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Psychological and Emotional Changes among Students Undergoing Different Teaching Strategies- A Survey

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Authors' contributions

This work was carried out in collaboration among all authors. Author SM did the literature search, data collection, analysis, manuscript writing. Author GS did the study design, data verification, manuscript drafting. All authors read and approved the final manuscript.

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ABSTRACT

Background: Stress is a common and serious threat that affects different populations in various age groups. Students belonging to professional courses in medical and dental colleges are subjected to higher levels of stress.
Objective: The objective of the present study was to assess stress associated with different teaching strategies in students of various professional colleges and its influence on academic, social and health-related factors.
Methods: A cross-sectional study was conducted among 100 students of medical, dental and engineering colleges from the urban area of Chennai city using a convenience sampling technique. A self-developed questionnaire consisting of 18 questions was used for the data collection to analyse the level, frequency, reason for stress, stress symptoms, type of education they undergo, stress relief methods followed. This questionnaire was circulated by Google forms and the responses were collected. Analysis was done using frequency analysis and chi-square test.

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Results: Results revealed that the majority of participants about 57.7 % are undergoing regular education, 23% of students are undergoing express education and 18% of students are undergoing online education. About 70% of respondents stated that they feel stress. Majority of participant in the regular mode of education responded that they took antidepressant drugs (23%), music (16.5%) for the habit of fighting against stress and the association was found to be statistically significant.

Conclusion: The study concluded an innovative finding that most of the students underwent regular education and were better at academic performance and stress pertaining to academics was dealt with habit of hearing music and intake of antidepressant drugs.

Keywords: Student; psychological; emotional; different; teaching strategy.

1. INTRODUCTION

In the modern days students are usually more prone to a lot of stress, it might be personally or academically [1][2]. Students indicate that a triangle of stress exists between what is happening in life i,e social life, academician life, and family [3,4]. Different individuals have different ways of learning. Some can associate better ways of knowledge gained by visual, some can associate by audio or some certain sense [5,6–11]. Students faced different stress levels according to different teaching styles. The survey was done among students undergoing 3 different teaching strategies i.e, regular education, express education and online education.

Regular education is widespread, normal education is used in most of the colleges and schools [5,12]. Express education is education where the total syllabus is covered in less time, piles up ones and keeps on repeating the syllabus. Online education is where teaching is done on digital platforms[13]. If the teaching style matches the students' preferences of gaining the knowledge, learning becomes easier, important results and decreases learning time and stress [14,15,16]. Students face a lot of mental stress due to change of teaching styles from school and college. In recent days even students are given a lot of assignments. Students are affected physically because they are more prone to assignments and stress.

Students face various kinds of stress where the teaching style, curriculum is changed. In school, usually the type of teaching is where a teacher help students to cope up with the academics, but when the student enters the college, where the type of learning process are altered sometimes like where students alone have to prepare for assignments or exams, so at this point the students start facing new issues particularly because of the type of education and teaching has changed. Students may face a lot of stress due to the above reasons. If the teaching style matches the student preferences of gaming the knowledge learning becomes easier, improves results and decreases learning time. In order to provide effective learning, teachers and instructors should take care of individual differences which concern learning and mould the teaching strategy such that students excel in academics [17,18–20].

Express type of education is a technique where the students will be taught a complete set of syllabus in a very short period of time. This is commonly adopted in semester type of education and fast batches courses in NEET, IIT syllabus coaching centres. There are many differences in the students' perception about these different types of education. But there were scanty reports on this concept.

Our team has extensive knowledge and research experience that has translate into high quality publications [21–25] [26–30].

So the present study planned to investigate the psychological and emotional changes in students undergoing different teaching strategies of learning.

2. MATERIALS AND METHODS

The study was conducted among students of medical, dental and engineering colleges and the assessment of psychological and emotional changes perceived by different forms of teaching strategies adopted by different colleges in Chennai city was done. A self-developed questionnaire consisting of 10 questions were prepared and circulated through Google forms and the students were made to answer them and the responses were collected. The questionnaire is self administered and contains 20 closed ended questions and demographic details were

also asked. The survey was conducted among 100 students belonging to different colleges and different disciplines. The method of sampling is convenient sampling technique. Results were collected and analysed in excel sheets and that data was entered in SPSS software and the results were represented in pie charts. The statistics were done using Descriptive Statistics and frequency analysis. Chi square test was used to analyze and compare the different psychological and emotional behaviour of students and the level of significance was fixed at $p<0.05$.

3. RESULTS

The results of the cross sectional study revealed that the majority of respondents are female i,e 66.99%, and male are 32.04%. 68.93% lie around the age of 18 years, 18.45% are 19 years, 12.62% are 20 years. (Fig 1) 24.3% of responders are undergoing express education, 57.7% of responders are undergoing regular education and rest of the responders are undergoing online education i,e 17.3% .(Fig 2)In the last month how often have you been upset because something that happened unexpectedly is 5.8% never 18.3% are almost never, 52.9% sometimes, 18.3% is fairly often, 7.7% very often. In the last month, how often you felt nervous and stressed are3.8% never 19.2% are almost never, 57.7% sometimes, 11.5% fairly often, 7.7% very often. In the last month how often have you felt confident about your ability to handle your personal problems? 12.5% are almost never, 66.3%sometimes, 10.6% is fairly often, 10.6%% very often (Fig. 3) Rate your academic performance on scale of 5 1 is 3.9% 2 is 1% and 3 is 26% 4 is 57.7% and 5 is 12.5 %. (Fig 4) What do you think is the major reason for stress? 16.3% are academic reasons, 29.8% are personal reasons, 43.3 % are both and 10.6 % are none. If academics are the main cause of your stress what do you think is the important academic factor that is responsible for your stress? 48.1% are syllabus and time management 24% is strict attitude of staff 27.9% are strict attitude of staff. If personal problems are the main cause of your stress then mention the main reason for your stress are adjustment with friends and problems with friends is 35%, financial problems are 30.8% and 35.6% are health problems. stress management techniques you follow are 9.6% yoga, 51% are meditation 35.6% are exercise. Fighting stress in another way is 5.8% is smoking 50% are alcohol, 43.3% are antidepressant drugs and 1% anti anxiety drugs. The symptoms of stress are 42.3% headache, 21.2% vomiting 15.4% are unable to sleep, 10.6% are unable to concentrate on academics.

3.1 Cross Tab Evaluation

About 37% participants with a regular model of education developed lower stress compared with other modes of exercise and the association was not statistically significant as in Chi square test p value = 0..230 ($p<0.05$) (Fig. 5). Majority of participant in the regular mode of education responded that they took antidepressant drugs (23%), music (16.5%) for the habit of fighting against stress and the association was found to be statistically significant as in Chi square test, p value = 0.04 ($p<0.05$) (Fig. 6).

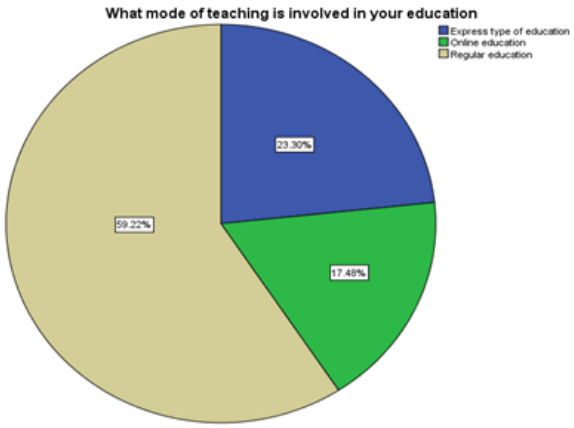

Fig. 1. Represents the pie chart representing what mode of teaching is involved in their education. 23.3% participants expressed a type of education. 17.48% represents online education, 59.22% regular education. Cream represents regular education, blue represents express type of education, green represents online education. Majority of students preferred regular education

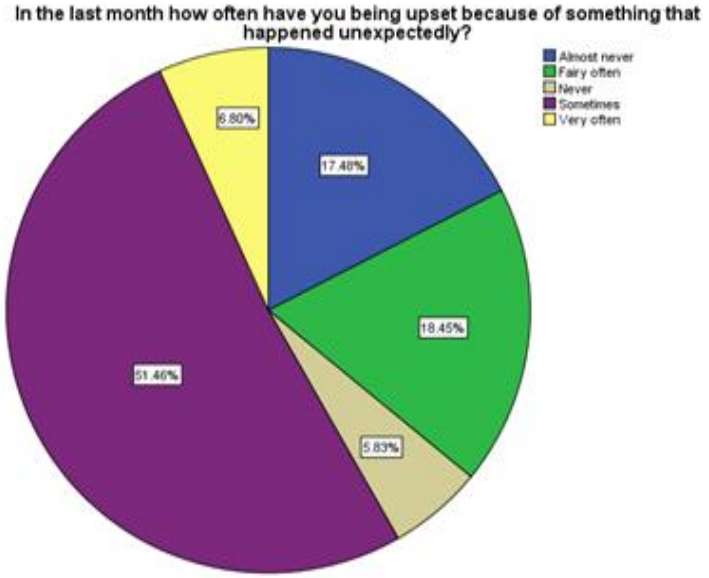

Fig. 2. Represents the pie chart representing how often respondents felt how often you felt nervous and stressed?. Cream represents never, blue represents almost never, green represents fairly often, violet represents sometimes and yellow represents very often. 6.8% participants expressed very often. 17.48% are almost never. 18.45% represents fairly often.5.83% represents never. 51.46% sometimes. Majority of responders says sometimes they felt upset because of unexpected things

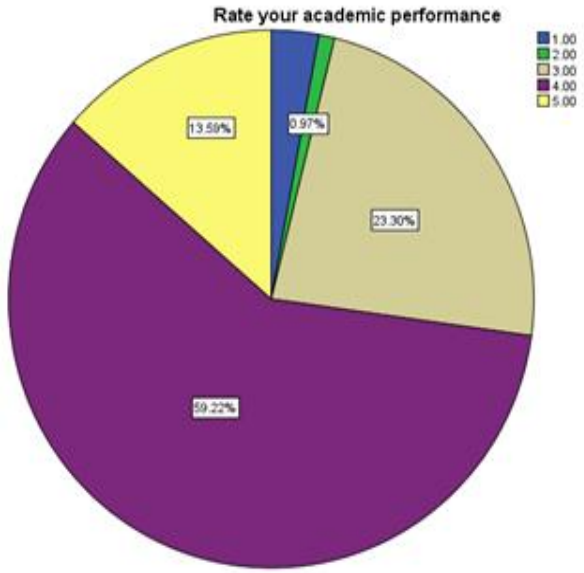

Fig. 3. Represents the pie chart representing respondents' academic performance. blue represents and it is 0.97%. Cream represents 3 and it is 23.3%. violet represents 4 and it is 59.22% and yellow represents 5 and it is 13.59%. Academic performance of majority of respondents lie around 4 on scale

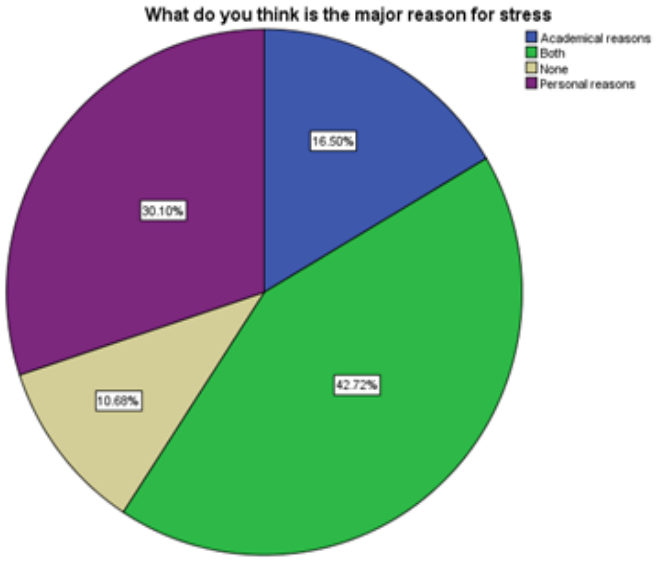

Fig. 4. Represents the pie chart and represents main reasons for stress. Cream represents none which is 10.68%, blue represents academical reasons which is 16.5%, green represents both which is both, violet represents personal reasons which is 30.1%. Majority of respondents said both academic and personal reasons for stress

CROSS TAB EVALUATION

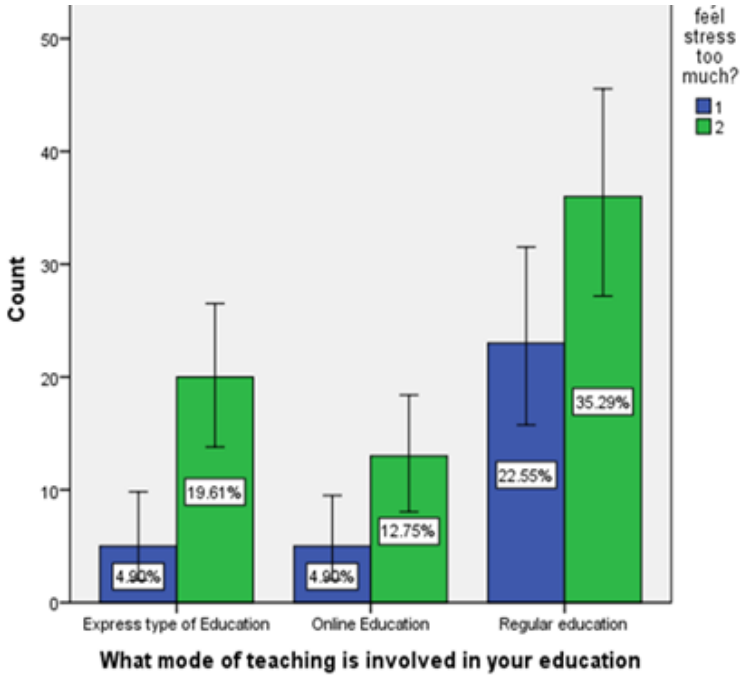

Fig. 5. Represents the bar graph representing the association between how much respondents feel stress and mode of teaching involved. The x-axis represents mode of teaching involved and y- axis represents responders how much stress they feel. Green denotes yes and blue dentes yes. About 37% participants with a regular model of education developed lower stress compared with other modes of exercise and the association was not statistically significant as in Chi square test p value = 0..230 (p<0.05)

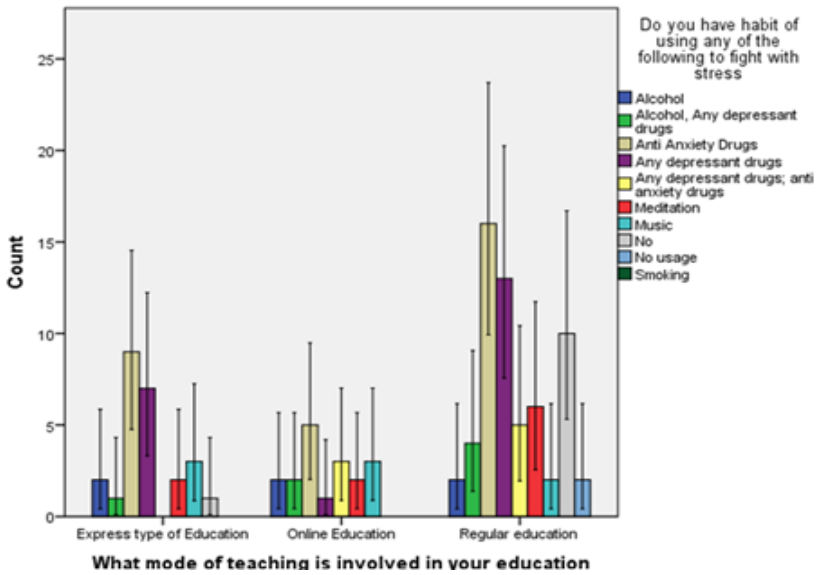

Fig. 6. Represents the bar graph representing the association between mode of fighting stress and mode of teaching involved. The x-axis represents the mode of teaching involved and the y- axis represents habits of fighting stress. Dark blue represents alcohol, green represents antidepressant drugs, cream represents anti-anxiety drugs, red represents meditation, sky blue represents music, green represents smoking. Majority of participant in the regular mode of education responded that they took antidepressant drugs (23%), music (16.5%) for the habit of fighting against stress and the association was found to be statistically significant as in Chi square test, p value = 0.04 (p<0.05)

4. DISCUSSION

Students experiencing express type education had more stress factors due to lack of time for preparation, heavy class content, higher demands , overload of extracurricular activities, heavy competitiveness among students and family problems [31][32][33]. The respondents found difficulty in coping with stress and were emotionally affected. They responded that majority of participants indulged in good stress relaxation like yoga, meditation and exercise and negative stress methods like alcohol and smoking and use of antidepressant drugs.

Previous studies also supported our findings. Another factor is that gender was found to be one of the most important factors in the development of stress, our results indicate a female predominance. This is consistent with previous reports by some reports [34]. Another research was undertaken to study the different sources of stress, their effects and coping strategies adopted by 139 general stream of teachers in a classroom and 39 special education teachers from eight private schools in Beirut, Lebanon using a questionnaire [35-36]. The responses to the questionnaire revealed that there was no significant difference between special education and general (and at times integrated) classroom teachers but all of them perceived different types of stress in relation to all sources and effects of stress [30].

Another study focused on qualitative research performed among 33 medical students in an elective class where they were exposed to different teaching strategies and the results of the study performed that stress factors identified that lack of time, heavy syllabus and class content, frequent tests, demanding much and too much of extracurricular activities and family problems. The students responded that they adopted different coping strategies to reduce their stress, indulged them in leisure activities like sporting, watching movies, reading literature etc [31].

5. CONCLUSION

The present study found that the majority of participants who underwent regular education experienced stress only occasionally compared to express and online mode of education and they had the habit of taking anti depressant medicines and listening to music to relieve the

stress. Thus the present study brought to light the stressors faced by the students particularly relating to the type of education they have adopted. Parents, teachers and the educational institutions must take necessary precautions to create a good learning platform for the student population to make them achieve greater heights.

6. IMPLICATIONS OF THE STUDY

The study throws light on the emotional and psychological changes experienced by students of different disciplines and explains the need for stress relieving strategies that has to be adopted by students to combat those stress.

CONSENT AND ETHICAL APPROVAL

As per international standard or university standard guideline participant consent and ethical approval has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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