



IMPULSIVITY AND AGGRESSION AS A PREDICTORS OF JUVENILE TENDENCIES AMONG LATE ADOLESCENTS: ROLE OF SELF-ESTEEM

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Abstract- *The present research was intended to investigate aggression and impulsivity as indicators of juvenile characteristics in late adolescents. Further, it aimed to investigate the moderating role of self-esteem in the predictors of juvenile tendencies. A convenient sampling technique collects data from late adolescents at colleges and universities. Data was collected from two hundred and sixty Sargodha City University and College adolescents. The Barrat scale of impulsiveness (BIS-II, 1995), the Orpinas Aggression scale, the Self-esteem scale, and the Juvenile delinquency scale were used for data collection. Correlation, Regression analysis, and process were used to analyze the relationship, prediction, and moderating role of self-esteem and juvenile tendencies. Correlation analysis indicated that there was a significant relationship between all study variables. Further findings indicated impulsivity and aggression are significant positive predictors of juvenile tendencies, as self-esteem negatively predicts juvenile tendencies. The findings of the present research robust moderating effect of self-esteem on the connection between aggression and juvenile criminality and*

Keywords: *Impulsivity, aggression, juvenile delinquency, self-esteem*

INTRODUCTION

Late adolescence is a critical period marked by increasing autonomy, identity exploration, and establishing social connections beyond the family unit. During this phase, impulsive tendencies may drive individuals to seek novel experiences, often without thoroughly evaluating potential adverse outcomes (Phulwarisharif, 2020). According to one report, impulsivity is increasing among young people. Almost 16.9% of the U.S. population in 2005-2006 self-reported impulsivity (Jamie et al., 2012). As individuals transition from adolescence to adulthood, the interplay between these psychological factors can play a pivotal role in shaping their behaviour and decision-making processes. Impulsivity, characterized by a tendency to act without forethought or consideration of consequences, can lead to rash actions that may contribute to engagement in risky behaviours, delinquency, and conflict. Similarly, heightened levels of aggression, which encompass both physical and verbal hostility, can exacerbate conflicts, strain interpersonal relationships, and fuel involvement in aggressive acts (Ren et al., 2021). In the context of the rule of law, impulsivity refers to the tendency of late adolescents to act without fully considering the legal consequences of their actions. The rule of law emphasizes that individuals are responsible for their actions, regardless of age or psychological characteristics (Mathias et al., 2008). While late adolescents might be more prone to impulsive behaviour due to developmental factors, they are still expected



to adhere to the law and be held accountable for unlawful actions. Many studies have been constructed to find impulsivity and its related bio-psycho-social biological variables in recent years. In past years, some research has been carried out to combine data. This is because there is no clear definition of impulsivity or unity over its significant parts. Because of these situations, there is no moral theory on impulsivity expansion and its relations with inner and outer stimulants; therefore, it is essential to measure each impulsivity part and its role in provoking risky behaviours in detail. So, the present study aimed to investigate adolescent characteristics of impulsiveness or aggression that lead to juvenile tendencies and identify the role of self-esteem between aggression and impulsivity among late adolescents.

LITERATURE REVIEW

Impulsivity and aggression are increasing nowadays, which are the common symptoms of many disorders and also

lead a person to juvenile tendencies. A literature review indicated there must be some other factors that play an essential role in the development of Juvenile Tendencies.

Previous researchers studied the relationship between impulsivity and aggression but did not study them as a predictor of juvenile tendencies and the role of self-esteem. An extensive literature study indicated something must strengthen the relationship between impulsivity, aggression, and juvenile behaviour. Impulsivity can be examined from different angles and described from various definitions (Wang et al., 2021; Walters, 2022). Impulsivity, characterized by acting without careful consideration of consequences, often intersects with aggression, the display of hostile behaviour, reciprocally. Impulsive tendencies can contribute to increased aggression among adolescents. Individuals acting impulsively without thoroughly evaluating the repercussions may engage in confrontational and aggressive behaviours, such as verbal conflicts or physical altercations. The immediacy of these reactions, fueled by impulsivity, can amplify the likelihood of escalating conflicts and adverse outcomes in interpersonal relationships. Furthermore, impulsive acts of aggression can contribute to a cycle of retaliation and animosity, further exacerbating tension and harming individuals' social interactions (Bernstein et al., 2015).

The relationship between these factors becomes even more intricate when considering juvenile tendencies, encompassing a broad spectrum of adolescent behaviours. Self-esteem is another pivotal factor that interacts with impulsivity, aggression, and juvenile tendencies. Adolescents with low self-esteem might resort to impulsive and aggressive behaviours to compensate for their inadequacy or insecurity. The need to assert dominance or gain peer recognition can lead to impulsive displays of aggression to boost their self-esteem. Conversely, adolescents with high self-esteem may be more adept at managing impulsive tendencies and channelling their energies into more constructive outlets, diminishing the likelihood of aggressive Such behaviours, in turn, can amplify aggression, especially in situations where confrontations or challenges arise (Shahzad, & Yasmin, 2015).

According to a characterological standpoint, Eysenck (1993) said that impulsivity is an accidental activity that can build someone's mind. Dickman (1993) explains it as dysfunctional impulsivity is the act of taking something with the absent mind or with less thought in contrast with that person with is similar in abilities and evidence. Further, Dickman explained a new concept about impulsivity as an Inhibition Component that can establish the state of poor considerations and that can create a cause for impulsivity.

Numerous psychological mechanisms may indicate the path of impulsive behaviour. Specific psychological processes might lead to impulsive behaviours. However, Still present is the definition of impulsivity. Growth in this area will support service providers with mental illnesses or brain damage who are crucial for reducing impulsive behaviour (Walters, 2022).

A psychological trait known as impulsivity is the propensity to act without thinking, make snap decisions, and not comprehend the present and future (Barratt, 2019). Pung et al. (2015) claim that impulsivity is a personality trait linked to the physiological foundations of personality but does not precisely include any specific physiological fundamentals, such as attentiveness without direction.



The impulsivity construct is crucial in academic and clinical studies on risky behaviour and a few psychological diseases. Impulsivity is a disease diagnostic indicator in the Statistical Diagnostic Manual (DSM) and the ICD. It needs to be clarified why it affects psychological disorders and increases dangerous behaviours. Conflict in characterizing impulsiveness, its primary mechanism, and dimension approaches will probably be seen as a significant factor in the inability to build a thorough theory outlining the development of impulsivity and its role in psychopathology (Zhou et al., 2014).

The behaviour of others and perhaps even we daily might be characterized as aggression. It is stated that if people shout at one other or strike each other as a sign of aggression, or if they pass another automobile while driving, or even though they can switch on the table with their fists when they are feeling hostile. However, damaging actions, such as sportsman injury during a game or the tragic death of a soldier during the war, cannot be associated with aggressiveness or frustration. This term is hard to explain in a sentence; societal psychologists, judges (and lawyers) spend too much time determining what should and should not be considered aggression (Pung et al., 2015).

Societal Psychologists explain aggression as an act that can hurt another person who does not hurt back (Srinivasan & Chandra, 2018). It includes the insight of purpose, which is considered different from both perspectives. Depending on the purpose and situation, this harmful action can be regarded as aggressive or cannot be done simultaneously. Harm with intention can be understood as worse than accidental damage, even when dangerous acts are similar (Ames & Fiske, 2013).

Juvenile delinquency, also known as young criminality, is the more youthful individuals of the majority age participating in illegal behaviours (Kaya & Buzlu, 2016). Anyone under 18 is considered a juvenile offender in the U.S. The minimum age for criminal activity in Georgia, New York, Michigan, Missouri, North Carolina, Hampshire, Texas, and Wisconsin is 17, and committing an act. At the same time, an adult will be considered a crime. It is also possible that individuals under 18 will face charges and be regarded as adults. However, this will depend on the seriousness and nature of the offence they commit. Nowadays, most legal systems reference particular procedures, including prisons and courts, to deal with that kind of youngster.

Young people in their early 20s are arrested at a higher rate now than in previous years, which led many academics to conclude that zero-tolerance policies in the criminal justice system are to blame for the shift in young people's behaviour. Juvenile offences can range from status offences like underage smoking to violent offences and property thievery. According to official U.S. Government statistics, the adolescent crime rate in the country decreased to 12%, which is higher than in 1993. According to this statistic, most juvenile behaviours in previous decades have been peaceful.

Because most teenagers commit non-violent crimes once or twice during adolescence, juvenile activities are seen as typical adolescent behaviour. Repeated and violent offences raise the likelihood of later follow-ups and criminal involvement attempts. When it occurs, the committer is likelier to display antisocial behaviours, even in adolescence. Juvenile behaviour encompasses a range of actions that deviate from socially accepted norms, including delinquent behaviours such as theft, vandalism, and substance abuse. The correlation between impulsivity, aggression, and juvenile behaviour suggests that adolescents who exhibit impulsive and aggressive tendencies might be more likely to engage in these actions.

Previous researchers studied the relationship between impulsivity and aggression but did not study them as a predictor of juvenile tendencies and the role of self-esteem. An extensive study of the literature indicated there must be something that strengthens the relationship between impulsivity, aggression, and juvenile behaviour, so the present study explored the additional role of self-esteem. It will provide another way to see juvenile behaviours. The present study's uniqueness is that it explored the role of self-esteem between impulsivity and aggression as predictors of juvenile tendencies.



OBJECTIVE

1. To investigate the predictors of juvenile delinquent tendencies
2. To analyze the moderating role of self-esteem on juvenile delinquency and its predictors.

HYPOTHESIS

The following hypotheses were formed for testing:

1. There would be a significant positive relationship between impulsivity, aggression, and juvenile tendencies.
2. Aggression and impulsivity would be positive predictors, whereas Self-esteem would be a negative predictor of juvenile tendencies.
3. Self-esteem would moderate the relationship between impulsivity and aggression in juvenile behaviour.

SUBJECT AND METHOD

Participant

A sample of 260 students aged 18-22 was collected from 03 private colleges and 02 universities in Sargodha City, using a convenient sampling technique. Only late adolescents with age range (18-26) were included in the sample. Adolescents who could easily read and write were included, whereas adolescents who were not studying and couldn't read and write were excluded. The current study used a quantitative research design and a survey methodology to collect data.

Instruments

Aggression scale (Orpinas & Frankowski, 2001). Assesses Aggression One way to measure aggressive behaviour at school is developed by (Pamela et al., 2001)—a scale comprised of 11 items. Response rates are previous one-week behaviour that a person shows once, 2 times, three times, four times, five times, six times, and more. The response rate is 0-6. Alpha reliability is around .86 to .88

Barratt Impulsivity Scale (BIS-II et al., 1995). The most widely used scale for impulsivity is the Barratt Impulsivity Scale (BIS-II), created by Dr. Ernest Barratt (1995). It has 30 questions with ratings ranging from 1 (never) to 4 (always). The BIS-11 was created to evaluate an individual's level of impulsivity. It has three dimensions: Items 1, 2, 3, 4, 5, 6, 7, and 8 are part of the Attention Facet. (2) Included in the motor are (9,10,11,12,13,14,14,15,16,17,18, and 19) Items 20 through 30 under the Planning Facet are included. According to the author, the scale's internal consistency is ($\alpha=0.81$), while in the current study, it is ($\alpha=.77$).

The scale of Self-Esteem (Rosenberg, M. 1965). The participant's level of self-esteem was assessed using Rosenberg's self-esteem scale, created by Rosenberg in 1965. Ten statements are included in the scale, and responses are given on a Likert scale, with 1 being the most substantial agreement and 5 being the most substantial disagreement. The scores for items 2, 5, 6, 8, and 9 are totaled in reverse order. Maintain a continuous scale for scores. Poor scores reflect poor self-esteem, whereas high scores reflect good self-esteem. According to the author, the scale has an internal consistency of ($\alpha=.81$). Self-esteem in the current study demonstrates internal consistency ($r=.69$).

Juvenile delinquency (Thornberry, 2003). Thornberry et al., 2003 established this scale. It was applied to gauge young offending. There were eight things in it. Respondents are asked how frequently in the previous month they had been suspended or had committed theft, shoplifting, cheating, or damage to other people's property. Response rates range from zero to one to five, six to nine, ten to nineteen, and twenty or more. According to the author, this scale has an alpha reliability of about .91.

Procedure

First of all, permission was obtained from the supervisor. To use the scales, permission was obtained from the authors. To obtain authorization to access their organizations' data, the heads of the organizations were approached. Each subject gave their informed consent. After briefing them about the questionnaires and study, a set of questionnaires was given to the participants, including



the Questionnaire of Pamela Orpinas and Ralph Frankowski aggression scale, Barratt Impulsivity scale, Rosenberg Self-esteem scale, and Thornberry Juvenile delinquency scale. They were guided on how to answer the questions. Each participant received the instructions. Participants were instructed to base their responses on their opinions because there were no correct or incorrect answers. The demographic sheet was also attached with the questionnaire to get information about gender, age, education, father's designation, Birth order, father's income, Family system, and Sector.

RESULTS

Table 1 Descriptive Properties of Study Variables (N =260)

Variable	M	SD	a	Range	
				Actual	potential
Impulsivity	77.28	10.21	.62	47-123	1-4
Aggression	20.70	14.09	.78	0-66	0-6
Self Esteem	32.57	5.48	.65	18-48	1-5
Juvenile Delinquency	10.60	9.95	.60	0-77	0-5

Table 1 shows the psychometric properties of the study variables. The reliability coefficient of all the study variables is higher than .60, which shows that the internal consistency of the variables is good. The skewness value for all variables is less than 2, which is satisfactory. It showed that the univariate normality of data is manageable, and we can proceed toward further analysis.

Table 2 Correlation among Study Variables (N=260)

Variables	1	2	3	4
Impulsivity	.	.16**	.15*	.09
Aggression	.	.	-.33**	.36**
Self Esteem	.	.	.	-.19**
Juvenile Delinquency

***p* < .01. **p* < .05.

Table 2 shows the relationship among study variables. The results showed that impulsivity has a significant positive correlation with aggression ($r = .18, p < .01$) and self-esteem ($r = .15, p < .05$). In contrast, impulsivity has a non-significant relationship with juvenile delinquency ($r = .09, p = n.s$). Findings indicated that aggression has a significant negative relationship with self-esteem ($r = -.33, p < .01$) and aggression has a significant positive relationship with juvenile delinquency ($r = .36, p < .01$). Further results indicated that self-esteem has significant negative relationship juvenile delinquency ($r = -.19, p < .01$).

Table 3 Linear Regression Analysis showing the prediction of juvenile delinquency by Impulsivity, Aggression and self-esteem among late adolescents (N = 260)

Variable	B	ΔR^2	F
Impulsivity	.09	.06	2.57
Aggression	.36***	.13	39.71***
Self-esteem	-.19**	.03	9.95

****p* < .001.

Linear regression analysis is run, and regression analysis results show a 13%–variance in the dependent variable. The table further shows that Δ the R^2 value of .03 indicates a 3% variance of self-esteem for juvenile delinquency among late adolescents. However, self-esteem significantly negatively affects juvenile delinquency among late adolescents. The effect of impulsivity on juvenile delinquency among late adolescents was found to be non-significant for predicting juvenile delinquency among late adolescents.

Table 4 Moderating Effect of Self-Esteem in the Relationship between Aggression and Juvenile Delinquency (N = 260)

Predictors	<i>B</i>	S.E	95 % <i>CI</i>		Outcome
			<i>LL</i>	<i>UL</i>	
Constant	12.71	6.46	-.02	25.45	Juvenile
Self-esteem	-.12	.18	-.58	.15	delinquency
Aggression	.13	.296	-.45	.71	
Self-esteem × Aggression	.00*	.00	-.01	-.00	
<i>R</i> ²	.14				
<i>F</i>	13.98***				

Note. *B* = standardized coefficient, *LL* = Lower limit, *UL* = Upper limit, *CI* = Confidence interval.
****p* < .00, ***p* < .01.

Table 4 indicates the moderating effect of self-esteem in the relationship between aggression and juvenile delinquency. The value of $R^2 = .14$ indicates a 14% variance explained by the predictor in the outcome variable with $F(1, 259) = 13.98, p < .001$. The results shows that self esteem ($\beta = -.12, p > .05$), aggression, ($\beta = .13, p > .05$), neuroticism × ostracism ($\beta = .00, p < .01$) has significant effect on juvenile delinquency. Results reveal that self-esteem significantly moderates the relationship between aggression and juvenile delinquency.

Table 5 Moderating Effect of Self-Esteem in the Relationship between Impulsivity and Juvenile Delinquency (N = 260)

Predictors	<i>B</i>	S.E	95 % <i>CI</i>		Outcome
			<i>LL</i>	<i>UL</i>	
Constant	64.32	28.69	7.72	120.74	Juvenile
Self-esteem	-1.99	.89	-3.7	.23	delinquency
Impulsivity	-.52	.36	-1.2	.19	
Self-esteem × Impulsivity	.02	.01	-.00	.04	
<i>R</i> ²	.01				
<i>F</i>	3.27				

Note. *B* = standardized coefficient, *LL* = Lower limit, *UL* = Upper limit, *CI* = Confidence interval.

Table 5 indicates the moderating effect of self-esteem in the relationship between impulsivity and juvenile delinquency. The value of $R^2 = .01$ indicates 1% variance that is explained by the predictor in the outcome variable with $F(1, 259) = 3.27, p > .05$. The results show that self-esteem ($\beta = -1.99, p > .05$), Impulsivity, ($\beta = -.52, p > .05$), neuroticism × ostracism ($\beta = .02, p > .05$) has a non-significant effect on juvenile delinquency. Results reveal that self-esteem is not an essential moderator in impulsivity and juvenile delinquency.

DISCUSSION

The current study investigated factors influencing late adolescent juvenile tendencies and the moderating effect of self-esteem. This study was conducted on a sample of 260 adolescents. This study examined the relationship between study variables and the moderating role of the variable. Some demographic variables, i.e., gender, father's job type, Sector, education, family system, and birth order, were included. In the present study, the alpha reliability of every scale has been obtained. In this study, the psychometric property of all scales was also examined. The data were analyzed statistically in terms of mean, standard deviation, correlation, regression, t-test, and one-way ANOVA was applied. Results showed that the alpha reliability of the scales ranges from .65 to .79 (Table 2). According to George and Mallery (2003), these alpha reliability values were also acceptable. The value of kurtosis shows that the normality of data is not problematic. After analyzing the reliability and descriptive statistics, Pearson's correlation was computed. Results showed a significant relationship among all study variables, which supports 1st hypothesis that there is a significant relationship between all variables.



Findings are consistent with Srinivasan, Rentala, and KuKumar's (2023) study. They suggest that impulsive individuals might be more prone to aggressive outbursts, as they might react without fully processing their emotions. This impulsive aggression can contribute to conflicts and strained relationships, further influencing delinquent behaviours. Recently, a study was conducted on Chinese adolescents to find out the relationship between self-esteem, and they found that aggressive behaviours can result from frustration, insecurity, or the desire to establish dominance. Adolescents with low self-esteem might resort to aggression to assert themselves or cope with negative self-perceptions. Furthermore, it was also found that Adolescents with low self-esteem might engage in delinquent behaviours to gain attention or acceptance from peers, even if those behaviours contradict their values. This can create a cycle of seeking validation through negative actions (Hu et al., 2023).

The regression analysis was added to check the predictors of juvenile tendencies. So, it was also hypothesized that impulsivity and aggression would be positive predictors of juvenile delinquency, which is also proved by previous literature. The present study's findings are consistent with previous literature, as suggested by Abdullah (2015), that higher levels of impulsivity and aggression are associated with an increased likelihood of engaging in delinquent behaviours among juveniles. Similarly, one study also explained. This lack of consideration for consequences might drive them to engage in risky or illegal activities, contributing to delinquency.

Similarly, aggression can escalate conflicts and increase the likelihood of engaging in aggressive or violent behaviours. The present findings showed that aggression positively predicts juvenile delinquent tendencies. A significant association exists between delinquent and aggressive behaviour (Jara, 2017).

Our third hypothesis is also supported by current research findings and also supported by previous literature. It was hypothesized that self-esteem would moderate the relationship between impulsivity and aggression in juvenile behaviour. Current research results revealed that self-esteem non-significantly moderates the relationship between impulsivity and juvenile behaviours. In contrast, self-esteem moderates the relationship between aggression and juvenile behaviour. In another way, the relationship between aggression and juvenile behaviour is positive among late adolescents with low self-esteem. A study also explored that the degree to which aggression leads to juvenile behaviour differs based on an individual's level of self-esteem.

Furthermore, it was also suggested by a study conducted by Gao et al. (2022) that adolescents with low self-esteem might be more vulnerable to the influence of aggression. Aggressive behaviour might exacerbate their negative self-perception, leading them to engage in delinquent behaviours to cope, seek validation, or assert themselves. However, it also found the non-significant moderating role of self-esteem in the relationship between impulsivity and juvenile behaviours among late adolescents.

CONCLUSION

The current study aimed to determine the factors that predict juvenile tendencies in late teens. It also looked at the moderating effects of self-esteem on both impulsivity and juvenile delinquency, as well as aggression and delinquency. The study found that aggression and impulsivity were good predictors of juvenile inclinations. The findings revealed a strong positive association between impulsivity and aggression. The findings indicate that while self-esteem does not regulate the association between impulsivity and delinquency, it does affect the relationship between juvenile delinquency and violence. The present study additionally included demographic characteristics, such as age, gender, birth order, education, and sectors that are crucial in the prediction of young people's behaviour.

LIMITATIONS AND SUGGESTIONS

Research in every field is handled with care and dedication, increasing the benefits and decreasing the risks. For this purpose, researchers put their journey of attaining goals established for the study. Every study project follows a step-by-step methodology to identify and address issues.



Limitations do not demotivate the researchers but motivate a researcher to explore more possible substitutes and stimulate the researcher to make additional investigations.

The study's first drawback is a lack of funding. Financial and literary resources are both insufficient. There is a shortage of research on controlling impulsivity and self-esteem concerning juvenile tendencies. The use of subjective self-report to measure all variables is the following. As a result of people frequently attempting to hide their first response, self-reporting can be problematic.

They try to make a good impression on researchers. So, data should be accumulated from different resources to end the bias in the future study. The generalization of the study is limited by sample composition. The present study sample was obtained only from the Punjab province. Future study samples must be drawn from Pakistan to generalize future research findings.

The results of the current study can be expanded in several ways because it is accessible to new areas of inquiry. Numerous topics that can be investigated in Pakistani research in the future have been raised by the current study. By analyzing numerous sources of information rather than solely relying on self-report measures and bearing in mind the limits of the current research, future researchers can improve the value of their study. The study's generalizability may be improved by drawing a sample from the entire country of Pakistan. Future researchers have been advised not to investigate overlapping constructs that might taint the study's findings.

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