

## Assessment of anxiety index in 1<sup>st</sup> year BDS students at SDCH Pune

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### Abstract

**Introduction:** Dental education has been recognized as highly demanding & complex training program. Many bright teenagers also face various difficulties during the tenure of their first semester. Most common reasons have been observed are language problem, vast syllabus, admission for dental course against student's wish, coming from protected environment, peer pressure, adjustment problems, home sickness & many more. Some students have the capabilities to cope up with all stressors but many of them land up with some psychological problems like anxiety, depression & so on. Anxiety can be defined as a strong and unpleasant feeling of nervousness or distress in response to a feared situation, often accompanied by physiological effects such as nausea, trembling, breathlessness, sweating and palpitation. Increased anxiety level can hamper the performance & learning ability in dental students.

**Aims and Objectives:** The objective of the study was to assess & evaluate the anxiety index in 1st year BDS students at SDCH, Pune. Also, to plan accordingly various programs for the management of anxiety by conducting workshops on Yoga, Meditation & newer relaxation techniques for the students prone for anxiety.

**Materials and Methods:** 1] Total 94 students were taken from first year BDS as subject; 2] Approval from Institutional ethical committee has been taken; 3] Written consent has been taken from every student in English & vernacular language (Marathi); 4] assessment of anxiety index (Zung scale) was done by giving validated questionnaires.

**Results:** Evaluation was done using appropriate statistical methods. It has been observed in present study that 30% of students were showing the symptoms of moderate to severe type of anxiety, while 70% have never or only some time shown signs of anxiety.

**Conclusion:** After comparing with other studies and going through various personality development parameters, we came to a conclusion that positive parental upbringing, good financial support from the family, friendly approach of the teacher towards students might have uplifted the confidence level of the student & helped them to cope up with new environment.

**Keywords:** Anxiety, Depression, Dental, Stress.

### Introduction

It has been observed that as compared to other professionals, health professionals have high level of anxiety. At the end of 1950, Cattell & Schie<sup>1</sup> made the first attempt to distinguish between trait anxiety & state anxiety. According to them anxiety is characterized by the conscious perception of feeling, apprehension & by a high level of arousal of autonomic nervous system. Anxiety is also defined as a state of intense apprehension or worry often accompanied by physical symptoms such as shaking, intense feelings in the gut, etc common in mental illness or after a very distressing experience.

The possible reasons for the stress in dentistry could be scheduling pressures, surgical interventions, managing uncooperative patients, highly skillful & technical type of work, financial pressures, and pressure from parents for opting specific type of course. These persistent stressors can lead to psychological disturbances in the form of depression, anxiety & emotional exhaustion, loss of self-confidence, hostility, unprofessional conduct & burnout.

### Materials and Methods

The project was decided & designed in the 14<sup>th</sup> advanced course in Health Sciences Education

Technology on 26<sup>th</sup> July 2015 at the department of Medical Education & technology MUHS Regional Centre Aundh Pune.

The project protocol was submitted to the Principal SDCH Pune & Head of the Department & approval has been taken to conduct the study on the first year student. Approval from Institutional committee was taken. Total 94 Students from first year BDS were included in the study. (10 Male & 84 Female)

The age group selected was 17 to 19yrs. The purpose & pattern of the study was explained to the volunteers. A written consent was taken from the volunteers in English & vernacular language (Marathi). In this study validated questionnaires (Zung scale for assessment of anxiety Index) were given to the students after one month of their admission in first year. The students were asked to enter their choices based on their severity of symptoms of anxiety. Analysis & evaluation was done by using standard statistical methods.

### Results

Validated ZUNG self-rating questionnaire for anxiety was studied & frequency of positive answers was considered for analysis. All these observations were noted in a tabular form. Sample size of female students was 84

while male were only 10, so gender difference is not to be taken into consideration. Scoring has given depending upon the severity of symptoms as follows

**Score 1:** A little of the time

**Score 2:** Some of the time

**Score 3:** Good part of time

**Score 4:** Most of the time

**Table 1: Result- Q1 to Q6**

S. No.	Questions	Score								Total	
		1		2		3		4			
		No.	%	No.	%	No.	%	No.	%	No.	%
1	I feel more nervous & anxious than usual	43	45.7	37	39.4	6	6.4	8	8.5	94	100
2	I feel afraid for no reason at all	59	62.8	24	25.5	5	5.3	6	6.4	94	100
3	I get upset easily or feel panicky	45	47.9	29	30.9	13	13.8	7	7.4	94	100
4	I feel like I am falling apart & going to pieces	69	73.4	19	20.2	4	4.3	2	2.1	94	100
5	I feel that everything is all right & nothing bad will happen	15	16.0	17	18.1	28	29.8	34	36.2	94	100
6	My arms & legs shake & tremble	73	77.7	15	16.0	4	4.3	2	2.1	94	100

NO: Denotes number of students, %: denotes percentage of students

From Table 1, it seems that only 8.5% students felt more anxious than usual. 69% of students never felt like “I am falling apart & going to pieces”. 36.2% of students seems to be more positive about life most of the time, especially during difficult situation. They felt that everything is all right & nothing bad would happen.

**Table 2: Result - Q7 to Q13**

S. No.	Questions	Score								Total	
		1		2		3		4			
		No.	%	No.	%	No.	%	No.	%	No.	%
7	I am bothered by headaches neck & back pain	56	59.6	23	24.5	6	6.4	9	9.6	94	100
8	I feel weak & get tired easily	53	56.4	25	26.5	8	8.5	8	8.5	94	100
9	I feel calm & can sit still easily	29	30.9	18	19.1	29	30.9	18	19.1	94	100
10	I can feel my heart beating fast	64	68.1	22	23.4	4	4.3	4	4.3	94	100
11	I am bothered by busy spells	75	79.8	15	16	3	3.2	1	1.1	94	100
12	I have fainting spells or feel like it	87	92.6	3	3.2	1	1.1	3	3.2	94	100
13	I can breathe in an out easily	17	18.1	3	3.2	8	8.5	66	70.2	94	100

9.6% students felt that most of the time they are having headache & neck & back pain. In these cases other medical alignments might be the reason for headache & back pain, ie Sinusitis, Hypoglycemic headache which is very common in student life. 79.8% students felt that they are least bothered by busy spells. It shows that today’s generation is more active & enthusiastic about their new course which they have taken as their career option.

**Table 3: Result Q-14 to Q-20**

S. No.	Question	Score								Total	
		1		2		3		4			
		No.	%	No.	%	No.	%	No.	%	No.	%
14	I get feeling of numbness & tingling in my fingers & toes	76	80.9	8	8.5	6	6.3	4	4.3	94	100
15	I am bothered by stomach aches or indigestion	79	84.0	9	9.6	4	4.3	2	2.1	94	100
16	I have to empty my bladder often	70	74.5	12	12.8	6	6.4	6	6.4	94	100
17	My hands are usually dry & warm	56	59.6	3	3.2	9	9.6	26	27.7	94	100
18	My face gets hot & blushes	62	66.0	15	16	8	8.5	9	9.6	94	100
19	I fall asleep easily & get good night’s sleep	20	21.3	11	11.7	15	16	48	51.1	94	100
20	I have nightmares	71	75.5	13	13.8	7	7.4	3	3.2	94	100

80.9% students never felt tingling & numbness in their fingers & toes. Only 2.1% students were bothered by

stomach ache & indigestion. 74.5 % Students never feels to empty their bladder often. 51.5 % of students fall

asleep easily & get good night sleep. From the above results it was observed that approximately 60 to 70% students had only little or for only some time anxiety.

## Discussion

Till now several studies have been conducted on the anxiety index of the dental students, all these studies have shown that the anxiety index is very high in first year of any medical course in comparison to other years. The reasons might be, new atmosphere, separation from the family, adjustment in the hostel & academic pressure. Lloyd, Camille's<sup>2</sup> in their studies had observed the psychiatric symptomatology in dental students & compared it with general population survey. They concluded that dental students evidenced considerably higher psychiatric symptoms than those previously reported in a general population. While Mas Suryalis Ahmed,<sup>3</sup> Mohd Mazharul got 100% prevalence of the stress among dental students during years 2 to 5. The most common cause of stress among these students was academic concerns, patient management & clinical performance. In Saudi Arabia, a number of studies have assessed levels of stress among dental students and related stressors, and the most commonly cited stressors are gender, year of study, marital status, first choice of admission, financial problems, living arrangement, examinations and grades, workload, and patients.<sup>4</sup> Newton et al<sup>5</sup> found in their cross sectional studies that dental students in London covering the 5 year curriculum program, the first two year of the program were the most stressful. According to Tangade P S, Mathur A,<sup>6</sup> factors leading to anxiety are different from year to year. First year students have different set of problems like difficulty in understanding new syllabus, adjustment with new environment. In hostel they have to compromise at various levels like food, cleanliness, sharing the room. While third & fourth year students have different set of problems like project completion, busy schedule, ongoing activities, examination fear, and viva fear & performance anxiety in clinical demonstration. In previous studies, student's first choice for field of study was also a significant predictor of their stress level, students whose first choice was dentistry have less stress as compare the others whose interest of study were different.<sup>7</sup> Some studies are conducted on dental students to identify the sources of stress in dental education. The study found that fourth year & graduating students are least bothered about the academic overload, clinical training, & course failing, but they were significantly insecure about their professional future. On the contrary the first year students appeared to be concerned about the inadequate time for relaxation. However they were least concerned about the completing academic requirements compared with their senior colleague.<sup>8</sup> The study conducted by Jalaladdin,<sup>9</sup> on 105 students in Iran found that the most stressful factor in preclinical courses found to be 'Examination' while in 2<sup>nd</sup> & 3<sup>rd</sup> year the stressful factors are "Teaching Methods" & "Attitude of the staff"

respectively. Surgiura et al,<sup>10</sup> concluded the level of stress was lower among students who engaged in regular exercise, which helped them to develop as an individual with sound mind & body. Elena & Carlos<sup>11</sup> in their studies analyzed that there is variation in anxiety levels over the different years. They observed that anxiety in the third year student was higher than the first year student. While in the fourth year the reasons for anxiety are different like clinical exposure, project submission, presentations, thought of failure in the examination. As per Harikiran<sup>12</sup> AG, the overall stressful factors for students are examination, difficulty in managing difficult cases, lack of patient cooperation, class workload, completing clinical requirements, while personal health, difficulty in making friends, staying with roommates, narcotic substance dependencies were least commonly reported to be stressful.

In present study it is found that in first year student 70 to 80 % of students scored 1 & 2 in the anxiety scale questionnaire indicating the level of anxiety on the lower side. These results show that there is change in scenario now, the reasons of low anxiety in first year student could be their well-educated background (some from medical background also), good financial support from the family, effective parenting & efforts taken at the Institutional level for overall psychological & emotional development of the student. All these factors help students to improve their confidence level & making them more adaptive. Another contributing factor might be that most of the students completing their primary & higher school education from CBSE & ICSC board, where the academic curriculum is much more supportive for further professional education as well the extracurricular activities make them efficient to survive in the competitive environment needed for further studies.

Considering the present social cultural atmosphere, most of the students are coming from nuclear families, where single child doesn't have opportunities to socialize much, while in hostel & college environment they are more excited & enjoying this new opportunity of socializing in the peer group.

At the Institutional level much attention is being paid for overall psychological & physical wellbeing of the student by giving professional training to the teaching & non-teaching staff, so as to make college atmosphere homely & comfortable. Different committees are now established like student counseling unit, mentorship, special grievance committee for female students, anti-ragging committee, which has proven instrumental in bringing the gap & improving one on one communication with the student. The student-to-instructor ratio could also be reduced to promote more active student involvement. Many institutions have started taking feedbacks from their stakeholders specially students, parents & patients, which proved to be miraculous in overall development of Institution. The members of these different committees interacting with students & sorting out their day to day problems. There

is direct communication from the institute to the parents, where parents remained informed all the time about their ward's academic & personal development. Additionally, students are getting trained to foster emotional intelligence and organizational and time-management skills. From such trainings, students started developing their communication skills in order to facilitate interactions with faculty and administrators.<sup>13</sup>

### Conclusion

From the present studies, we can conclude that in today's scenario the anxiety levels in the first year BDS student is comparatively low as compared to the previous studies. By analyzing various factors, we can conclude that parenting skills, upbringing of the student, good educational facilities might have played tremendous role in developing confidence level in the students. Different committees are continuously working for the overall development of students, whether it's related to the education or extracurricular activities.

**Limitations:** We have good experience while collecting our data. Students had shown enthusiasm about the study. This Study helped us to develop good teacher- student relationship. As we have less number of males as compared to female, so unable to compare gender difference. Due to time constrain we were unable to collect data from second year, third & fourth year student. As results are collected from single private college, we can say that we might get different results in different Institute.

**Conflicts of Interest:** Author has no conflicts of interest to declare.

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