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## **Influence of Environmental Factor on the Stress of Adolescents**

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### **Abstract**

Environment can be defined collectively as physical, social, economic and psychological forces which affect the society in general and individuals in particular. The lengthiness of adolescence, the myriad changes, the uncertainty about the future, the anxiety over choices and other real life situations bring about stressful conditions to the adolescents. The Influence of Environmental factor (Socio Economic Status) on the Stress of adolescents was analyzed in 600 adolescents in the age group of 15 – 16 years, selected from various colleges of Mysore City. Out of 600 selected subjects 300 were adolescent boys and 300 were adolescent girls who represented equally all the three socio-economic groups namely, upper, middle and lower groups. The Socio Economic Status Scale and the Perceived Stressful Life Events Scale was administered to assess the Socio Economic status and the Environmental Stress of Adolescents. The results revealed that the lower class adolescent boys and girls exhibited comparatively high degree of environmental stress ranging from severe to moderate levels as compared to middle and upper class adolescent boys and girls and adolescent boys have experienced high degree of stress ranging from severe to moderate levels as compared to the adolescent girls. A highly significant difference is noted between the environmental factor and stress of adolescents. Parental care, involvement, guidance and immense support in time of need benefit and ensure adolescents healthy development.

**Keywords:** Environment, Socio economic status, Stress level, Adolescents

### **Introduction**

Environment can be defined collectively as physical, social, economic and psychological forces which affect the society in general and individuals in particular. The environment consists of all surrounding forces which may influence the organism in its efforts toward maintenance. A stress situation is one where extreme changes in temperature occur and that noxious substances are injected into the body. Stress situations might include inter-personal conflicts, group clashes, social conflicts, battle conditions, rapid economic change, a difficult but important life situation, intense competition, loss of a beloved one, natural disasters, acute illness or injuries, failures and so on. Stress has also been generally defined as an external force or situation that acts upon an individual which may result in unhealthy behavior and reactions. Stress is also the state manifested by a specific syndrome which consists of all the non-specifically involved changes within the biological system. Numerous cognitive, emotional and social changes take place as well. Relationships with parents and peers undergo change during adolescence. Although parents can continue to be important in the lives of adolescents, friendships can become increasingly important. The relationships with parents and family, work and lack of money were found to be important sources of stress for the adolescents.

Socio-economic status is a broad term which includes the infrastructural facilities, availability of civic amenities, sources of income generation, occupational patterns, educational status and living standards of the family concerned. The

socio-economic status is obviously a deciding factor as far as the personality of the adolescent is concerned. The lengthiness of adolescence, the myriad changes, the uncertainty about the future, the anxiety over choices and other real life situations also bring about stressful conditions and period to the adolescents. There has been increased interest in environment-adolescent relationships and that a number of behavior scientists have made notable contributions in this regard. Certain types of negative events tend to characterize the life experiences of low socio-economic status individuals, including greater exposure to violence. Threat appraisals have been linked to psychological distress and adjustment problems of adolescents who are known for high risk behaviors. Accumulation of stressful experiences significantly increases an adolescent's vulnerability to negative outcomes. Available coping resources, including social support and problem solving opportunities and capabilities significantly enhanced the morale of the adolescents in times of crisis and stress.

### **Materials and Methods**

A total of 600 adolescents in the age group of 15 – 16 years were selected from various colleges of Mysore City. Out of 600 selected subjects 300 were adolescent boys and 300 were adolescent girls who represented equally all the three socio-economic groups namely, upper, middle and lower groups. The tools were developed keeping in view the variables of the study, namely- environmental factor that is socio-economic and stress of the adolescents. The interview schedules were developed in order to collect the general and specific data respectively. The general data included - family background - family structure, family size and type of family. The specific data included – socio economic status and stress of the adolescents. The standardized questionnaire scales which were used to collect the specific data include – socio-economic status scale (SESS) by Bharadwaj (2001) and perceived stressful life events scale for adolescents by Venkatesh Kumar (1989). The data were consolidated and percentages were calculated. The data were statistically processed to interpret the results. The “F” test and ‘t’ test were applied to know the significant association and differences between the environmental factors and stress of adolescents.

### **Results and Discussion**

The data on the family type, structure and size shown in Table 1 revealed that majority (89%) of boys and (90%) of girls belonged to nuclear families, (97%) of boys and (99%) of girls lived with both the parents and a majority of the boys (67%) and girls (64%) had 4-5 members in their family.

The mean score in Table 2 on level of stress reveals that the lower class (45.16) adolescent boys have experienced severe stress as compared to the middle class (27.20) and upper class (13.62) adolescent boys. There is highly significant difference (‘F’ value – 48.290,  $P < .0001$ ) between the socio-economic status and severe stresses of adolescent boys. The mean score on level of stress reveals that the middle class (31.84) adolescent boys have experienced moderate stress as compared to the upper class (26.14) and lower class (25.74) adolescent boys. There is highly significant difference (‘F’ value – 3.949,  $P < .020$ ) between the socio-economic status and moderate stresses of adolescent boys. The mean score on level of stress reveals that the lower class (71.20) adolescent boys have experienced high level of stress as compared to the middle class (59.46) and upper class (39.79) adolescent boys. There is highly significant difference (‘F’ value – 30.194,  $P < .0001$ ) between the socio-economic status and total stresses of adolescent boys.

The mean score in Table 3 on level of stress reveals that the middle class (20.16) adolescent girls have experienced severe stress as compared to the lower class (18.92) and upper class (18.66) adolescent girls. There is highly

significant difference ('F' value – 38.047,  $P < .0001$ ) between the socio-economic status and severe environmental stresses of adolescent girls. The mean score on level of stress reveals that the lower class (17.21) adolescent girls have experienced moderate environmental stress as compared to the middle class (16.11) and upper class (14.83) adolescent girls. There is highly significant difference ('F' value – 9.881,  $P < .0001$ ) between the socio-economic status and moderate environmental stresses of adolescent girls. The mean score on level stress reveals that the lower class (30.14) adolescent girls have experienced high level of stress as compared to the middle class (28.68) and upper class (23.50) adolescent girls. There is highly significant difference ('F' value – 39.147,  $P < .0001$ ) between the socio-economic status and total stresses of adolescent girls.

The mean score in Table 4 depicts the level of stress. The table reveals that the lower class (39.33) adolescents have experienced severe stress as compared to the middle class (22.69) and upper class (11.86) adolescents. There is highly significant difference ('F' value – 82.912,  $P < .0001$ ) between the socio-economic status and severe stresses of adolescents. The mean score on level of stress reveals that the lower class (30.04) and middle class (30.06) adolescents have experienced moderate stress as compared to the and upper class (25.22) adolescents. There is highly significant difference ('F' value – 5.504,  $P < .004$ ) between the socio-economic status and moderate stresses of adolescents. The mean score on level of stress reveals that the lower class (69.82) adolescents have experienced high degree of stress as compared to the middle class (52.94) and upper class (37.09) adolescents. According to the overall mean score (53.28) have experienced high degree of stress. There is highly significant difference ('F' value – 66.040,  $P < .0001$ ) between the socio-economic status and stresses of adolescents.

The mean score on level of stress shown in Table 5 reveals that the adolescent boys (28.66) have experienced severe stress as compared to the adolescent girls (20.59). There is highly significant difference ('t' value – 4.132,  $P < .0001$ ) between the gender and severe stresses of adolescents. The mean score on level of stress reveals that the adolescent girls (28.97) have experienced moderate stress as compared to the adolescent boys (27.91). There is no significant difference between the gender and moderate stresses of adolescents. The mean score on level of stress reveals that the adolescent boys (56.82) have experienced high degree of stress ranging from severe to moderate levels as compared to the adolescent girls (49.74). There is highly significant difference ('t' value – 2.773,  $P < .0001$ ) between the gender and stresses of adolescents.

The results of the present study shows similarities with some of the past studies that have examined quite a few aspects of socio-economic influence and stress, which states that the relationships with parents and family, work and lack of money were found to be important sources of stress for the adolescents (Dona *et. al.*, 1992). Certain types of negative events tend to characterize the life experiences of low socio-economic status individuals. The deficiency of parental income also leads to poverty, inadequate food, malnutrition, ill-health, poor housing, educational backwardness, family problems, frustration among children and other problems (Soo Yeon Kim *et. al.* 2000). Economic and social stresses have significant effect on the behavior and adjustment patterns of adolescents. The family's economic status is associated with the quality of adolescents' relations with peers, school performance, and self confidence. Problems like depression, misconduct, psychological disorders, anti-social behaviors and maladjustment are also experienced by the economically under-privileged adolescents (Ronald Taylor, 2001).

One specific psychological characteristic and physiological marker in adolescence that has been related to both low socio-economic status and ill health is stress. Low socio-economic status children are more frequently exposed to unpredictable and stressful negative life events (Brady and Mathews, 2002). Stressful life circumstances in turn have been linked to negative biological and health outcomes in adolescents (Evans and English, 2002).

## Summary and Conclusion

The lower class adolescent boys, girls and total subjects exhibited comparatively high degree of environmental stress ranging from severe to moderate levels as compared to middle class and upper class adolescent boys, girls and total subjects possibly due to economic backwardness, social insecurity, gender bias, lack of moral support and other environmental constraints. The adolescent boys have exhibited comparatively high degree of stress ranging from severe to moderate levels as compared to adolescent girls possibly due to economic backwardness, social insecurity, lack of moral support, increased peer relations, more social contacts, high risk behaviors and other environmental factors.

The parents should also provide necessary autonomy to the adolescents at home and ensure their healthy development. They should also provide necessary medicare, psychotherapy, guidance and counseling in times of need. Parental care, involvement, guidance and support immensely benefit the adolescents since they are more potent influence than peers and siblings. Good parenting and strong families can prevent the adolescents from developing risk behaviors. Parents must be always vigilant to protect their children from the potential threats that seem increasingly complex in the modern society.

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**Table – 1 Family Background of the subjects**

<b>Type of Family</b>	<b>Boys (300)</b>	<b>Girls (300)</b>	<b>Total (600)</b>
Nuclear	267 (89.0)	270 (90.0)	537 (89.50)
Joint	18 (6.0)	15 (5.0)	33 (5.5)
Extended	15 (5.0)	15 (5.0)	30 (5.0)
<b>Family Structure</b>			
Single parent	9 (3.0)	3 (1.0)	12 (2.0)
Both parents	291 (97.0)	297 (99.0)	588 (98.0)
<b>Family Size</b>			
0 – 3	41 (13.67)	42 (14.0)	83 (13.83)
4 – 5	201 (67.0)	193 (64.33)	394 (65.67)
6 – 7	39 (13.0)	47 (15.67)	86 (14.33)
8 – 9	6 (2.0)	12 (4.0)	18 (3.0)
10 & above	13 (4.33)	6 (2.0)	19 (3.17)
<b>Total</b>	<b>300</b>	<b>300</b>	<b>600</b>

**Table – 2 Status-wise Distribution of Mean/SD, 'F' Value and Significance Level and Perceived Stress Levels of Boys**

<b>Perceived stress level</b>	<b>SES</b>	<b>Mean ± SD</b>	<b>'F' value</b>	<b>P value</b>
<b>Severe</b>	U C	13.62 ± 22.407	48.290**	.0001
	M C	27.20 ± 23.921		
	L C	45.16 ± 21.923		
<b>Moderate</b>	U C	26.14 ± 17.536	3.949**	.020
	M C	31.84 ± 20.488		
	L C	25.74 ± 12.539		
<b>Nil</b>	U C	0.00	.00	.00
	M C	0.00		
	L C	0.00		
<b>Total</b>	U C	39.79 ± 33.714	30.194**	.0001
	M C	59.46 ± 29.567		
	L C	71.20 ± 22.178		

P = Probability; \* sig. At .05; \*\* highly sig. at .01 levels  
 UC-Upper Class, MC-Middle Class, LC-Lower Class

**Table – 3 Status-wise Distribution of Mean/SD, ‘F’ Value and Significance Level and Perceived Stress Levels of Girls**

Perceived stress level	SES	Mean $\pm$ SD	‘F’ value	P value
Severe	U C	18.660 $\pm$ 1.866	38.047**	.0001
	M C	20.166 $\pm$ 2.017		
	L C	18.924 $\pm$ 1.892		
Moderate	U C	14.830 $\pm$ 1.483	9.881**	.0001
	M C	16.116 $\pm$ 1.612		
	L C	17.210 $\pm$ 1.721		
Nil	U C	0.00	0.00	0.00
	M C	0.00		
	L C	0.00		
Total	U C	23.503 $\pm$ 2.350	39.147**	.0001
	M C	28.686 $\pm$ 2.869		
	L C	30.142 $\pm$ 3.014		

P = Probability; \* sig. At .05; \*\* highly sig. at .01 levels  
UC-Upper Class, MC-Middle Class, LC-Lower Class

**Table - 4 Status-wise Distribution of Mean/SD, ‘F’ Value and Significance Level and Perceived Stress Levels of the Total Subjects**

Perceived Stress Level	SES	N	Mean $\pm$ SD	‘F’ Value	P value
Severe	U C	200	11.86 $\pm$ 20.64	82.912**	.0001
	M C	200	22.69 $\pm$ 22.53		
	L C	200	39.33 $\pm$ 21.25		
Moderate	U C	200	25.22 $\pm$ 16.22	5.504**	.004
	M C	200	30.06 $\pm$ 18.47		
	L C	200	30.04 $\pm$ 15.62		
Nil	U C	200	.00	.00	.00
	M C	200	.00		
	L C	200	.00		
Total	U C	200	37.09 $\pm$ 29.11	66.040**	.0001
	M C	200	52.94 $\pm$ 29.78		
	L C	200	69.82 $\pm$ 26.43		

P = Probability; \* sig. At .05; \*\* highly sig. at .01 levels  
UC-Upper Class, MC-Middle Class, LC-Lower Class

**Table –5: Distribution of Mean/SD, ‘t’ Value and Significance Level and Perceived Stress Levels of Boys and Girls**

Perceived Stress Level	Boys N = 300	Girls N = 300	‘t’ Value	P value
	Mean $\pm$ SD	Mean $\pm$ SD		
Severe	28.66 $\pm$ 26.12	20.59 $\pm$ 21.52	4.132**	.0001
Moderate	27.91 $\pm$ 17.34	28.97 $\pm$ 16.55	.766	.444
Nil	0.00	0.00	0.00	0.00
Total	56.82 $\pm$ 31.58	49.74 $\pm$ 30.91	2.773**	.006

P = Probability; \* sig. At .05; \*\* highly sig. at .01 levels  
UC-Upper Class, MC-Middle Class, LC-Lower Class