

## Academic Stress Management: An intervention in Pre-University College Youth

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Academics is said to be the major cause of stress among the Pre-University College students. Academic stress is associated with poor performance and mental health. The study is aimed at identifying factors causing academic stress and developing and examining the efficacy of the stress management program. The sample was selected from four colleges; students of two colleges were taken in the study group (n=163) and students of other two colleges were under the control group (n=112). Pre assessment was carried out at the beginning of the academic year. Four workshops were conducted for the students of the study group. The post assessment was carried out after 3-4 months of intervention. Results indicated that majority of the students reported poor time management skills, lack of confidence, distractions, meeting standards set by self and others regarding future career as causes of stress. During post assessment there was a significant improvement in the overall coping and time management in the study group compared to the control group.

**Keywords:** Academic Stress, Pre-University College Youth, Stress Management.

Academics is known to be the most important and frequently reported cause for stress in students of all age groups, and specifically in Pre University College (PUC) students (Latha & Reddy, 2006). Some reasons for it include an abrupt change from school, high expectations, and demand to perform as PUC is considered as the turning point that decides the career. The stressors that contribute to stress among students can be divided into three kinds: 1) the physical and psychological changes or normative stressors 2) life events or non normative stressors (Isakson & Jarvis, 1999) and 3) the day to day stressors such as conflicts in relationships, academic requirements and daily hassles (Sim, 2000). Daily hassles related to interpersonal issues are said to be more frequently reported as sources of stress than life events (Ross, Neilbling, & Heckert, 1999). Similarly, among the daily hassles, academic stress is the most frequently reported factor contributing to distress among the college students (Connor-Smith, Compas, Wadsworth, Thomsen, & Saltzman, 2000). Of all the stressors identified by adolescents, 60-73% are related to

academics (Sahani, 2006), and 46%–82% are related to interpersonal relationships including conflicts with parents, close friends and romantic partners (Bowker, Bukowski, Hymel, & Sippola, 2000; Herbert & Manjula, 2013; Seiffge-Krenke, Weidemann, Fentner, Aegenheister, & Poebblau, 2001). In addition, financial hardship is also a recurring problem reported across studies (Magaya, Asner-Self, & Schreiber, 2005).

Academic stress has been linked to various negative outcomes like poor health, depression (Ang & Huan, 2006), poor academic performance and somatic symptoms (Struthers, Perry & Menec, 2000). According to adolescents' report, frequently faced academic problems are: homework, lack of time, inability to concentrate, memory problems, difficulty in subjects, examination anxiety and fear of failure (Latha & Reddy, 2006; Patel, Flisher, Hetrick & McGorry, 2007). Further, Latha and Reddy (2006) in their study on PUC students (n=100, 16-19 years) found that having to get up early in the morning, pressure to study, having to concentrate for longer hours during college, and not having enough money to buy things, added

on to the stress levels in the second year of pre-university course. In addition, high educational expectations and pressure for academic achievement from parents and teachers is found to be a major cause of academic stress in India (Deb, 2001).

Further, adolescents facing 10th and 12th class examinations reported experiencing more stress compared to those in other classes. Also, anxiety, depression and stress were significantly higher in those students obtaining lesser marks in the previous examinations and those who were taking tuitions for subjects (Bhasin, Sharma, & Saini, 2010). Similarly, Rao (2008) reported that class 12 students with higher grades had lower scores on Beck Depression Inventory and reported lesser stress than students who earned lower grades. Also, adolescents with good skills in regulating emotions experienced less academic stress (Akgun & Ciarrochi, 2003) and thus did not get adversely impacted by the academic stress.

Coping methods used during adolescence are said to be influenced by the developmental changes in cognitive, social and behavioural abilities. Older adolescents use more cognitive coping methods such as problem solving, reappraisal and emotion-oriented coping (Seiffge-Krenke, Kaisa Aunola, & Jari-Erik Nurmi, 2009). Whereas females use more social support, wishful thinking, tension-reducing strategies or withdrawal, males use more physical-recreation, ignore the problem, or avoidance (Eschenbeck, Kohlmann, & Lohaus, 2007). Prayer was used to cope with academic stress equally by both genders (Latha & Reddy, 2006). Thus, interventions for stress reduction should consider the developmental changes as well as gender.

In general, any stress faced by adolescents is not perceived as requiring psychological intervention. This is supported by the fact that only 11% of them seek help from mental health professionals for any kind of distress or mental health concerns (Andrews, Issakidis, & Carter 2001). The attitude towards seeking help is overall negative, and Asian students with distress are specifically reported to distance

themselves from professional psychological services, as psychological distress is commonly viewed as resulting from personality flaws, lack of will power, and immaturity and disclosing personal distress to outsiders is perceived as bringing shame to the family (Boey, 1999; Kung, 2004). However, if stress management programs are carried out in the campus they are received well (Paul, Elam & Verhulst, 2007; Redwood & Pollak, 2007).

Pre University College students, in the Indian context, face unique academic stress. The increasing cases of suicide during the examination / result times' also show that adolescents lack the coping skills to deal with academic stress and failure. This indicates an urgent need to address the issue. However, there is a serious lacuna of programs that deal with academic stress. Thus, the present study was planned to develop a stress management module that deals with academic stress and examine its usefulness in the college set up so that the students do not have any reservation to attend the program. This program used a universal intervention approach in which all the students in a class are included in the intervention without any selection.

### Objectives

The objectives of the present study were: 1) To assess academic stress and the skills and coping methods used by the adolescents and 2) To develop a stress management program and examine the efficacy of the program in reducing psychological distress and improving coping.

### Method

*Sample:* The sample was drawn from PU colleges of Bangalore using a two stage random sampling method. Four colleges were selected randomly from the list of colleges and from each college, one class of students from science stream was randomly selected. The students from two colleges served as a control group and from the other two colleges as a study group. The intervention adopted a two group pre-post comparison method. Those students with working knowledge of English (read, write and understand) and studying in Science stream were included in the study.

## Tools

The tools used in the study are:

1. *Socio Demographic Data Sheet*: A socio demographic data sheet was developed to collect information regarding participants, parents and family and also information on kind of academic difficulties causing stress.

2. *The Inventory of College Students' Recent Life Experiences (ICSRLE; Kohn, Laferniere, & Gurevich, 1990)*: ICSRLE is designed to identify exposure to sources of stress or hassles experienced over the last month. There are 49 items with seven factors such as developmental challenge, time pressure, academic alienation, romantic problems, assorted annoyances, general social mistreatment, and friendship problems. The inventory was developed uniquely for college students. The items are rated on a 4-point scale, 0= not at all part of my life to 3= very much part of my life. The total score is obtained by adding all the scores. The scores range from 0-147, with higher scores indicating greater stress. Internal consistency for the scale is 0.89. Criterion validity with perceived stress scale ranged from 0.17 to 0.48.

3. *Coping Checklist (Rao, Subbukrishna, & Prabhu, 1989)*: The coping checklist consists of 76 items describing a broad range of behavioural, emotional and cognitive responses that are used to handle stress. The items are answered as 'yes' or 'no' indicative of presence or absence of a particular coping behaviour. The scale is standardized for high school educated people with the knowledge of English. It has seven subscales – problem focused distraction positive, distraction negative, acceptance/ redefinition, religion/faith, denial/blame, and social support. The score ranges from 0-76; a high score indicates better coping. The test-retest reliability for one-month period is 0.74 and the internal consistency for the full scale is 0.86.

4. *Self-Assessment of Study skills*: Due to the lack of tools to assess the study skills used by students in the Indian context a proforma to identify the time management and study skills of the participants was developed. The final tool comprised of 62 statements

of which 25 statements were related to time management (planning, organising, scheduling, goal setting, handling distractions) and 37 statements related to study skills (study place, regularity, methods of study, writing, methods of attending). The items were scored as: rarely=1, sometimes=2, and often=3. Some of the items were negatively stated and their scoring was rarely=3, sometimes=2, and often=1. The total score was obtained by adding all the scores. The scores range from 0-186 and a high score indicate good time management and study skills. The scale was developed by generating a large number of items and validating it by giving it to professional experts and administering on a small group of students (m = 30). The items that were less endorsed were removed and similar items were disintegrated.

## Procedure

The study protocol received ethical clearance from the NIMHANS ethics committee. After obtaining permission from the Principals of the colleges, dates for assessments and interventions were fixed according to the convenience of the college authorities and students. Written informed consent was sought from the students. Psychological help and appropriate referrals for those who sought help were offered. The study was carried out between July 2010 and January 2011. The total number of students assessed in the pre-assessment was 273 from four colleges (163 in the study group and 112 in the control group).

The components for stress management program was developed based on the data obtained from pre-assessment, findings from the literature and available cognitive behavioural stress management programs. The module included time management, relaxation, and study skills, which included study environment, study methods, task management and memorization techniques; good habits, coping, cognitive restructuring and reappraisal; social relations, problem solving and dealing with failure.

For the study group participants from two colleges (college 1, N=86 and college 2, N=102), four weekly sessions, each of two hours duration was carried out in the college premises. The

workshops were conducted through power point presentations, group discussion activities and games. The workshops were carried out by the author with the help of the project staff. At the end of the workshop feedback was taken from the participants. The post-assessment was carried out after three months of conducting the workshops for participants of both groups. The total number of students available for post assessment from the study group was 124 and from the control group, it was 66. The numbers decreased as the examinations were approaching and students were not regularly attending college.

### Results

*Analysis of the data:* The data was analysed using the SPSS-14. Descriptive statistics such as mean, frequency, standard deviation was used to describe the data. To assess the difference between the two groups at pre and post assessment, t-test and ANCOVA and Munn Whitney U-tests were used. Paired t-tests were used to compare the pre-post scores within the groups.

Mean age of the study group was 16.78 ( $\pm 0.59$ ) and that of the control group was 16.68 ( $\pm 0.58$ ). Majority of the students belonged to nuclear families (79.7%) with family size of 2-4 members (58.2%) and most of them (62.8%) had one sibling.

**Table 1: Socio-demographic details of the study and control groups**

		Frequency	Percentage
Father's education (n=244)	High school	109	44.7
	Graduate	108	44.3
	Post graduate	27	11.1
Father's occupation (n=262)	Educators	9	3.4
	Professionals	55	21
	Businessman	99	37.8
	Petty Jobs	34	13
Mother's education (n=240)	High school	152	63.3
	Graduate	76	31.7
	Post graduate	12	5.0

Mother's occupation (n= 270)	Educators	18	6.7
	Professionals	7	2.6
	Business	6	2.2
	Others	19	7.0
Family type (n=266)	House wife	220	81.5
	Nuclear	212	79.7
	Joint	42	15.8
	Extended	12	4.5

From Table 1 it is evident that more number of fathers were educated up to the level of graduation and were working compared to mothers.

The mean scores of the study and control groups on the causes of academic stress during pre assessment were 2.57 ( $\pm 1.48$ ) and 2.18 ( $\pm 1.53$ ) and during post assessment 2.44 ( $\pm 1.52$ ) and 2.15 ( $\pm 1.53$ ), respectively. Mann-Whitney U-test showed significant differences between the groups at the pre assessment level ( $U=7358$ ;  $p<0.01$ ); however, the difference at the post assessment level was not significant ( $U=3572$ ;  $p>0.05$ ) and the analysis of covariance, which adjusts for the group difference also did not show a significant difference at the post assessment  $F(1, 186) = 0.979$ ;  $p>0.05$ .

The top-three problem areas reported by students of both the groups at the pre assessment level were: not getting enough time to study, distractions and lack of self-confidence. At the post assessment level an item wise comparison showed that lesser number of study group students reported being under-confident compared to the control group ( $X^2(2), N=190$ ) = 2.92,  $p<0.05$ .

There was a significant difference between the groups on ICSRLE and coping checklist at the level of post assessment. However, scores on study skills and time management did not show any significant difference from pre to post assessment between the groups. Comparison of the groups on the subscales of ICSRLE during pre assessment showed significant difference on time pressure ( $U=7354$ ;  $p<0.01$ ); and also during post assessment the study group showed significant improvement on the subscale of time pressure,  $F(1, 187) = 5.79$ ;  $P<0.01$ .

Comparison of the subscale scores of

**Table 2: Frequency and percentage of students reporting different causes of academic stress during pre and post assessments**

Causes of academic stress	Study group		Control group	
	Pre [n (%)] N=163	Post [n (%)] N= 124	Pre [n (%)] N=112	Post [n (%)] N=66
1. Not getting enough time to study	103 (63.2)	74 (59.7)	67 (59.8)	34 (51.5)
2. Not getting necessary guidance in studies	34 (20.9)	38 (30.6)	24 (21.4)	12 (18.2)
3. Difficulty in understanding subject	49 (30.1)	41 (33.1)	24 (21.4)	11 (16.6)
5. Very high expectations of parents	36 (22.1)	22 (17.7)	20 (17.9)	12 (16.6)
6. Tense atmosphere at home	30 (18.4)	22 (17.7)	17 (15.2)	10 (15.1)
7. Siblings disturb whenever I study	36 (22.1)	24 (19.3)	14 (12.5)	4 (6.1)
8. Lack of self confidence	52 (31.9)	32 (25.8)	33 (29.5)	29 (43.9)
9. Distractions like friends, internet, phones, recreational activities	51 (31.2)	33 (26.6)	36 (32.1)	16 (24.2)
10. Any other	17 (10.4)	8 (6.4)	0 (0)	9 (13.6)

**Table 3: Comparison of study and control groups on ICSRLE, SAF, and CCL during pre and post assessments**

	Pre assessment <sup>a</sup>		t score (df=273)	Post assessment <sup>a</sup>		t score (df=188)
	Study group (n=163)	Control group (n=112)		Study group (n=124)	Control group (n=66)	
	Mean (SD)					
ICSRLE	70.26 (14.93)	67.95 (14.68)	1.26 NS	70.21 (14.03)	65.73 (13.23)	2.14*
CCL	38.75 (7.06)	38.63 (20.05)	0.13 NS	40.75 (9.22)	36.63 (18.44)	2.44**
Study skills	48.98 (8.28)	49.75(6.30)	-0.830 NS	50.23 (6.02)	51.53 (5.71)	-1.44 NS
Time Management	76.97 (9.03)	77.42 (10.86)	-0.373 NS	76.67 (10.15)	79.35 (10.25)	-1.73 NS

a= the sample size for different tools did not remain the same; \* p - Significant at 0.05 level; \*\*p - Significant at 0.01 level; NS – p not significant

copied checklist during the pre assessment level showed no significant difference; however, at the post assessment level there was a significant difference on the subscales of distraction negative ( $U=5045$ ;  $p<0.01$ ). The study group used more distraction negative than the control group, and religious coping was used more by the study group ( $U=5066$ ;  $p<0.01$ ). However, on observation of mean subscale scores of the groups during pre assessment in the order of higher scores are as follows: emotion focused distraction positive, followed by acceptance / redefinition, denial/blame and problem solving. During post assessment the most widely used coping method was distraction positive, acceptance/redefinition and problem solving followed by denial/blame.

Paired t-test comparing the subscale scores of ICSRLE from pre to post assessments showed that academic alienation scores increased significantly in the study group,  $t(123) = -2.2$ ,  $p<0.05$  whereas, there was increased developmental challenges in the control group,  $t(65) = 2.18$ ,  $p<0.05$ . Similarly, there was a significant change in the time management factor,  $t(122) = 2.07$ ;  $p<0.05$  in the study group and no such difference was observed in the control group. Also, the paired t-test for CCL total score showed a significant difference between the pre and post scores for the study group,  $t(149) = 5.91$ ;  $p<0.001$  and the control group  $t(83) = 5.69$ ;  $p<0.001$ .

### Discussion

The sample characteristics of the study (Table 1) reflects the general trend of the urban family set up as well as the educational background of the parents who prefer to send their children to the private institutions. Similar kind of family size was reported in a study by Nandini, Kapur, Uma and Subakrishna (1998) on school going adolescents where majority of the students belonged to nuclear families. According to the problem areas reported on the socio-demographic data sheet (Table 2), time management is reported to be a major problem, which may according to students' explanation be, because all the students had to attend the coaching classes and college as well, the coaching classes used to take up a major part of the time in the evening and morning hours, which essentially consisted of their study time. However, none of the students felt that without tuitions they can manage. This majorly came in the way of planning their time. Similar findings were reported in other studies (Latha & Reddy, 2006; Patel, et al., 2007), wherein lack of time constituted one of the major problems. It seems like unless the students and their parents do not take a call on the tuitions or the amount of time spent in tuitions, this problem may continue, burdening the students and hampering their performance. A similar difficulty of time management (owing to the time spent in coaching classes) was reported by science students in a study on pre-university students conducted by Jayaprakash (2006). The other two most frequently reported difficulties by both the groups were lack of self confidence and distractions due to their friends, and the technology (mobiles and internet). Distraction due to friends and romantic relationships is an important finding reported across studies (Herbert & Manjula, 2013). In the context of the internet addiction and its adverse impact on students, it is been an established fact that students tend to spend a lot of their non school hours on internet, which is known to affect their academic as well as other areas of functioning (Kuss & Griffith, 2011).

At the post intervention stage, the top three difficulties reported by the study group

were lack of time, not understanding the subject and not getting necessary guidance in studies. It is observed that the number of students facing difficulty due to lack of time, lack of confidence and distractions that were reported in the pre-assessment was reported by less number of students. The changes from pre to post assessments may be attributed to the intervention, which focused on time management, handling distractions and other stress management skills. Since, it was close to examination they would have started to focus more on studies and found that they were not able to understand the subjects and also the available time was not adequate. Similar findings are reported in the study on pre-university students conducted by Das and Manjula (2009). However, for the control group students the top three problems at the post assessment stage remained the same as they were during pre assessment. In addition, lack of confidence had worsened whereas in the study group it had improved. The finding indicates that even with a brief intervention an impact can occur on the coping skills with academics by improving the confidence through effective use of time, solving problems related to distractions and enhancing beliefs about self.

On ICSRLE, there was a significant difference found between the study and control groups on the overall stress experienced; the control group had lower scores (Table 3). This may be because the control group had lower scores to begin with. On subscales of ICSRLE the students in the study group had significantly increased sense of alienation during the post assessment, which may be due to the approaching examinations that would have contributed to anxiety and thus, alienation. Students in the control group had a significant increase in the developmental challenges, which again includes meeting the standards set by self and others, taking important decisions related to studies and career and problems with friends. The findings support the fact that the stress related to studies take priority compared to anything else at this age and all the more when the examinations are close (e.g. Das & Manjula, 2009).

There was a significant difference between the two groups during post assessment on

the CCL, indicating an overall impact of the intervention on the coping skills. The mean scores also reflect the improvement in coping in the study group. While there is an increase in the scores of the study group; scores have decreased significantly in the control group indicating deterioration in coping.

Subscale scores during the pre assessment showed that both the groups used the following coping strategies in terms of frequency: emotion-focused distraction positive, followed by acceptance/redefinition, denial/blame and problem solving. At the post assessment stage the most widely used coping method was distraction positive, acceptance/redefinition and problem solving followed by denial/blame. There seems to be more usage of problem solving than denial at the post assessment stage, indicating a positive change. Studies have shown that problem-focused coping strategies are highly correlated with measures of psychological well-being and also considered as a healthier way of coping (Herbert & Manjula, 2013). Most of the students were using distractions like, going for walk, listening to music, indulging in a hobby etc. to cope with stress. This is helpful in the short term whereas in the long run it is not found to be helpful. Researchers also suggest that approach oriented strategies have been associated with better psychological adjustment and avoidance oriented strategies with poorer psychological adjustment (Connor-Smith et al., 2000). Accepting the situation and thinking about it in another way or denying the problem were other prominent coping methods used by students. Among the above two, the former is helpful whereas the latter is an avoidance strategy, which is not suggested to be helpful. However, students seem to use this for a short term relief (e.g. Jayaprakash, 2006). On the subscale scores, the fact that the study group tended to show significantly higher scores on religious and distraction negative coping strategies at the post assessment level indicates the usage of more emotion focused coping methods as the examinations were closer. The findings go along the fact that religious coping is one of the important coping methods in the

student population during the times of stress (Pargament, Smith, Koenig & Perez, 1998).

On study skills and time management, the change was not significant between the groups however, the study group showed significant improvement in time management from pre to post assessment. This may be attributed to the strategies taught in the intervention sessions. The results also seem to indicate that towards the examinations the students tend to improve their time management however, study skills may require more time to master. This seems to be the important finding of the study, as the students have reported lack of time as the most important contributor to academic stress across the tools used in the study. The results reflect on the fact that stress management is effective in reducing the stress levels by improving the coping strategies used.

The study is one of the first attempts at conducting an intervention program for academic stress in the college set up. Considering the fact that it was based on the 'universal intervention' paradigm, which addresses the sample as a whole without any selection the findings are significant enough. One of the reasons for marginal changes also may be the fact that the students attended only two workshops and there were no individual inputs as well as follow-ups. In addition, the motivation level of the group also is a limiting factor. Keeping the above limitation in mind, it can safely be concluded that even a brief intervention can have a significant impact. Some of the strengths of the study are that a control group was used in order to establish the effectiveness. The intervention was carried out at the beginning of the academic year and the post assessment was done after 4-5 months, to ensure that adequate time is given for the students to make use of the strategies taught in the intervention. The components of the intervention were developed based on the information obtained at the pre assessment. The size of the study group as well as control group was fairly large thus, generalizations can be made.

The study however has some limitations that should be considered while interpreting the

results. The self-assessment form for assessing time management and study skill was not standardized for the population. Two sessions of workshops had to be conducted on the same day because of time constraints; if there was adequate time the components would have become clearer to the students. The number of students completing the post assessment was less than the pre assessment because of the examination time; this would have impacted the results. Booster sessions were not carried out, and a long gap between the examinations and intervention could have impacted on practicing of the strategies throughout. The components of the intervention addressed other aspects like self confidence, dealing with disappointments; however, these were not assessed. Future research can replicate the program in a wider range of colleges (government and private set up) and the age range (under graduate students), with booster sessions and a few sessions with the parents, to discuss about the expectations and pressure to perform.

### Conclusion

Major stressors reported by pre-university college students that caused academic stress were lack of time, lack of confidence, distractions, challenge to meet the academic standards of self and others, and conflicts with friends. The coping methods mostly used were distractions, acceptance, denial, and problem solving. The universal brief intervention seems to have an impact on the coping and the time management of the students in the study group. The findings indicate the efficacy of a brief, universal group stress management program in reducing academic stress. Interventions with more sessions delivered over the course of the college may be more beneficial.

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