

■ **Original Article**

Evidences of stress and its consequences among Nepalese adolescents

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Abstract

Background: Changing emotional and physical status along with increasing social, family and academic pressure lead to various impairments in mental health of adolescents. **Objective:** To examine the level of stress and its consequences in school going adolescences and examine adolescent's adjustment at various places- home, school, peers, teachers and general matters. **Methods:** A descriptive and a single stage study were done at one of the school in Kathmandu Metropolitan. Every section of the class of the selected school was visited to explain the students about semi-structured pro forma, Student Stress Scale (SSS) and Pre-Adolescent Adjustment Scale (PAAS). The SSS was used to measure stresses faced by adolescents during last on year and PAAS measured their adjustments at places like home, school, peers, teachers and general matters. **Results:** 104 students participated in the study, male- 45, female- 59. Children with joint family type showed highest level of stress (mean 424.67; $p=0.002$). Among females, it is the broken family type which showed the highest level of stress ($p=0.002$). Among boys, second birth order showed highest level of stress (mean 382.31; $p=0.005$). Similarly among girls, it was first birth order (Mean 537.67; $p=0.009$). Among top 10 stressors labeled by students, highest stressor is death of a close family members followed by death of a close friend. **Conclusion:** Children during adolescent period undergo various stresses and adjustment and it depend upon their ability to cope with stress in various places like home, school, peers and teachers.

Keywords: adolescent, mother, stress, adjustment

Of all life-stages adolescence is arguably the one most marked by rapid and potentially tumultuous transition.^{1,2} This is to be seen not just in the domain of biological development where changes are externally manifest³ but is equally evident in the progression of both cognitive⁴ and psychosocial⁵ maturity from that of childhood to that of the fully functioning adult. While the transition through adolescence is inevitable⁶ the speed and magnitude of these changes overtax the capacity of many young

people to cope^{7,8,9} and the resulting phenomenon of adolescent stress is now well recognized.¹⁰

Well-being of adolescents is largely the product of interactions among the multiple contexts in which adolescents are embedded.¹¹ During adolescent phase, there is heavy academic and social pressure that results in negative emotional states and more internalizing problems.¹²

Methods

This is a descriptive study done at one of the school in Kathmandu Metropolitan city and it was a single stage study. This descriptive study was done from January 2008 to June 2008. School was randomly selected from the bibliography of the Ministry of Education. Consents were taken from the school

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administration. This school was established twenty-two years back and is day-scholar only and students are from nearby vicinities of middle and lower class family. Most of the children's parents work in Army and Police headquarters nearby. Some students are faraway places of Nepal working as a housemaid around the school area.

Meetings were arranged with teachers regarding the administration of the questionnaire with children and their parents. Every section of the class was visited to explain the students about semi-structured Performa and Parent-adolescence Communication Scale. Students were explained words by words meaning of the scale and how to answer it. With schools help, parent's meeting was also called and it was attended by significant numbers of parents. During this meeting, parents were also explained about Parent-adolescent communication scale. During the 6 months period of this research, parents meeting were organized thrice Non-responder forms were again reassessed and certain students were home visited and parents were explained about the instruments again.

On the basic of assumption that, it takes a mental age of about 10 years and fifth grade reading skills for self administration, age of at least 11 years and of at least grade five has been considered of giving Parent-adolescent communication form. Thus in this study, students from grade 7 were selected randomly with the help of school register. Sample was stratified random sample where students were stratified into age and sex and classes (from 7) and from they're selected randomly.

Every section of the class was visited to explain the students about semi-structured Performa and Parent-adolescence Communication Scale. Semi-structured Performa will include name of students, age, sex, class, permanent address, religion, and caste. It will also include family type and birth order of the students. Regarding the student's family- mother's age, occupation, educational status will be considered. Students were explained words by words meaning of the scale and how to answer it. Total of 150 students from class 7 to class 10 participated in the study. Total response from students was 104. Students with following conditions were Excluded (1) Children with mental retardation. (2) All children who do not communicate or who do not give consent by themselves or when parents refused to give consent.

Student Stress Scale

Student stress scale (SSS) was developed by the adaptation of Social Readjustment Rating Questionnaire (SRRQ) originated by the Holmes and Rahe.¹³ The SRRQ was used in an adult sample of 200 as an open ended questionnaire and the most appropriate items were selected. Scale items can be classified into personal or impersonal, desirable or undesirable or ambiguous. The scale consists of 31 items of stressful life events encountered by students. Subjects have to rate whether the events occurred in their life during the last one-year.

The scale can be administered easily to literate and illiterate subjects. Norms obtained in the study on Indian population suggests that an average individual experiences an average of ten common stressful events in a lifetime without suffering any obvious adverse physical or psychological disturbances. Similarly, the mean number of stressful events is approximately two (1.90+/-2.62). Weighted mean score for each stressful event were derived by the relative stress experienced by the subject on particular events. The total sums of all weighted scores of positive events were calculated. The authors have mentioned that the cut-off score for the Indian population is 300. If a person scores less than 300, then he/she is considered to be under a manageable level of stress.

Pre Adolescent Adjustment Scale (PAAS)

Pre Adolescent Adjustment Scale (PAAS) is an important test of adjustment in the battery of Pre-Adolescent Personality Test by Pareek, Rao, and Ramalingaswami & Sharma.¹⁴ Adjustment is defined as the individuals' orientation towards his parents, peers, school and himself in terms of satisfaction he derives from his interactional relationship with significant others and himself. This test measures adjustment of the child towards home, school, peers, teachers and general matters. Total adjustment is also measured by this test.

The scale consists of 40 items: home (9), school (8), peers (8), teachers (8) and general (7). For each area of adjustment a separate score is obtained. The total of the five scores gives the score for the total adjustment. It is a self report scale where responses are given in terms of "yes" or "no" and it can be administered both individually as well as in the groups.

There is no time limit for this test but usually it takes 20 to 25 minutes in completing this test.

In scoring, the scale values for various items for the five sub-scales are obtained from the table provided in the manual. These scale values are positive as well as negative for different items. Scores for each sub-scale are obtained by adding the scale values on the items checked by the subject. In each sub-scale, the sign (+ or -) should be used while adding the sum. The possible score range for each sub-score are home (-10 to +6), school (-7 to +9), peers (-10 to +9), teachers (-10 to +6) and general (-6 to +6). High positive scores indicate high adjustment in that area, while high negative scores indicate a high degree of mal-adjustment. Scores near zero indicate mild adjustment or mal-adjustment, depending on the magnitude and direction of the scores. The total adjustment score is obtained by adding scores on all the sub-scale. It ranges from -46 to +34. PAAS has got acceptable level of validity and reliability and significant inter correlation between adjustment on the five areas of adjustment.

Results

Total of 150 students from class 7 to class 10 participated in the study. Total response from students was 104. Male students were 45 (43.26%) and female were 59 (56.74%). Table 1 shows socio-demographic characteristics of adolescence. Table 2 shows comparison of levels of stress in male and female students along with birth orders and family types. Among males, children with joint family type showed highest level of stress (424.67). The t-test computed to compare the mean scores between different types showed significant difference with regards to the experience of stress level (0.002). Among females, it is broken family type with highest level of stress, with significant t-score when compared (0.002).

Considering birth orders, among boys, second birth orders shows highest level of stress (382.31) with comparing t-score showing significant in levels of stress (0.005). Similarly among girls, it is first birth orders (537.67) with t-score reaching significant level (0.009).

Table 3 shows the level of adjustment of male and female students and different birth orders. Boys and girls show high adjustment score at home as compared to other places, lowest scores were along with teachers. Considering birth orders, children belonging to third birth order show highest score at home and sixth birth order show lowest score. Adjustment scores in sixth birth orders are lowest in all situations. Table 4 compares adjustment scores in different family types. Score is highest at home, in other family types followed by nuclear family and joint family. Adjustment score in lowest at school in both nuclear and broken family. Table 5 shows top 10 stressors labeled by students. Highest stressor is death of a close family members followed by death of a closed friend.

Table 1: Socio-demographic characteristics of adolescences (sex, family type and birth orders)

Gender	Family Type	Birth Orders
	Nuclear Male - 17	First Male - 16
	Female - 19	Female - 15
Male (N= 45, 43.26%)	Joint Male - 15	Second Male - 11
	Female - 18	Female - 17
	Broken Male - 10	Third Male - 11
	Female - 21	Female - 16
Female (N= 59, 56.74%)	Other Male - 3	Fourth Male - 4
	Female - 1	Female - 6
TOTAL - 104		Fifth Male - 1
		Female - 4
		Sixth Male - 2
		Female - 1

Table 2: Mean scores and significance of student stress scale (SSS) (gender with family type and birth orders)

Gender	Family Type	N	Mean	SD	t
Male	Nuclear	17	356.31	163.62	2.229 (0.002)
	Joint	15	424.67	181.84	
	Broken	10	386.59	184.05	
	Other	3	308.56	153.56	
	Total	45	381.30	176.09	
Female	Nuclear	19	309.04	163.23	0.343 (0.002)
	Joint	18	315.38	161.22	
	Broken	21	387.41	81.39	
	Other	1	380	78	
	Total	59	313.64	158.97	
Gender	Birth Orders	N	Mean	SD	t
Male	First	16	346.22	145.23	2.29 (0.05)
	Second	11	382.31	186.52	
	Third	11	306.15	188.54	
	Fourth	4	266.3	166.42	
	Fifth	1	280	188	
	Sixth	2	255.42	186	
Female	First	15	537.67	217.53	2.192 (0.009)
	Second	17	390.21	196.3	
	Third	16	447.36	217.53	
	Fourth	6	351.77	210.5	
	Fifth	4	197.54	186.33	
	Sixth	1	247.72	190.53	

Table 3: Adolescent adjustment towards different situations with gender and birth orders (PAAS)

GENDER		Home	School	Peers	Teachers	General	Total
Male	Mean	5.75	3.17	3.11	2.93	3.55	18.51
	SD	2.84	2.05	2.09	2.24	2.69	8.36
Female	Mean	6.11	3.22	3.40	2.69	2.76	18.18
	SD	3.28	2.79	3.06	2.48	2.88	13.49
First	Mean	3.19	2.93	3.29	2.83	2.77	15.01
	SD	2.97	2.64	2.65	2.48	2.86	13.60
Second	Mean	3.03	2.07	3.39	2.53	3.03	14.05
	SD	3.28	2.77	3.51	2.61	2.25	14.42
Third	Mean	6	2.85	3.66	2.66	3.44	18.61
	SD	6.14	3.76	4.27	2.29	4.31	20.77
Fourth	Mean	5.1	2.4	2.1	2.2	3.7	15.50
	SD	4.74	2.16	2.21	2.35	3.37	15.16
Fifth	Mean	5	2.2	2.6	2.8	3.8	16.40
	SD	4.53	2.21	2.33	2.17	2.75	13.99
Sixth	Mean	1.07	1.33	3.33	1.77	1.66	9.16
	SD	1.85	2.47	2.78	2.55	2.35	12.00

Table 4: Adolescent adjustment towards different situations with gender and birth orders (PAAS)

Type of family	Home	School	Peers	Teachers	General	Total
Nuclear	Mean 6.61	1.55	4.22	3.30	3.16	18.84
	SD 6.44	4.32	4.88	4.41	3.52	23.57
Joint	Mean 5.24	2.45	2.69	3.03	3	16.41
	SD 6.34	3.88	3.16	3.89	4.08	21.35
Broken	Mean 5.67	1.38	2.93	3	3.16	16.14
	SD 6.16	2.17	4.35	3.76	4.44	20.88
Others	Mean 7	2.5	4	2	1.75	17.25
	SD 5.38	3.77	3.55	2.55	2.25	17.50

Table 5: Top ten stressors for adolescences

Death of close family member.
Death of a close friend.
Divorce between parents.S
erious argument with close friends.
Personal injury or illness.
Trouble with parents.
Failed important course.
New girl or boy friend.
Serious arguments with teachers.
Too many missed classes / Failed Grades

Discussion

Stress during adolescence has serious affect on their study. Male children experience high level of stresses compared to female children. Children these days face more stresses due to increased academic curriculum, competition in school and over expectation from parents. Parents expect male children to be high achievers. These findings have been simulated by Mahat.¹⁵ In contrast to these findings, Bruke & Weir¹⁶ found girls reporting greater life stresses than boys.

Second birth order children have greater level of stress as shown in study done by Thenmozhi.¹⁷ Joint family can also precipitates stress in adolescence because interference on communication by other family members between child and parent.

Report suggests that girls experience more interpersonal stress than boys, whereas boys experience more non-interpersonal stress than did girls.¹⁸ Though stresses are both equal in boys and girls, it is in different contexts. Adolescence boys are particularly sensitive to non-interpersonal stress.^{19,20}

Overall female adolescence showed higher level of adjustment in comparison to male children. In both

groups, adjustment levels toward home were better than in other domain which has also been found in other study.^{21,22}

Adjustment towards school was also good. Adjustment with peers was also at a positive level. In both male and female students, this good level of adjustment is due to strong peer bonding occurring at this stage and students spending most of their waking hours at school.^{23,24} Comparing the different domains, the level of adjustment towards home was high in all different birth orders.

Conclusion

The adolescent years are among the most stressful times in a person's life. Adolescence is the time of life when children change into adults. Adolescents are between stages. They have more responsibility and freedom than they did as children. But they have less responsibility and freedom than adults do. Their thoughts, behavior, and social relations are all changing radically. The rate of change varies from person to person. Reactions to stress vary with the adolescent's ability to cope, how long the stress continues, and the intensity of the stress. Some adolescents withdraw from others, some lash out at others, and some actively seek the comfort of others. Adjustment of adolescents at various aspects of life as in home, school, general environment and peers determine their abilities to cope with stress.

References

1. Brockman DD. From late adolescence to young adulthood. Madison CT: International Universities Press; 2003.
2. Cook TD, Furstenberg FF. Explaining aspects of transition to adulthood in Italy, Sweden, Germany and the United States: A cross-

- disciplinary, case synthesis approach. *Annals of the American Academy of Political and Social Science*. 2002; 580:257–287.
3. Seifert KL, Hoffnung RJ. *Child and adolescent development (5th Ed.)*. New York: Houghton Mifflin; 2000.
 4. Eccles JS, Wigfield A, Byrnes J. *Cognitive development in adolescence*. In R. M. Lerner, & M. A. Easterbrooks, et al. (Eds.), *Developmental psychology*. 2003; Vol. 6 (pp. 325–350). Wiley: New York.
 5. Muzi MJ. *Child development: Through time and transition*. Upper Saddle River NJ: Prentice-Hall; 2000.
 6. Price JH. A model for explaining adolescent stress. *Health Education*. 1985; 16, 36–40.
 7. Collins ME. Transition to adulthood for vulnerable youths: A review of research and implications for policy. *Social Service Review*. 2001; 75, 271–291.
 8. Davis M. Addressing the needs of youth in transition to adulthood. *Administration and Policy in Mental Health*. 2003; 30, 495–509.
 9. Jessor R. Successful adolescent development among youth in high risk settings. *American Psychologist*. 1993; 48, 117–126.
 10. Byrne DG, Mazanov J. Sources of stress in Australian adolescents: Factor structure and stability over time. *Stress and Health*. 2002; 18, 185–192.
 11. Resnick MD, Bearman PS, Blum RW, Bauman KE, Harris KM, Jones J, et al. protecting adolescents from harm: Findings from the National Longitudinal Study on Adolescent Health. *JAMA* 1997; 278:823-32.
 12. Verma S, Sharma D, Larson RW. School stress in India: Effect on time and daily emotions. *Int J Behav Dev* 2002; 26:500-8.
 13. Holmes TH, Rahe RH. The social readjustment rating scale. *Psychological Medicine*. 1967; 11:213-218.
 14. Pareek U, Rao TV, Ramalingaswami P, Sharma BR. *Manual for the battery of pre-adolescence personality test*. Varanasi: Rupa Psychological Center; 1967.
 15. Mahat, P. A study of stress coping and personality in conversion disorder. M.Phil Thesis. Institute of Medicine; 1999.
 16. Burke RJ, & Weir T. Sex difference in adolescent life stress, social support and well being. *Journal of Psychology*. 1978; 98(2): 277-288.
 17. Thenmozhi S. Behavioral problems and adjustment problems of step family adolescents in comparison with intact family adolescents. *Indian Journal of Applied Psychology*. 2001; 38 (1): 1-6.
 18. Rudolph KD, Hammen C. Age and gender as determinant of stress exposure, generations and reactions in youngsters: a transactional perspective. *Child Development*. 1999; 70, 660-677.
 19. Wagner BM, Compas BE. Gender, instrumentality and expressivity: moderators of the relation between stress and psychological symptoms during adolescence. *American Journal of Community Psychology*. 1990; 18, 383-406.
 20. Greene AI, Larson RW. Variation in stress reactivity during adolescence. In EM Cummings, AL Greene & KH Karrakar (Eds), *Life-span developmental psychology: perspectives on stress and coping*. 1991; 195-199.
 21. Wenz GM, Siperstein GN, Untch AS, Widaman KF. Stress, social support and adjustment of adolescents in middle school. *Journal of Early Adolescence*. 1997; 1: 41-56.
 22. Tulloch AL, Blizzard L, Pinkus Z. Adolescent-parent communication in self-harm. *Journal of Adolescent Health*. 1997; 21: 267-275.
 23. Sharma N. Mother adolescent's communication pattern in Nepalese adolescents. *Nepalese Journal of Psychiatry*. 2001; 4: 131-133.
 24. Jorgensen RS, Dusek JB. Adolescent Adjustment and Coping Strategies. *Journal of Personality*. 1990; 58 (3): 503-513.