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A study on aggression among adolescent in rural and urban area

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Abstract
Aggression is behaviour, verbal or physical intended to physically hurt or harm in some other way – slaps, direct insult, even gossipy digs, the consistent finding that these mainly involve adolescent. Whether aggression is manifested by individual or groups (including nations), it is the most destructive behaviour in social relations and consequently an important issue. The present study was design to know about the aggression level among adolescent boys and girls of urban and rural area. The sample was selected from urban and rural area. The study had conducted on 200 adolescent from which 100 subjects from urban area and 100 subjects from rural area. It was found that the mean score of adolescent males is significantly higher than that of females on the variable of aggression, it may be further concluded that adolescent males are more aggressive than their female counterparts and the aggression of rural and urban adolescents. As the mean score of rural adolescents is significantly higher than that of urban adolescents on the variable of aggression.

Keywords: Aggression, affective aggression, instrumental aggression, proactive and reactive aggression

1. Introduction
Aggression is behaviour, verbal or physical intended to physically hurt or harm in some other way – slaps, direct insult, even gossipy digs. Whether aggression is manifested by individual or groups (including nations), it is the most destructive behaviour in social relations and consequently an important issue [7]. Aggression is a complex subject, not least because what one person sees as an acceptable form of expressing anger or frustration may be seen by other as a violent act. Display of aggression has now become a crucial concern and certainly deserves careful attention of both layman and social psychologist, as people who suffer and are victimized may loose their right path and may detract themselves from mental and physical effectiveness [1].
A number of substantial researches have been conducted to understand the nature and nurture of aggression among adolescents that stems from a wide varieties of social, situational and personal factors.

- Maccoby & Jacklin (1974) [9] studied that observational techniques are more likely to distinguish the more obvious physical types of aggression and that males are typically more physically aggressive than females [9]
- Eagly and Steffen (1986) [3] found gender differences in aggression to be less straightforward, concluding that differences were more qualitative than quantitative [3].

1.1 Affective Aggression
Aggression is often accompanied by strong negative emotional states. The emotion that we call anger is usually aroused by some provocation. Anger is most often thought of as on intervening condition that instigates and then guides, affective aggressive behaviour aimed primarily at injuring the provoking person. It is accompanied by distinctive patterns of activity in the central and autonomic nervous systems, including activation of the hypothalamus, increased blood flow to the musculature, heightened blood pressure and pulse rate, papillary dilation and decreased flow of blood to the viscera [6].
The idea that a flash of anger can inspire retaliatory aggression is easy enough to grasp. Sometime, however, retaliation comes so long after provocation that we find it difficult to attribute the action to anger an emotion that is relatively short lived for most people, even though the retaliatory aspect of the anger is still apparent. The possible emotional state involved in this sort of 'delayed response' affective aggression. It has many of the properties of anger: it is a state of impulse, it disposes the person to action, it is often accompanied by bodily arousal, it can become a pre-occupation that takes attention away from other matters. But it differs from anger in other ways, one of which is the often extended duration between provocation and response. This condition is not an emotion, per se, but a complex cognitive state having close links to emotion that has grown out some purer emotional state. Such a state may be labeled a 'sentiment': the emotion of anger towards the other person becomes in time transformed into the sentiment of hatred, which outlives the original anger. Long-term feuds and grudges represent cases in which people are aggressed against because they are hated, not because they have done anything in particularly to elicit anger in the aggressor. This is an important and usually overlooked dimension to the analysis of affective aggression and indicate that future study of motives for retaliation is in order.

1.2 Instrumental Aggression
Behaviour need not have a strong emotional basis to be aggressive, however. People often attack others with intent to harm but without necessarily feeling any malice towards

them, the aggression is simply a means to some other end. One such end is self-defense, which most courts of law recognize as a valid justification for acts of violence. Aggressive military action is usually carried out for control of territory or to dissuade the enemy from attacking one's own troops. Another type of instrumental aggression is the attempt to establish coercive power over others through violence or the threat of violence, finally in one of the most widely cited research studies in recent times, people were capable of committing acts of violence against other human beings simply in obedience to commands from a person with authority [10]. It must be noted that the distinction between affective and instrumental aggression is not a rigorous one. The two kinds of aggression are not mutually exclusive, and some acts of aggression have both affective and instrumental properties. For example, a mother who becomes exasperated at her child's behaviour and used corporal punishment may be motivated to modify the child's behaviour (an instrument use of aggression) while still reacting to that behaviour with anger [8]. For purposes of understanding her behaviour, one must determine which of the two categories describes her principle motivational state and analyze the relevant variables accordingly.

1.3 Proactive and Reactive Aggression

A number of recent studies of aggression draw a distinction between reactive and proactive aggression. The first of these terms refers to aggressive behaviour that is enacted in response to provocation, such as an attack or an insult, and it is manifested in both self-defensive and angry actions. The latter term refers to aggression that is initiated without apparent provocation, such as we see in bullying behaviour. Such behaviour is not evoked by anger, hostility or the need to defend oneself, but by the other motives that relate to obtaining goods, asserting power, assuring the approval of reference groups and other such goals. Reactive and proactive aggression are the equivalent of what earlier theorists called affective and instrumental aggression. The affective instrumental (or reactive – proactive) differentiation will come in certain specific contexts in this book, and the reader should bear in mind the differences between the two kinds of aggression. The remainder of this book is devoted primarily to a discussion of the process involved in affective aggression. This emphasis is no way intended to imply that same depth as has affective aggression. There is for example, no large body of literature analyzing the variable involved when one person hurts another for money, nor do we have extensive data from controlled studies on the mediators of self-defense. Some studies have begun to inquire into the antecedents of each type of aggression and they will be cited. On the other hand, we have a great deal of information on affective aggression and the processes that contribute to it.

2. Material and Method

In the present study sampling is done by using probability sampling method. The research investigation will be carried out on 200 adolescents. The sample will be selected from Ludhiana and Village Bachan Singh Nagar area. The sample will be classified into two categories 100 urban (50 boys & 50 girls) and 100 rural adolescents (50 boys & 50 girls)

Showing distribution of sample

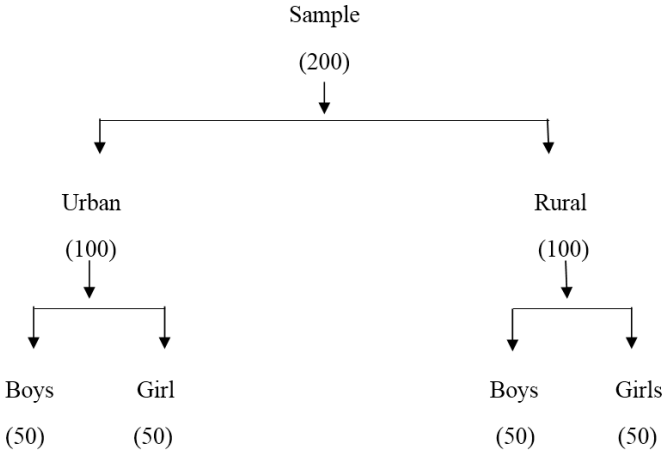

Fig 1

2.1 Tool Employed

Following tool will be used to assess the aggression level:
-AG scale by Rajeev Lachan Bhardwaj

1. Scoring

The scoring of aggression scale is very easy and of quantitative nature. The scale can be scored easily with reference to the scores obtained for each item separately. Each item has five alternative answers and subject has only to put a right (√) mark at any one out of the five alternative. Scoring of these five alternatives follows a system of 5, 4, 3, 2, 1 from upper to lower end. The addition of all the scores obtained on each item would be the total of aggression score of the subject.

2. Norms

For easy and meaningful interpretation of the obtained aggression score, norms have been calculated in the form of percentile ranks on a sample 2020 people. The prepared norms can be classified into three categories as under

2.2 Statistical Techniques Used

Statistics is a science which deals with collection, classification and measured evaluation of facts as a basic information. It also helps to draw a valid information from data and to make a prediction classified in terms of charts and tables. The following statistical techniques were used for analyzing the data.

1. Descriptive statistics like mean, median, standard deviation, skewness, kurtosis were used to check the normality of the data.
2. 2 x 2 analysis of variance is used to see the relation between gender and locale.
3. For findings significant difference between means, t – ratio was employed.
4. Data was graphically represented in the form of frequency polygon and bar graphs wherever and whenever required.

3. Results

The description of scores are presented in measures of mean,

median, standard deviation, skewness and kurtosis in the tables 1 to 4.18 and figures 2 to 10.

Table 1: Frequency Distribution of scores of Adolescents on the variable of Aggression (N = 200)

Scores	Frequency
40-50	3
50-60	12
60-70	42
70-80	76
80-90	37
90-100	29
100-110	1
Total	200

Table 2: showing Mean, Median, Standard Deviation, Skewness and Kurtosis of scores of Adolescents on the variable of Aggression (N = 200)

Group	Mean	Median	S.D.	Skewness	Kurtosis
Adolescents	77.95	80.00	12.00	-.422	-.030

Aggression among adolescents was tested for normalcy. Table 2 shows that

The values of mean and median of the scores of aggression of adolescents as 77.95 and 80.00 respectively which are quite proximate to each other. The values of skewness and kurtosis in case of total population are -0.422 and -0.030 respectively showing the distribution as negatively skewed and platykurtic. But these distortions are quite small. Therefore the distributions can be taken as normal which is evident from fig. 2

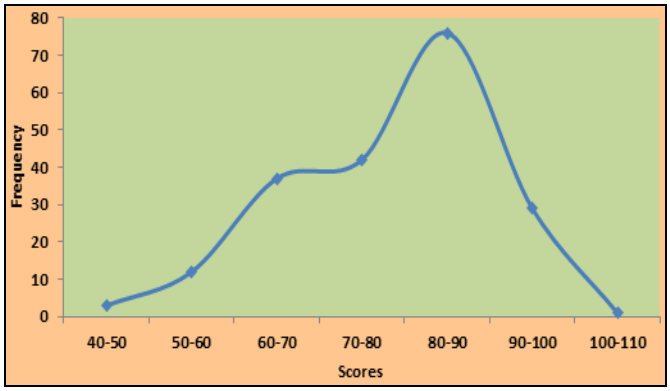

Fig 2: Smoothed Frequency Polygon of scores of Adolescents on the variable of Aggression (N = 200)

Table 3: Frequency Distribution of scores of Urban and Rural Adolescent Males on the variable of Aggression (N = 100)

Scores	Frequency
40-50	2
50-60	2
60-70	15
70-80	38
80-90	23
90-100	19
100-110	1
Total	100

Table 4: showing Mean, Median, Standard Deviation, Skewness and Kurtosis of scores of Urban and Rural Adolescent Males on the variable of Aggression (N = 100)

Group	Mean	Median	S.D.	Skewness	Kurtosis
Male	80.55	82.00	12.11	-.715	0.135

Table 4 shows that

The values of mean and median of the scores of aggression among adolescent males as 80.55 and 82.00 respectively which are quite proximate to each other. The values of skewness and kurtosis in case of males are -0.715 and 0.135 respectively showing the distribution as negatively skewed and leptokurtic. But these distortions are quite small. Therefore the distributions can be taken as normal which is evident from fig. 3

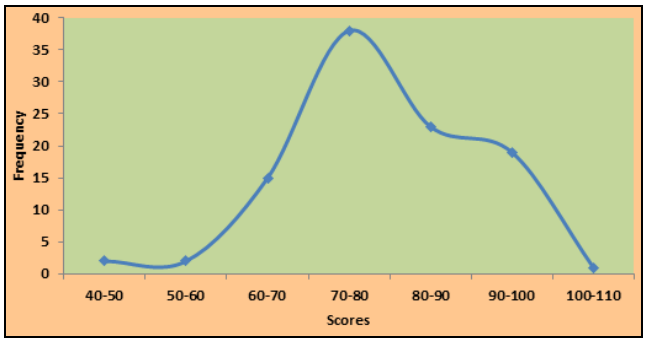

Fig 3: Smoothed Frequency Polygon of scores of Urban and Rural Adolescent Males on the variable of Aggression (N = 100)

Table 5: Frequency Distribution of scores of Urban and Rural Adolescent Females on the variable of Aggression (N = 100)

Scores	Frequency
40-50	1
50-60	10
60-70	27
70-80	38
80-90	14
90-100	10
100-110	0
Total	100

Table 6: showing Mean, Median, Standard Deviation, Skewness and Kurtosis of scores of Urban and Rural Adolescent Females on the variable of Aggression (N = 100)

Group	Mean	Median	S.D.	Skewness	Kurtosis
Female	75.34	78.00	11.35	-0.240	-0.903

Table 6 shows that

The values of mean and median of the scores of aggression among adolescent females as 75.34 and 78.00 respectively which are quite proximate to each other. The values of skewness and kurtosis in case of females are -0.240 and -0.903 respectively showing the distribution as negatively skewed and platykurtic. But these distortions are quite small. Therefore the distributions can be taken as normal which is evident from fig. 4

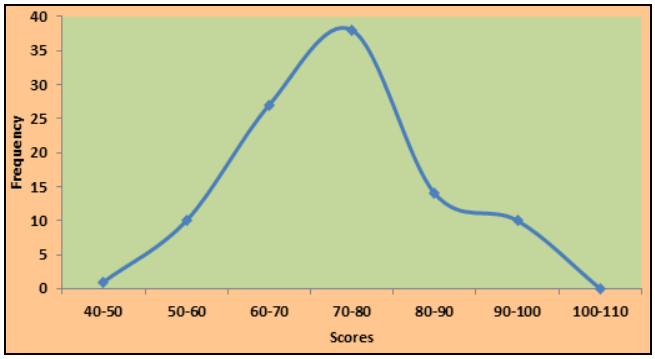

Fig 4: Smoothed Frequency Polygon of scores of Urban and Rural Adolescent Female on the variable of Aggression (N = 100)

Table 7: Frequency Distribution of scores of Male and Female Rural Adolescents on the variable of Aggression (N = 100)

Scores	Frequency
40-50	0
50-60	6
60-70	18
70-80	48
80-90	16
90-100	12
100-110	0
Total	100

Table 8: showing Mean, Median, Standard Deviation, Skewness and Kurtosis of scores of Male and Female Rural Adolescents on the variable of Aggression (N = 100)

Group	Mean	Median	S.D.	Skewness	Kurtosis
Rural Adolescents	81.64	84.00	11.15	-0.682	-0.210

Table 8 shows that

The values of mean and median of the scores of aggression among rural adolescents as 81.64 and 78.00 respectively which are quite proximate to each other. The values of skewness and kurtosis in case of rural adolescents are -0.682 and -0.210 respectively showing the distribution as negatively skewed and platykurtic. But these distortions are quite small. Therefore the distributions can be taken as normal which is evident from fig. 5

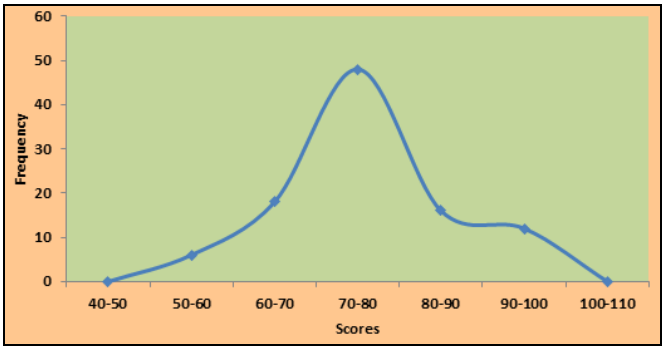

Fig 5: Smoothed Frequency Polygon of scores of Male and Female Rural Adolescents on the variable of Aggression (N = 100)

Table 9: Frequency Distribution of scores of Male and Female Urban Adolescents on the variable of Aggression (N = 100)

Scores	Frequency
40-50	3
50-60	6
60-70	24
70-80	28
80-90	21
90-100	17
100-110	1
Total	100

Table 10: showing Mean, Median, Standard Deviation, Skewness and Kurtosis of scores of Male and Female Urban Adolescents on the variable of Aggression (N = 100)

Group	Mean	Median	S.D.	Skewness	Kurtosis
Urban Adolescents	74.25	74.50	11.72	-0.240	0.632

Table 10 shows that

The values of mean and median of the scores of aggression among urban adolescents as 74.25 and 74.50 respectively which are quite proximate to each other. The values of skewness and kurtosis in case of urban adolescents are -0.240 and 0.632 respectively showing the distribution as negatively skewed and leptokurtic. But these distortions are quite small. Therefore the distributions can be taken as normal which is evident from fig. 6

Fig 6: Smoothed Frequency Polygon of scores of Male and Female Urban Adolescents on the variable of Aggression (N = 100)

Table 11: Frequency Distribution of scores of Urban Male Adolescents on the variable of Aggression (N = 50)

Scores	Frequency
40-50	2
50-60	2
60-70	9
70-80	17
80-90	10
90-100	9
100-110	1
Total	50

Table 12: showing Mean, Median, Standard Deviation, Skewness and Kurtosis of scores of Urban Male Adolescents on the variable of Aggression (N = 50)

Group	Mean	Median	S.D.	Skewness	Kurtosis
Urban Male Adolescents	75.94	76.00	12.80	-0.491	0.405

Table 12 shows that
The values of mean and median of the scores of aggression among urban male adolescents as 75.94 and 76.00 respectively which are quite proximate to each other. The values of skewness and kurtosis in case of urban male adolescents are -0.491 and 0.405 respectively showing the distribution as negatively skewed and leptokurtic. But these distortions are quite small. Therefore the distributions can be taken as normal which is evident from fig. 7

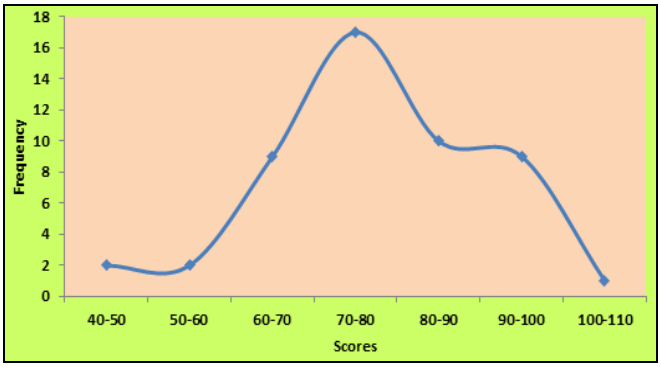

Fig 7: Smoothed Frequency Polygon of scores of Urban Male Adolescents on the variable of Aggression (N = 50)

Table 13: Frequency Distribution of scores of Urban Female Adolescents on the variable of Aggression (N = 50)

Scores	Frequency
40-50	1
50-60	4
60-70	15
70-80	11
80-90	11
90-100	8
100-110	0
Total	50

Table 14: showing Mean, Median, Standard Deviation, Skewness and Kurtosis of scores of Urban Female Adolescents on the variable of Aggression (N = 50)

Group	Mean	Median	S.D.	Skewness	Kurtosis
Urban Female Adolescents	72.56	72.00	10.39	-0.056	-0.654

Table 14 shows that
The values of mean and median of the scores of aggression among urban female adolescents as 72.56 and 72.00 respectively which are quite proximate to each other. The values of skewness and kurtosis in case of urban female adolescents are -0.056 and
-0.654 respectively showing the distribution as negatively skewed and platykurtic. But these distortions are quite small. Therefore the distributions can be taken as normal which is evident from fig. 8

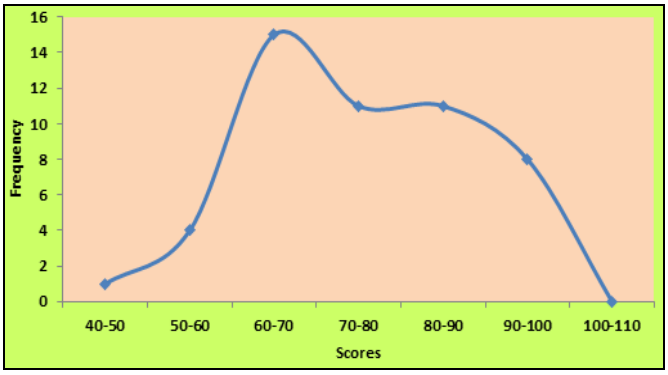

Fig 8: Smoothed Frequency Polygon of scores of Urban Female Adolescents on the variable of Aggression (N = 50)

Table 15: Frequency Distribution of scores of Rural Male Adolescents on the variable of Aggression (N = 50)

Scores	Frequency
40-50	0
50-60	0
60-70	6
70-80	24
80-90	10
90-100	10
100-110	0
Total	50

Table 16: showing Mean, Median, Standard Deviation, Skewness and Kurtosis of scores of Rural Male Adolescents on the variable of Aggression (N = 50)

Group	Mean	Median	S.D.	Skewness	Kurtosis
Rural Male Adolescents	85.16	87.00	9.45	-0.615	-0.106

Table 16 shows that
The values of mean and median of the scores of aggression among rural male adolescents as 85.16 and 87.00 respectively which are quite proximate to each other. The values of skewness and kurtosis in case of rural male adolescents are -0.615 and -0.106 respectively showing the distribution as negatively skewed and platykurtic. But these distortions are quite small. Therefore the distributions can be taken as normal which is evident from fig. 9

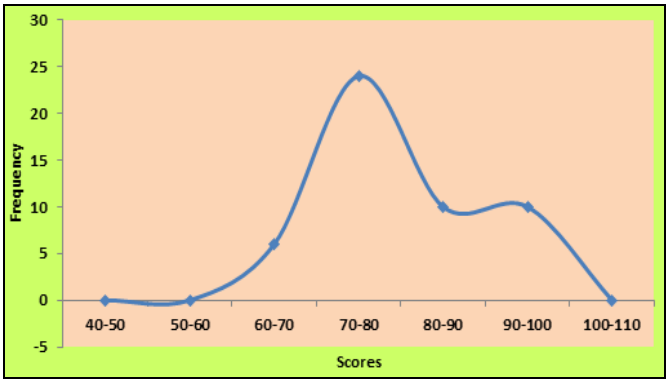

Fig 9: Smoothed Frequency Polygon of scores of Rural Male Adolescents on the variable of Aggression (N = 50)

Table 17: Frequency Distribution of scores of Rural Female Adolescents on the variable of Aggression (N = 50)

Scores	Frequency
40-50	0
50-60	6
60-70	12
70-80	24
80-90	6
90-100	2
100-110	0
Total	50

Table 18: showing Mean, Median, Standard Deviation, Skewness and Kurtosis of scores of Rural Female Adolescents on the variable of Aggression (N = 50)

Group	Mean	Median	S.D.	Skewness	Kurtosis
Rural Female Adolescents	78.12	82.00	11.68	-0.571	-0.736

Table 18 shows that
The values of mean and median of the scores of aggression among rural female adolescents as 78.12 and 82.00 respectively which are quite proximate to each other. The values of skewness and kurtosis in case of rural female adolescents are -0.571 and
-0.736 respectively showing the distribution as negatively skewed and platykurtic. But these distortions are quite small. Therefore the distributions can be taken as normal which is evident from fig. 10

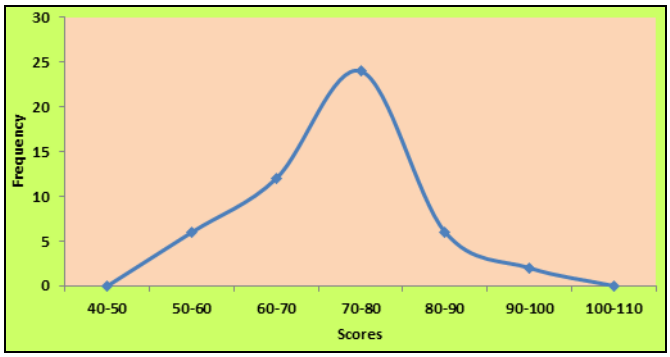

Fig 10: Smoothed Frequency Polygon of scores of Rural Female Adolescents on the variable of Aggression (N = 50)

Section II
Significance of Difference of Means

To investigate the significance of difference between the means, if any, of aggression among adolescents on the bases of gender and locale, t-test was employed.

Table 19: Significance of the Difference between Means of Aggression of Adolescent Males and Females

S.No.	Group	Variable	N	M	S.D	SE_M	t-ratio
1.	Male	Aggression	100	80.55	12.11	1.21	3.14**
	Female		100	75.34	11.35	1.13	

** Significant at .01 level

Table 19 revealed that
the mean scores of aggression of adolescent males and females as 80.55 and 75.34 respectively and their standard deviation as 12.11 and 11.35 respectively. The t-ratio is 3.14 with d_f =198 which is significant at 0.01 level of confidence. This revealed that a significant difference exists between mean scores of aggression of adolescent males and females.
Therefore the hypothesis 1 stating that '*there exist a significant difference in the mean scores of aggression among males and females*' stands accepted.
Further as the mean score of adolescent males is significantly higher than that of females on the variable of aggression, it may be further concluded that adolescent males are more aggressive than their female counterparts.

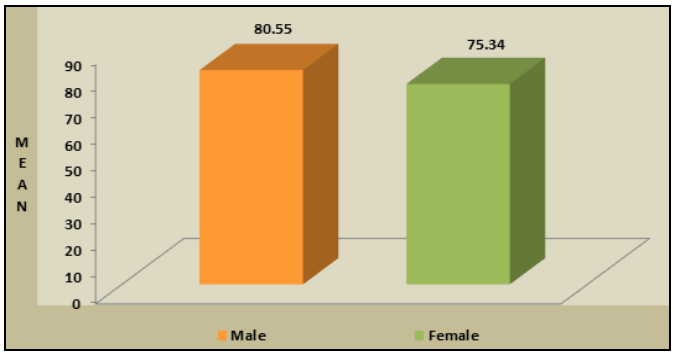

Fig 11: Bar Graph showing Difference between Means of Aggression of Adolescent Males and Females

Table 20: Significance of the Difference between Means of Aggression of Rural and Urban Adolescents

S. No.	Group	Variable	N	M	S.D	SE_M	t-ratio
1.	Rural	Aggression	100	81.64	11.15	1.11	4.57**
	Urban		100	74.25	11.72	1.17	

** Significant at .01 level

Table 20 revealed that
The mean scores of aggression of rural and urban adolescents as 81.64 and 74.25 respectively and their standard deviation as 11.15 and 11.72 respectively. The t-ratio is 4.57 with d_f =198 which is significant at 0.01 level of confidence. This revealed that a significant difference exists between mean scores of aggression of rural and urban adolescents.
Therefore the hypothesis **2** stating that '*there exists a significant difference in the mean scores of aggression among rural and urban adolescents*' stands accepted.
Further as the mean score of rural adolescents is significantly higher than that of urban adolescents on the variable of aggression, it may be further concluded that rural adolescents are more aggressive than their urban counterparts.

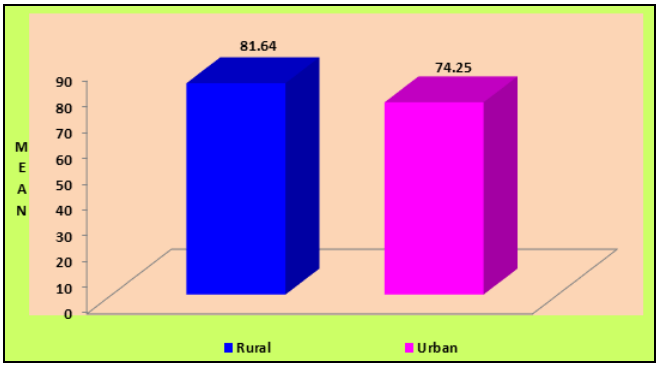

Fig 12: Bar Graph showing Difference between Means of Aggression of Rural and Urban Adolescents

Table 21: Summary of 2X2 Analysis of Variance on Aggression among Adolescents in relation to Gender and Locale

Source of Variation	SS	d_f	MS	F-Value
Gender(A)	1357.21	1	1357.21	10.91**
Locale (B)	2730.61	1	2730.61	21.95**
Interaction (AXB) Gender X Locale	167.45	1	167.45	1.35
Within Group (Error)	24377.14	196	124.37	
Total	28632.40	199		

**Significant at 0.01 level of confidence

4. Discussion

In educational research, the step that comes next to the collection of data is the analysis and interpretation of the collected data. This section is the heart of the research because it gives concise picture to the data. In other words it gives tongue to the otherwise mute data. It involves breaking down the existing complex factors into simple facts and putting the parts together in the new arrangement for the purpose of interpretation. It not only point out the important facts and relationships to give meaning to the data but also make certain generalizations about the data.

The present study was undertaken with the purpose of studying aggression among adolescents in rural and urban areas. This objective was achieved within the framework of the hypotheses mentioned. The raw data for the study was obtained with the help of survey. In order to screen the data for meaningful purpose and to test the hypotheses, the data was analyzed with the help of various statistical techniques. An attempt has been made to relate the outcome of the analysis to the framed hypotheses so as to arrive at meaningful conclusions. For the sake of convenience and keeping in view the nature and objectives of the study, the results have been presented into two sections.

Section I deals with the nature of score distribution for aggression to justify the application of various statistical techniques.

Section II has been dealing with the difference of means between aggression on the basis of gender and locale.

5. Conclusions

Following conclusions were drawn from the present study

1. A significant difference exists between mean scores of aggression of adolescent males and females. As the mean score of adolescent males is significantly higher than that of females on the variable of aggression, it may be further concluded that adolescent males are more aggressive than their female counterparts.
2. A significant difference exists between mean scores of aggression of rural and urban adolescents. As the mean score of rural adolescents is significantly higher than that of urban adolescents on the variable of aggression, it may be further concluded that rural adolescents are more aggressive than their urban counterparts.
3. No significant difference exists between mean scores of aggression among adolescents due to interaction between gender and locale. This indicates that though both gender and locale of adolescents' effect aggression among adolescents independently, however the effect of gender of adolescents on aggression does not depend on locale of adolescents and the effect of locale of adolescents on aggression does not depend on gender of adolescents.

6. Acknowledgment

The Author expresses his sincere gratitude to Dr. Seema Bajaj for the inspiration and constant support for this work. I extend my gratitude to Mr. Vir Vikram Sharma for his support during this study.

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