



## A Comparative Study of Irritability among the adolescents of Kashmir

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### Abstract

*Irritability has been described as a personality trait that is characterized by a tendency to be angry and reactive to the slightest provocation and disagreement. The present paper tries to explore the level of irritability among the adolescents. Sample of 100 (n = 100) including both boys and girls was selected by using convenient sampling. Born-Steiner irritability: Self rating scale was used for data collection. The results revealed no significant difference between boys and girls on irritability, it also showed that there is no difference between rural and urban adolescents on irritability. The results also revealed that there is a significant difference between rural and urban adolescent boys on irritability ( $t=4.25, p<0.01$ ), while urban and rural adolescent girls shows no difference on irritability.*

**Keywords: - Adolescents, Irritability, Provocation, Disagreement.**

### **Introduction**

Irritability has been defined as a susceptibility to anger, annoyance or impatience.<sup>1</sup> Irritability is featured by a state of physical and psychological tension that may unexpectedly and rapidly rises and includes reduced control over temper, a keen or extreme sensitivity to external stimuli and irascible verbal or behavioural explosion — even unstable aggressiveness. In the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)* and in the literature of the past 5 decades, irritability is a connected feature of, or principle for, other mental conditions.

Irritability is often been described as a personality trait. Irritability is a personality dimension which is characterized by a predisposition to be angry and reactive to slight provocations and disagreements.<sup>2</sup> This is different from anger, which is an emotional state, and responsive aggression, which in other words is a behavior. The concept of irritability became effectual in 1957 in a chain of research studies validating an omnibus assessment of aggression, the Buss–Durkee Hostility Inventory.<sup>3</sup> The validation of the irritable trait and the construction of an irritability inventory resulted from a

<sup>1</sup> Irritability. *The Oxford English Dictionary*. 2nd ed. Oxford: Oxford University Press; 1989:102.

<sup>2</sup> Caprara GV, Cinanni V, D'Imperio G, Passerini S, Renzi P, Travaglia G. Indicators of impulsive aggression: Present status of research on irritability and emotional susceptibility scales. *Personality and Individual Differences*. 1985; 6:665–674.

<sup>3</sup> Buss AH, Durkee A. An inventory for assessing different kinds of hostility. *Journal of Consulting Psychology*. 1957; 21:343–349.

principal factor analysis of over thousand participants reply to the Inventory of Buss–Durkee Hostility.<sup>4</sup> Since then, “irritable mood” was included in Index Medicus to clarify the meaning of irritability for scientific/medical investigation,<sup>5</sup> and number of irritability scales/questionnaires were formed and validated. These questionnaires/scales lay emphasis on affect of anger, speedy anger initiation, inability of a person to control anger, and elevated reactive aggression. Irritability transpires in children and adolescents usually 3% of the general population.<sup>6</sup> Despite its commonness, the clinical literature in impairing irritability is fairly partial. This inadequate data has undesirable clinical effects, illustrated by the debate about if children with chronic, severe irritability and hyper arousal are exhibiting a developmental presentation of bipolar disorder and should be treated as such.<sup>7</sup>

Specifically, some investigators claim that youths with severe irritability, without distinct manic episodes, are exhibiting a developmental presentation of bipolar disorder, although data suggest that severe, non-episodic irritability dissimilar from typical bipolar disorder in longitudinal course, as well as physiopathology and family history.<sup>8</sup> In any case, the controversy regarding pediatric bipolar disorder shines a bright light on the fact that there are many gaps in our knowledge about the presentation, course, and pathophysiology of severe irritability in youth.

Most definitions of irritability has been characterized as extreme reactivity to negative emotional stimuli and describe it as having an affective component, anger, and a behavioral component, aggression which means, irritable people are excessively angry or aggressive in response to provocative stimulus.<sup>9</sup>

Spielberger, the developer of one of the most significant measuring anger, suggested that anger can be defined “as a psychobiological state or condition consisting of subjective feelings that vary in intensity, from mild irritation or annoyance to intense fury and rage, with affiliated activation or arousal of the autonomic nervous system”.<sup>10</sup>

Two features of anger are particularly applicable to irritability. First, anger is an emotion with a negative valence; that is, most people find it unpleasant.<sup>11</sup> Second, anger can be distinguished from other

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<sup>4</sup> Caprara GV, Cinanni V, D'Imperio G, Passerini S, Renzi P, Travaglia G. Indicators of impulsive aggression: Present status of research on irritability and emotional susceptibility scales. *Personality and Individual Differences*. 1985; 6:665–674.

<sup>5</sup> Snaith RP, Taylor CM. Irritability: Definition, assessment and associated factors. *British Journal of Psychiatry*. 1985; 147:127–136.

<sup>6</sup> Althoff RR, Verhulst FC, Rettew DC, Hudziak JJ, van der Ende J. Adult outcomes of childhood dysregulation: A 14-year follow-up study. *Journal of the American Academy of Child & Adolescent Psychiatry*. 2010; 49:1105–1116

<sup>7</sup> American Academy of Child & Adolescent Psychiatry Practice parameter for the assessment and treatment of children and adolescents with bipolar disorder. *Journal of the American Academy of Child & Adolescent Psychiatry*. 2007; 46:107–125.

<sup>8</sup> Leibenluft E. Severe mood dysregulation, irritability, and the diagnostic boundaries of bipolar disorder in youths. *American Journal of Psychiatry*. 2011; 168:129–142.

<sup>9</sup> Caprara GV, Cinanni V, D'Imperio G, Passerini S, Renzi P, Travaglia G. Indicators of impulsive aggression: Present status of research on irritability and emotional susceptibility scales. *Personality and Individual Differences*. 1985; 6:665–674.

<sup>10</sup> Spielberger CD, Reheiser EC, Sydeman SJ. Measuring the experience, expression, and control of anger. *Issues in Comprehensive Pediatric Nursing*. 1995; 18:207–232.

<sup>11</sup> Watson D, Tellegen A. Toward a consensual structure of mood. *Psychological Bulletin*. 1985; 98:219–235.

negative emotions (i.e., from sadness and fear) by its relationship to motivation reviewed by (Carver & Harmon-Jones<sup>12</sup> & Panksepp,<sup>13</sup> for a review of converging ethological evidence). From a perspective of motivation, emotions are often divided according to whether they are associated with “approach” or “avoid” behavior. Simply put, if one cannot get what he/she wants, he/she may become angry and try harder to achieve her goal (approach), or she may become sad and give up (failure to approach). In contrast, fear is a negative-valence emotion that is associated with threats that are to be avoided. In this formulation, the adaptive function of anger is that its presence is associated with increased effort toward goals that are difficult to achieve(<sup>14</sup> &<sup>15</sup>).

## Review of Literature

In one of the study by (Coccaro et al. 1997)<sup>16</sup>, found that 30 to 40% individuals with irritability has hereditary factor this is similar for anxiety and depression.<sup>17</sup> Recent studies have found that genetic influence on irritability changes over the period of time. It was also found that both boys and girls differ on irritability.<sup>18</sup> The study concluded that boys shows growing heritability from early childhood through young adulthood while it’s completely opposite in girls who shows declining heritability.<sup>19,20</sup> (Savage et al. 2015, Stringaris et al. 2012b) suggests that there is a phenotypic relationship between early on irritability and later depression both have genetic component involved. Study conducted by (Humphreys et al. 2018)<sup>21</sup> found that irritability is related with both externalizing and internalizing symptoms in both boys and girls in early adolescence and that irritability is related with internalizing symptoms more strongly in girls than in boys.

(Krieger et al. 2013)<sup>22</sup> found that children with family history of depression scored high on irritability dimension of oppositional defiant disorder (ODD). Wiggins et al. (2014)<sup>23</sup> found there is a

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<sup>12</sup>Carver CS, Harmon-Jones E. Anger is an approach-related affect: Evidence and implications. *Psychological Bulletin*. 2009; 135:183–204

<sup>13</sup>Panksepp J. Emotional endophenotypes in evolutionary psychiatry. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*. 2006; 30:774–784.

<sup>14</sup>Lewis M, Alessandri SM, Sullivan MW. Violation of expectancy, loss of control, and anger expressions in young infants. *Developmental Psychology*. 1990; 26:745–751.

<sup>15</sup>Weiner B, Graham S, Stern P, Lawson ME. Using affective cues to infer causal thoughts. *Developmental Psychology*. 1982; 18:278–286.

<sup>16</sup>Coccaro EF, Bergeman CS, Kavoussi RJ, Seroczynski AD. 1997. Heritability of aggression and irritability: a twin study of the Buss-Durkee aggression scales in adult male subjects. *Biological Psychiatry* 41:273–84.

<sup>17</sup>Eley TC. 1999. Behavioral genetics as a tool for developmental psychology: anxiety and depression in children and adolescents. *Clin. Child Fam. Psychol. Rev.* 2:21–36

<sup>18</sup>Roberson-Nay R, Leibenluft E, Brotman MA, Myers J, Larsson H, et al. 2015. Longitudinal stability of genetic and environmental influences on irritability: from childhood to young adulthood. *Am. J. Psychiatry* 172:657–64

<sup>19</sup>Savage J, Verhulst B, Copeland W, Althoff RR, Lichtenstein P, Roberson-Nay R. 2015. A genetically informed study of the longitudinal relation between irritability and anxious/depressed symptoms. *J. Am. Acad. Child Adolesc. Psychiatry* 54:377–84

<sup>20</sup>Stringaris A, Zavos H, Leibenluft E, Maughan B, Eley TC. 2012b. Adolescent irritability: phenotypic associations and genetic links with depressed mood. *Am. J. Psychiatry* 169:47–54.

<sup>21</sup>Humphreys, K. L., Schouboe, S. N. F., Kircanski, K., Leibenluft, E., Stringaris, A., & Gotlib, I. H. (2018). Irritability, Externalizing, and Internalizing Psychopathology in Adolescence: Cross-Sectional and Longitudinal Associations and Moderation by Sex. *Journal of Clinical Child & Adolescent Psychology*, 1–9.

<sup>22</sup>Krieger FV, Polanczyk VG, Goodman R, Rohde LA, Graeff-Martins AS, et al. 2013. Dimensions of oppositionality in a Brazilian community sample: testing the DSM-5 proposal and etiological links. *J. Am. Acad. Child Adolesc. Psychiatry* 52:389–400.

correlation between maternal depression and offspring irritability and offspring irritability predicts maternal depression. (Althoff et al. 2010, Brotman et al. 2006, Copeland et al. 2014, and Whelan et al. 2013)<sup>24</sup> found that youth with irritability predicts anxiety and depression in adulthood. In one of the study by Brotman and colleagues (2006),<sup>25</sup> found that children with severe mood dysregulation (SMD) predict depression in adulthood more strongly than depression itself during childhood.<sup>26</sup> Some epidemiological studies on pre-school children and youths have reported that there is a correlation between early irritability and later anxiety and depression.<sup>27</sup> One of the studies by (Fava et al. 2010), found that irritability is an important symptom of depression and represents a severe mark of illness as well.<sup>28</sup> Both cross sectional and longitudinal studies found that there is strong correlation between the irritability, depression and anxiety.<sup>29</sup>

For majority of youths, irritability maintains a steady way through adolescence, with high levels of predicting aggression, anxiety, and depression in young adulthood.<sup>30</sup> Caparara et al, (2007) found that irritability was steady for the majority of youths. Only 23% of sample who had moderate levels of irritability showed decline throughout adolescence. Comparatively more girls than boys (34.9% vs. 28.1%) had stably high levels of irritability, which was related with self-reported physical aggression, verbal aggression, and violence.

Review of literature suggests that irritability has been studied mostly in clinical population. There has been no attempt to study irritability with normal population and that too in adolescents.

### **Objectives:-**

- To study the significance of difference between the adolescent boys and girls on irritability.
- To study the significance of differences between Rural and urban adolescents on irritability.

### **Hypothesis:-**

- There will be significant difference among adolescent boys and girls on irritability.
- There will be significant difference between rural and urban adolescents on irritability.

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<sup>23</sup> Wiggins JL, Mitchell C, Stringaris A, Leibenluft E. 2014. Developmental trajectories of irritability and bidirectional associations with maternal depression. *J. Am. Acad. Child Adolesc. Psychiatry* 53:1191–205.

<sup>24</sup> Copeland WE, Shanahan L, Egger H, Angold A, Costello EJ. 2014. Adult diagnostic and functional outcomes of DSM-5 disruptive mood dysregulation disorder. *Am. J. Psychiatry* 171:668–74

<sup>25</sup> Whelan YM, Stringaris A, Maughan B, Barker ED. 2013. Developmental continuity of oppositional defiant disorder subdimensions at ages 8, 10, and 13 years and their distinct psychiatric outcomes at age 16 years. *J. Am. Acad. Child Adolesc. Psychiatry* 52:961–69.

<sup>26</sup> Dougherty LR, Smith VC, Bufferd SJ, Carlson GA, Stringaris A, et al. 2014. DSM-5 disruptive mood dysregulation disorder: correlates and predictors in young children. *Psychol. Med.* 44:2339–50

<sup>27</sup> Dougherty LR, Smith VC, Bufferd SJ, Kessel EM, Carlson GA, Klein DN. 2016. Disruptive mood dysregulation disorder at the age of 6 years and clinical and functional outcomes 3 years later. *Psychol. Med.* 46:1103–14

<sup>28</sup> Dougherty LR, Smith VC, Bufferd SJ, Stringaris A, Leibenluft E, et al. 2013. Preschool irritability: longitudinal associations with psychiatric disorders at age 6 and parental psychopathology. *J. Am. Acad. Child Adolesc. Psychiatry* 52:1304–13

<sup>29</sup> Fava M, Hwang I, Rush AJ, Sampson N, Walters EE, Kessler RC. 2010. The importance of irritability as a symptom of major depressive disorder: results from the National Comorbidity Survey Replication. *Mol. Psychiatry* 15:856–67

<sup>30</sup> Caprara GV, Paciello M, Gerbino M, Cugini C. Individual differences conducive to aggression and violence: Trajectories and correlates of irritability and hostile rumination through adolescence. *Aggressive Behavior*. 2007; 33:359–374.

## Material and Method

### Aim

The aim of the paper is to study the level of irritability among the adolescent boys and girls of rural and urban population of Kashmir.

### Sampling

The sample of 100 (n=100) was collected from different schools of Srinagar (Urban) and Charare-Sharief (Rural) by using incidental sampling technique. The sample consists of both boys and girls.

### Questionnaire used

Born-Steiner irritability: Self rating scale was used to collect the data. The scale was particularly developed to assess the irritability among the female population with mood disturbances. The 14-item Self-Rating Scale and the 5-item Observer Rating Scale showed evidence for internal consistency (Self-Rating:  $n = 36$  patients, Cronbach's  $\alpha = 0.9257$ , mean inter item correlation = 0.4690; Observer Rating: Cronbach's  $\alpha = 0.7418$ , mean inter item correlation = 0.3616), Self-Rating test-retest reliability ( $n = 29$  patients,  $r_s = 0.704$ ,  $p = 0.01$ ) and inter rater reliability ( $n = 20$  patients;  $\tau_b = 1.000$ ,  $p = 0.001$ ).

### Results and analysis

Table (1) Showing Mean, S.D and t value of Rural and Urban adolescents on Irritability

Category	Mean	S.D	T-Value	P Value
Rural adolescents	21	7.8	1.56	Insignificant
Urban adolescents	19	5.6		

\*\* Significant at  $p < 0.01$

\* Significant at  $p < 0.05$

The table (1) shows no significant difference on irritability between adolescents of rural and urban population at both levels of significance. It shows that adolescents from rural or urban areas do not differ on irritability.

Table (2) Showing Mean, S.D and t value of Adolescent Boys and Girls on Irritability

Category	Mean	S.D	T-Value	P Value
Boys	21	7.17	1.90	Insignificant
Girls	19	5.5		

\*\* Significant at  $p < 0.01$

\* Significant at  $p < 0.05$

The table (2) shows no significant difference on irritability between adolescent boys and girls at both levels of significance. It also shows that both adolescent boys and girls do not differ on gender. The results were contradictory with the findings of (18), who found that male and female differ significantly on irritability.

Table (3) Showing Mean, S.D and t value of Urban and Rural Adolescent boys on Irritability  
 \*\* Significant at  $p < 0.01$

Category	Mean	S.D	T-Value	P Value
Urban boys	17	4.4	4.25**	Significant
Rural boys	23	10.16		

\* Significant at  $p < 0.05$

The table (3) shows that there is significant difference between rural and urban adolescent boys on irritability at both levels of significance ( $t = 4.25, p < 0.01$ ). It also shows that irritability rural adolescent boys are more irritable than rural adolescent boys. There was no comparative study on irritability based on rural and urban population.

Table (4) Showing Mean, S.D and t value of Rural Urban Adolescent Girls on Irritability

Category	Mean	S.D	T-Value	P Value
Rural girls	19.36	6.6	0.09	Insignificant
Urban girls	19.16	7.3		

\*\* Significant at  $p < 0.01$

\* Significant at  $p < 0.05$

Table (4) shows that there is no significant difference between rural and urban adolescent girls on irritability at both levels of significance. The result also shows that there is no difference in rural and urban adolescent girls on irritability.

## Discussion

The research paper tries to explore the level of irritability among adolescents of rural and urban population. As the author himself belongs to Kashmir, so it was convenient for him to get the data from the Kashmir. The present paper explores the level of irritability among the adolescents on gender i.e. Male & female basis. The results revealed that there is no significant difference between boys and girls on irritability. The results were contradictory by the study by who revealed that both boys and girls differ on irritability. Humphreys et al. 2018 found that irritability is related with both externalizing and

internalizing symptoms in both boys and girls in early adolescence and that irritability is related with internalizing symptoms more strongly in girls than in boys. The results also revealed that adolescent do not differ significantly as far the location of area is concerned. Both rural and urban adolescent population shows no difference on irritability.

The results revealed that urban adolescent boys and rural adolescent boys show significant difference on irritability. It means there is significant difference between rural and urban adolescent boys on irritability. Rural adolescent boys are more irritable than urban adolescent boys. The difference may be due to the living styles of rural and urban ways. Or it may also be said that the way the rearing and caring or the way the rural population develops their children is different from the urban population. The rural way of living is completely different than urban ways. It can be said that this difference can be the reason of difference between irritability among the boys of rural and urban population. But this difference was not found among girls. The results revealed that there is no significant difference between urban and rural girls on irritability. The research was conducted in Kashmir, one of the parts of Jammu & Kashmir, state of India. The state of Jammu & Kashmir has been in turmoil from the last two decades. The conflict has changed the way of life. There have been regular strikes, Injuries and deaths in this part of Jammu and Kashmir. This conflict and turmoil may be the cause of the different results of this study, because of the different life style which the people have to adapt under such situations may be the reason for contradicting results of the present paper.

There was very little amount of research done on irritability among non clinical population. At the same time very few researches was done on irritability among the adolescents. So the present paper is a simple effort to give a simple picture about the irritability among the adolescent population of Kashmir.

The overall results indicated that there is a no significant difference on irritability among adolescent boys and girls, and there is no significant difference between rural and urban adolescent on irritability, but the results revealed that rural adolescent boys and urban adolescent boys differ significantly on irritability.

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