statistics and correlation of all the subscales of resilience,
 165 temperament and attachment factors with delinquent behavior:

Factors		Mean	Standard Deviation	Correlation (r)	p value
Resilience	Confidence	21.50	3.57	-.085	.654
	Emotional insight	15.53	3.46	-.509**	.004
	Negative cognition	22.56	5.79	.509**	.004
	Social skills	20.06	5.63	.577**	.001
	Empathy/tolerance	15.80	4.25	-.797**	.000
	Connectedness (family)	19.30	4.67	-.036	.849
	Availability (family)	7.76	1.99	-.357*	.051
	Connectedness (peers)	24.50	5.40	.759**	.000
	Availability (peers)	22.20	5.06	.656**	.000
	Supportive environment	17.76	3.34	.253	.177
	Connectedness (school)	14.46	4.01	-.388*	.034
	Connectedness (community)	15.03	3.96	.265	.156
Temperament	Activation control	12.86	2.87	-.382*	.038

	Affiliation	13.33	4.19	.337	.069
	Aggression	21.66	4.93	.450**	.012
	Attention	16.03	3.15	-.384*	.036
	Depressive mood	13.70	3.71	.048	.800
	Fear	12.76	5.13	.040	.835
	Frustration	21.96	5.76	.337	.069
	Inhibitory control	10.63	2.78	-.420*	.021
	Pleasure sensitivity	15.26	4.00	.283	.130
	Perceptual sensitivity	9.16	2.10	-.420*	.021
	Shyness	8.10	2.23	.057	.766
	Surgency	18.66	4.36	.129	.498
Attachment	Mother	66.16	13.91	.367*	.046
	Father	59.93	11.60	.088	.645
	Peers	77.73	12.11	.498**	.005

166 ** correlation is significant at the 0.01 level. *correlation is significant at 0.05 level.

167

168 **Resilience:** Many factors of resilience correlated with delinquent behavior. Emotional insight is
169 significantly negatively related with delinquent behavior ($r = -0.509$, $p = 0.004$) suggesting that
170 more the level of emotional insight is, the less is the probability of exhibiting delinquent
171 behavior. This finding is synonymous to the finding of Kooshsar and Bonab (2011) that
172 behavioural symptoms of delinquent adolescents can be predicted from their emotional
173 intelligence. The adolescents with higher in emotional intelligence were lower in behavioural
174 symptoms. Similarly, empathy also shows significant negative relation ($r = -0.79$, $p = 0.00$) with
175 delinquent behavior which means that juvenile offenders lack empathy. Delinquents are
176 significantly delayed or arrested in the development of empathy. Moral judgment and empathy
177 were positively correlated and both measures were negatively correlated with cognitive
178 distortions which increase the probability of acquiring delinquency behaviour (Langstorm, 2006)

179 Negative cognition ($r = 0.50$, $p = 0.004$) and social skills ($r = 0.57$, $p = 0.001$) were found to be
180 positively correlated with delinquency behavior. The incarcerated juveniles evidenced higher
181 levels of negative cognition. Most notably, self-serving cognitive distortions specifically related
182 to externalizing behaviors, whereas self-debasing cognitive distortions specifically related to
183 internalizing behaviors (Barrigga, 2000).

184 In terms of family, school and peer factors, it is found that availability of the family ($r = -0.35$, p
185 $= 0.05$) and connectedness with the school ($r = -0.38$, $p = 0.034$) were negatively correlated. It
186 indicates that the family members of the adolescent should be available for them both
187 emotionally and physically and if the adolescent is feels connected with the teachers and other
188 school members, it diminishes the chance of acquiring delinquent behavior. Poor parental
189 supervision is the strongest predictor of offending (Farrington and Loebar, 1999). On the other
190 hand, connectedness with the peers and availability of the peers is significantly positively
191 correlated with the delinquent behavior. It is more prevalent when the peer group has a negative
192 influence on the adolescent which help them in learning delinquent behaviour. The
193 unconventional worlds of connectedness are those social ecologies in which they typically
194 dictate the norms, activities, and structure that govern what youth do. Youth at risk for engaging
195 in violence often establish an imbalance, having more unconventional than conventional forms
196 of connectedness (Karcher, 2004).

197 The factors which are scored highest in the entire sample ($N=30$) are negative cognition
198 ($M=22.56$, $SD= 5.79$), connectedness with the peers ($M=24.50$, $SD= 5.06$), availability of the
199 peers ($M= 22.30$, $SD= 5.06$), social skills ($M= 20.06$, $SD= 5.63$) and confidence ($M=21.50$,
200 $SD=3.57$). The factors where the lowest scores are obtained are availability of the family for the
201 adolescent ($M= 7.76$, $SD= 1.99$), emotional insight ($M=15.53$, $SD= 3.46$), empathy ($M= 15.80$,
202 $SD=4.25$) and connectedness with the school ($M= 14.46$, $SD= 4.01$).

203 **Temperament:** In temperament scale, factors such as activation control, that is, the capacity to
204 stop performing an action when there is a strong tendency to avoid it; is negatively correlated
205 ($r= - 0.38$, $p=0.03$) with the delinquent behavior of the juvenile. It indicates that if the juvenile
206 lack in activation control then he would be more susceptible to delinquent behavior. The direct
207 effects of activation control on peer rejection, association with deviant peers and delinquency
208 were found, while activation control remained a significant predictor of delinquency net of
209 association with deviant peers. (Chapell; 2007)

210 It has been also found that attention is negatively correlated ($r = - 0.38$, $p = 0.36$) with delinquent
211 behavior. If the juvenile have problem in the capacity to focus attention as well as to shift
212 attention when desired then it might turn into a risk factors for acquiring delinquent behavior.
213 Higher levels of defiant and/or aggressive behavior lead to antisocial acts as compared with

214 lower levels of defiance and antisocial acts (Pratt et.al 2006) Likewise, inhibitory control ($r = -$
215 0.42 , $p = 0.02$) and perceptual sensitivity ($r = - 0.42$, $p = 0.02$) was also negatively correlated
216 with delinquent behavior which means that youths with greater delinquent participation tended to
217 have personalities characterized by sensitivity and weak constraint. When negative emotionality
218 and tendency to experience aversive affective states is accompanied by weak constraint or poor
219 inhibitory control, negative emotions may be translated more readily into antisocial acts (Regoli
220 et.al, 2012; Rey et.al 2015).

221 On the other hand, aggression ($r = 0.45$, $p = 0.01$) is positively correlated with delinquency
222 behavior. Both reactive aggression and proactive aggression significantly and positively
223 predicted delinquency (after controlling for proactive aggression and reactive aggression,
224 respectively), with proactive aggression being a stronger predictor. (Ang et.al, 2016)

225 The highest scores obtained on subscales are aggression ($M=21.66$, $SD= 4.93$), frustration ($M=$
226 21.96 , $SD= 5.76$) and surgency (18.66 , $SD= 4.36$) for the entire sample ($N=30$). The factors
227 which have obtained lowest score are shyness ($M= 8.10$, $SD= 2.23$), perceptual sensitivity ($M=$
228 9.16 , $SD= 2.10$), inhibitory control ($M= 10.63$, $SD= 2.78$) and activation control ($M=12.86$, $SD=$
229 2.87).

230 **Attachment:** It can be seen that attachment of mother with the juveniles are positively correlated
231 ($r=0.36$, $p=0.46$) with delinquent behavior. As it is reported by the delinquents itself, which
232 comprises of letting them do what they want and understanding their perspective too. Some of
233 the juveniles are more attached to their mother as their father is not available for them. Children
234 from broken homes are more prone to delinquency as resentment towards parents or towards the
235 parents who don't live with them made them less affectionate and communicative and also
236 because the custodial parent may provide less supervision and have less control over the type of
237 friends they made (Hirschi, 1994).

238 It has also been found that there is positive correlation of delinquency behavior and attachment
239 with peers ($r=0.49$, $p=.005$). Adolescents tend to get influenced easily by observing behaviors
240 especially from those who are attached with them and those from whom they seek acceptance.
241 Many juveniles are in a group while involving in such acts. This form of participation in
242 deviance is a direct affect from deviant peers (Simons et al 1991). Their new deviant friends

243 encourage and reinforce them to participate in deviant behaviors. Some children begin to affiliate
 244 with delinquent friends during adolescence because it can be deemed as normal (Buehler 2006).

245 **Difference of the patterns of resilience, temperament and attachment factors between**
 246 **heinous and non heinous offenses:** It is important to assess to see the difference of resilience,
 247 temperament and attachment factors between heinous offenses which involved rape and murder
 248 and non heinous offenses which include burglary, theft, kidnapping, cyber crime and physical
 249 assault.

250 Table 3: showing the difference of the all the factors between heinous and non heinous offenses:

Factors		Heinous		Non heinous		T	P value
		Mean	SD	Mean	SD		
Resilience	Confidence	21.80	3.70	21.20	3.54	0.45	0.65
	Emotional insight	13.80	3.62	17.26	2.28	-3.13**	0.004
	Negative cognition	25.46	4.83	19.66	5.31	3.12**	0.004
	Social skills	16.86	3.99	23.26	5.28	-3.74**	0.001
	Empathy/tolerance	12.46	2.79	19.13	2.41	-6.98**	0.000
	Connectedness (family)	19.46	5.39	19.13	4.01	0.19	0.84
	Availability (family)	7.06	1.79	8.46	1.99	-2.02*	0.05
	Connectedness (peers)	20.46	3.88	28.53	3.24	-6.16**	0.000
	Availability (peers)	18.93	3.73	25.46	4.03	-4.60**	0.000
	Supportive environment	16.93	2.73	18.60	3.77	-1.38	0.17
	Connectedness (school)	12.93	3.67	16.00	3.85	-2.23*	0.03
	Connectedness (community)	14.00	3.35	16.06	4.35	-1.45	0.15
Temperament	Activation control	17.00	6.03	13.13	4.79	2.14*	0.03
	Affiliation	12.93	2.73	15.20	3.74	-1.89*	0.05
	Aggression	22.40	5.23	19.53	4.24	1.64	0.11
	Attention	14.86	3.81	17.46	2.53	-2.19	0.36
	Depressive mood	14.20	3.50	13.86	3.64	0.25	0.80
	Fear	15.20	4.82	15.57	3.79	-0.21	0.83
	Frustration	14.06	9.42	19.13	4.29	0.50	0.77
	Inhibitory control	14.26	6.52	12.06	2.86	1.19	0.24

	Pleasure sensitivity	17.80	2.67	16.13	3.15	1.55	0.13
	Perceptual sensitivity	13.13	4.79	9.80	2.17	2.45*	0.02
	Shyness	9.00	3.96	9.33	1.63	-0.30	0.76
	Surgency	17.73	5.16	16.53	4.37	2.10*	0.03
Attachment	Mother	63.33	14.99	71.54	9.61	-3.01*	0.05
	Father	58.93	11.33	60.93	12.18	-0.46	0.64
	Peers	71.80	9.74	83.66	11.56	-3.10*	0.05

251 ** correlation is significant at the 0.01 level. *correlation is significant at 0.05 level.

252

253 **Resilience:** As we can see from table 3, emotional insight is less in heinous offenses (M = 13.80,
 254 SD = 3.62) than non heinous offenses (M = 17.26, SD = 2.28). The juveniles who are involved in
 255 heinous offenses have difficult in controlling their emotion and managing them and they go by
 256 the instinct more than thinking whether that act is appropriate or not. They lack in the aspect
 257 where there is awareness of their own emotions and even others (Meyer, 2010). Social skill is
 258 found to be very low in heinous (M = 16.86, SD = 3.99) compared to non heinous offenses (M =
 259 23.26, SD = 5.28). The juveniles lack in productive communication and perceive the
 260 environment in an odd and weird manner. They lash out at others frequently and display
 261 inappropriate behavior (Gormang, 2000).

262 Negative cognition is high in heinous (M = 25.46, SD = 4.83) and low in non heinous offenses
 263 (M = 19.66, SD= 5.31). Empathy is also very low in heinous (M = 12.46, SD = 2.79) than in non
 264 heinous (M = 19.13, SD = 2.41). Juveniles cannot objectively grasp the relationship between
 265 themselves and those around them, they tend to cling to their own beliefs, negative feelings
 266 towards others and have excessive feelings of being unnecessarily persecuted. This distorted
 267 view leads to inappropriate reactions which contribute to them committing an offence
 268 (Watanabe, 2013). "Empathy erosion" arises from corrosive emotions like bitter resentment,
 269 desire for revenge, hatred, or the desire to protect.

270 In family, peers and school section, availability of the family is low in heinous (M = 7.06, SD =
 271 1.79) than in non heinous (M = 8.46, SD = 1.99). Similarly, heinous offenders find less
 272 supportive environment (M = 16.93, SD = 2.73) than non heinous (M= 18.60, SD = 3.77).
 273 Availability of family is important and the result indicated that the more heinous the crime is, the

274 less available the family members are for the offenders (Animasahun and Aremu; 2005). Family
275 can be less available due to number of factors like more number of children to take care of,
276 broken families, death of one parent etc. Peers also play a crucial role as they influence the
277 adolescent a lot and have the capability to pressurize and convince the juvenile to act out some
278 delinquent behavior. In the present study, there are many juveniles in the sample who are being
279 forced to commit some delinquent behavior majorly the non heinous offenses like burglary and
280 theft.

281 **Temperament:** In temperament scale, activation control is found high in heinous ($M = 17.00$,
282 $SD = 6.03$) than in non heinous offenses ($M = 13.13$, $SD = 4.79$). The probable reason based on
283 the available neuro-scientific data, the frontal lobe, especially the prefrontal cortex, is among the
284 last parts of the brain to fully mature. The frontal lobes are responsible for impulse control, in
285 charge of decision-making, judgment and emotions and therefore crucial when fixing
286 “culpability” in the case of juvenile delinquency. Teenagers tend to be impulsive and prone to
287 mood swings because the limbic system which processes emotions is still developing (Steinberg
288 and Scott, 2003; Krishnan, 2015).

289 There is significant difference found in affiliation factor and it is found low in heinous offenders
290 than in non heinous offenses. Juveniles involved in heinous offenses have low need to feel a
291 sense of involvement and belonging within a social group which also supports the other findings
292 of the study where it is found that they are low in other factors like connectedness and
293 availability of peers and social skills. Moreover, antisocial individuals choose to affiliate with
294 deviant peers, and that affiliating with deviant peers is associated with an individual’s own
295 delinquency (Monahan et.al 2009). Perceptual sensitivity is high in heinous ($M = 17.80$, $SD =$
296 2.67) than in non heinous offenders ($M = 16.13$, $SD = 3.15$) and surgency is relatively high in
297 heinous offenders ($M = 17.73$, $SD = 5.16$) when compared to non heinous offenders ($M = 16.53$,
298 $SD = 4.37$) in the entire sample ($N = 30$). Heinous offenders is high in perceptual sensitivity
299 which means they are aware of the slight, low intensity stimulation in the environment due to
300 which they might feel aroused to act according to their instinct which could be hard for them to
301 control as they are found to be high in high intensity pleasure (surgency). Adolescents
302 characterized by high temperamental surgency were more likely to exhibit hyperactivity and
303 aggression (Berdan et.al, 2008).

Comment [A3]: This minor typo needed a correction. Double space between characters:) and surgency. Corrected by me.

304 **Attachment:** Significant difference is found between heinous and non heinous offenses in
305 attachment of mother ($t = -3.01, p = 0.05$) and attachment of peers ($t = -3.10, p = 0.05$) with the
306 offenders ($N = 30$). Both mother's and father's separate communication and their interaction
307 effect was linked to the development of delinquent behavior. A satisfactory mother-adolescent
308 communication was much more important compared to the father-adolescent communication
309 (Moitra et.al 2014). High attachment with non delinquent peers can also play an important role in
310 curbing delinquency behavior of an adolescent.

311 **Summary of the finding:**

312 This study focuses on the relationship, difference in pattern and the role of the resilience,
313 temperament and attachment with heinous and non heinous delinquent offenders. The findings
314 might help to focus on these factors and manage it in order to inculcate more productive
315 behavior. The probable grounds behind those acts and might help in forming a rectifying plan for
316 them in order to reform them into responsible citizen of the society. However, as the sample size
317 is small ($N=30$), it might be difficult to generalize the findings.

318 Hence, in future, a larger randomized sample could be taken and intervention techniques can also
319 be incorporated.

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Comment [A4]: Data analysis and results combined descriptive and inferential statistics to explore the significance and relationship between factors. This is followed from the nature of research sample and the ordeal of selection.

This is perfect and no further correction is needed.

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Comment [A5]: Please, use the latest APA reference style: APA format 6th edition.