



# Stress during transition from preclinical to clinical practice in dental students

**Dr. Ashwini Biradar, Kamble Divya, Kamble Govind, Barure Shradha, Birajdar Shilpashri, Sonali Suryawanshi.**

## CONTRIBUTORS

Head of Department, Reader, Department of Public Health Dentistry, Maharashtra Institute of Dental Science and Research, Latur, Maharashtra, India; Intern, Maharashtra Institute of Dental Science and Research, Latur, Maharashtra, India; Intern, Maharashtra Institute of Dental Science and Research, Latur, Maharashtra, India; Intern, Maharashtra Institute of Dental Science and Research, Latur, Maharashtra, India; Intern, Maharashtra Institute of Dental Science and Research, Latur, Maharashtra, India: “Intern, Maharashtra Institute of Dental Science and Research, Latur, Maharashtra, India

## ABSTRACT

**Introduction:** The transition from pre-clinical to clinical dental practice is with several challenges which may have different impacts on students' well-being and learning experiences. this transition phase has also been suggested to be a source of stress and anxiety among dental students. This study aimed to examine the stress of the dental students about transitioning from pre-clinical to clinical studies. **Aim :** The aim of this study is to adopt a qualitative research methods approach to understand the perceived stressors during students' clinical transition and provide insights for curriculum planners to enhance learning. This study is a review of the formal transitional periods in dental education considering the most significant points of transition. The challenges of each period of transition are analyzed and strategies for improvement are discussed. **Methods:** A questionnaire of 15 questions was formulated and was uploaded in google form. The questionnaire was randomly circulated to varoius undergraduate dental students who were willing to participate in this study. and the analysis was done to find out stress level amomg the dental students. **Results:** The total of 299 potential participants were emailed & invited to respond to the questionnaire. Most of the participants were 3rd year, 4th year & Interns. A majority of the participants responded that transition phase from preclinical to clinical practice is stressful period in dental education. **Conclusion:** The present study suggested that majority students interviewed herein perceived high levels of stress during the transition from preclinical to clinical practice in dental education .

## INTRODUCTION

Dentistry is a profession of science, craftsmanship and fine engineering. It requires a skillful mindset about how to prepare the theoretical and practical aspects of the subject and a great skill to apply it courteously.[8]

The first 2 years of the BDS are pre-clinical with introduction to the foundations of dental practice and clinical experiences through imitated clinical skills sessions. [1] The final 3 years are clinical years. They are exposed to clinical setting during the 3rd year of BDS. this sudden shift from preclinical to clinical practice without prior orientation is challenging to them. The transition from pre-clinical to clinical dental practice is with several challenges which may have different impacts on students well-being and learning experiences. [2] To ensure smooth transition, its important to understand how these students cross through the challenging processes. Transition from pre-clinical to clinical training has been reported as an exciting phase of learning for students due to changes in condition and responsibilities .[8] However, this transition phase has also been suggested to be a source of stress and anxiety among dental students and this may be related to the perceptions of preparedness for clinical training . [4] Difficulties concerning the transition from learning in an educational environment to learning in a workplace environment are not unique to dental education. During preclinical training, students learn in an environment where the main focus is on student learning, whereas in a clinical environment, the main focus is on patient care. In preclinics the main focus is on therotical based knowledge but in clinical phase it is on application of aquired knowledge in live patient. Students look forward to their clinical training period, and real patient contacts motivate them to learn. [5]

The transition period is profoundly stressful for a undergraduate who has just entered clinical exercise because of varied reasons such as the differences in the clinical environment, the need to adopt new learning demonstrations , the good communication with patient and to meet patient expectations. That stress can be inhibitive to learning .This is why preclinical training using dummy models is beneficial to improve understanding of the students which helps in a smooth transition from preclinical to clinical postings. On the other hand, apart from a lack of knowledge, the reasonably very low confidence in dental students will negatively reflect on the nature of treatment give to the patients.[2,3]

Students need to adjust to a new environment, and are often unknown about what is expected of them or their role . In addition, students experience an increased workload because of long working hours and they need to adjust to the work routine in the dental profession. Working and learning in the clinical environment throughout different stages of education and professional development involves recurrent transitions where students need to manage not only shifting or increasing complexity of clinical work, but also relationships with new people in the workplace. Difficulty with time management and insufficient study time appear as important issues during clinical posting. Also perceived unpreparedness in knowledge and skills application to real patient.[2,3][7,8]

Difficulties encountered in initial clinical practice such as proper adjustment of chair position, Isolation and sterilization protocol, to do accurate diagnosis of disease ,injecting Local anesthesia , Follow proper treatment plan, work quota completion and along with all clinical work maintain balance with study hours.[8] This study is designed to address concerns about what difficulties

students perceive during their gaining of actual knowledge and remolding it into clinical knowledge to increase their skill . This study aimed to examine the stress of the dental students about transitioning from pre-clinical to clinical studies. Feedback from dental undergraduate students to evaluate a students response to the transition from preclinical to clinical postings.[2]

## **MATERIALS AND METHODOLOGY :**

A cross sectional survey was done to determine the stress among dental students going from preclinical to clinical postings in various dental colleges. A questionnaire of 15 questions was formulated and was uploaded in google form. The questionnaire was randomly circulated to varoius undergraduate dental students who were willing to participate in this study and honestly answer all the questions. The questions was simple, easy and were in english language. The students who didnt respond to questions appropriately were excluded from study. The researchers distributed the questionnaire to the dental students by using google document forms and requested them to read the questions carefully answer all the questions accurately and honestly. The collected data were confidential. Discriptive analysis was done to find out stress level among the dental students and Pie chart and Table of the same were obtained and analysed.

### **Ethical Approval:**

The Institutional Ethics Committee of the Maharashtra Institute of Dental Science and Research, Latur under Registration No. MIDSR/STU/IEC-110/837/2022 approved the study.

**Informed Consent :** The participants were informed that their participation in the study's questionnaire was entirely on a voluntary basis before they responded. The formal informed consent was waived by the Institutional Ethics Committee.

This study employed a method design using a survey, and questionnaire among dental students who had entered their first clinical year of study.

## **RESULTS**

From total of 299 participants everyone completed the questionnaire. In which 74.2% female participated in the study and 25.8% male participated in the study.

Question 1 shown that percentage analysis of students thinking before going from preclinical to clinical practice.

Table.no. 1

Question (thinking before clinical practice.)	Responses Total 299	Percentage
Excitement	135	45.2%
Nervousness	92	30.8%
Fear	36	12%
Anxiety	36	12%

Question 2 shown that how many dental students feels difficulty after joining clinical postings. In which 180 (60.2%) students repondend yes and 119 (39.8%) students responded No.

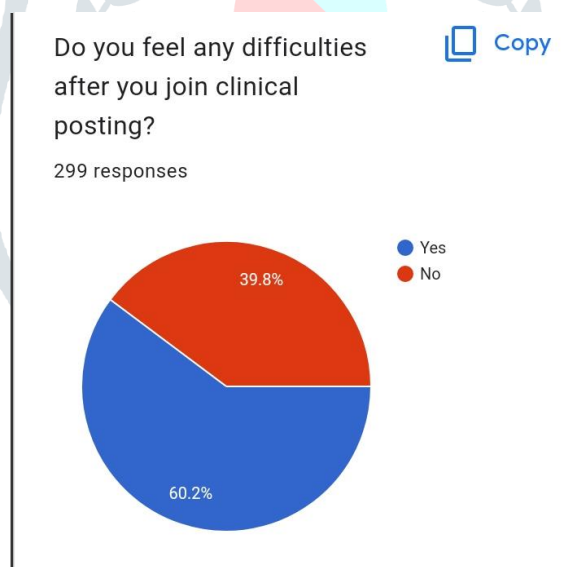


Table 2: Percentage analysis of "yes or no responses to questions of " Stress during ".transition from preclinical to clinical practice in dental students

Table. 2

Question	Total Response	Yes	No
question 3 Is there any difficulties faced in theoretical and practical based knowledge to apply in clinical practice?	299	196(65.6%)	103(34.3%)
question 8 If you have experienced any difference between performing procedures on working models and on patients?	299	199(66.6%)	100(33.4%)
question 10 Is fear of being criticized in front of your patient by supervisor is leading to increase the stress?	299	194(64.9%)	105(35%)
question 14 Is counseling is necessary to relieve stress?	299	207(69.2%)	92(30.8%)

Question 4 shown that how many dental students feels difficulty on learning new demonstrated procedures.

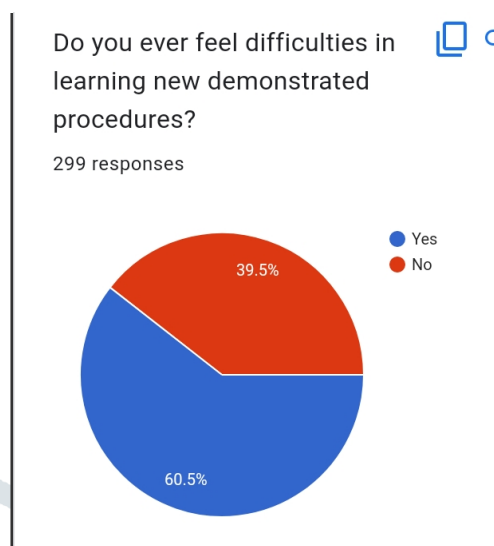


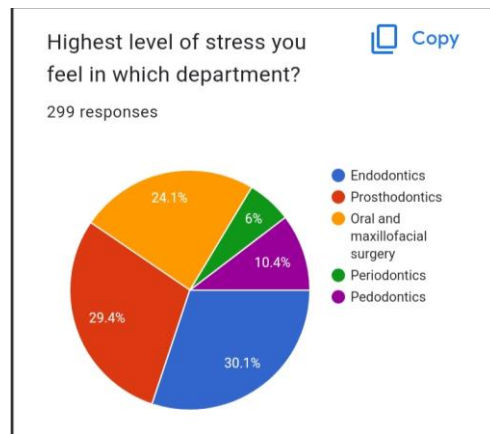
Table no. 3 shown that what kind of troubles students faced in clinical practice.

Table. 3

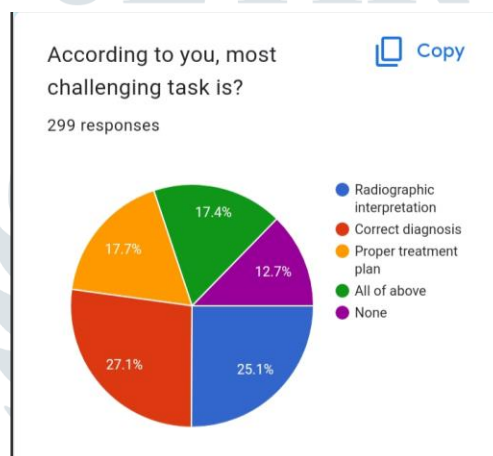
Question 5 (Troubles in clinical practice)	Response total 299	Percentage
Lack of confidence	124	41.5%
Fear of failure	76	25.4%
Interaction with patients	56	18%
None	43	14%

Question . 6 shown percentage analysis of how many students feels highest stress in which department. In which 30.1% responded that highest level of stress is inendodontics department , 24.9 % responded that highest stess inprosthodontics department , 24.1 % responded that highest stress in oraland maxillofacial surgery department , 10.4 % responded in Periodonticsdepartment and 6% feels in Pedodontics department.





Question. 7 shown that what is the challenging task in clinical practice. In which 81 (27.1%) participants response was for to do correct diagnosis is most challenging task, 75 (25.1%) participants response is for doing correct radiographic interpretations is challenging task, 53 (17.7%) participants responded equally for following proper treatment plan and All of the above, remaining 38 (12.7%) participants responded none about challenging task.



Question 9 shown that if yes then what kind of. In which 86 (28.8%) participants responded for difference is in operator and patients chair position, 51 (17.1%) participants feel difference in sterilization procedure, 63 (21.1%) participants responded for difference in isolation in working field and 21.4% participants responded for all the above differences and 35 (11.7%) participants responded for none.

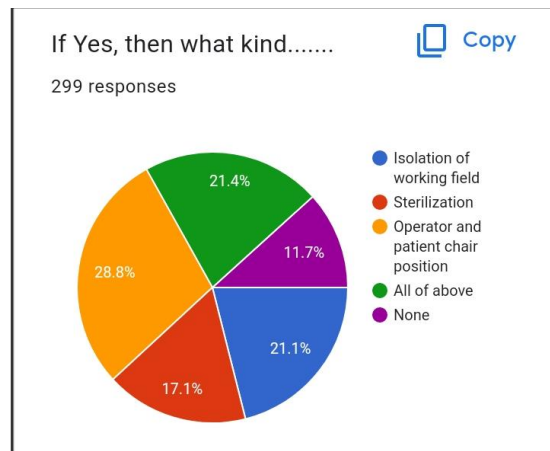


Table no.4 shown that doing which treatment they feel maximum stress.

table. 4

Question 11( maximum stress feel during)	Response total 299	percentage
Pulp exposure	99	33.1%
Administration of LA	71	23.7%
Impression	54	18.1
All	37	12.4%
None	30	10%

Question 12 shown that which treatment they feel more comfortable/confident to perform on patient. In which 31.4 % students responded extraction of teeth, 30.4% students responded scaling and root planing, 18.7% students responded restoration of teeth, 11.7% students responded complete denture, and 7.7% students responded none.

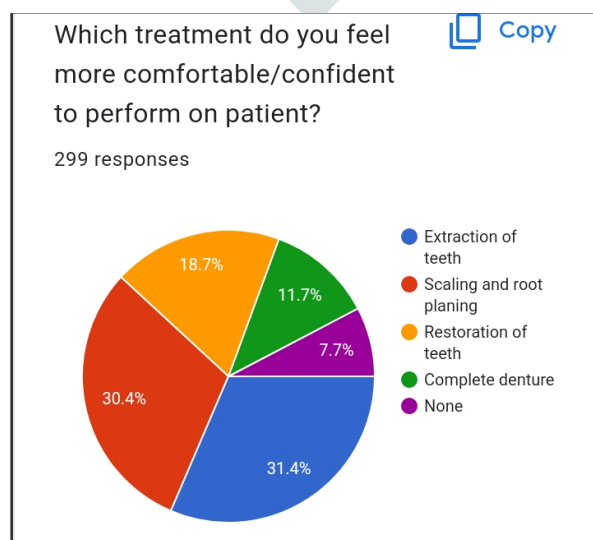
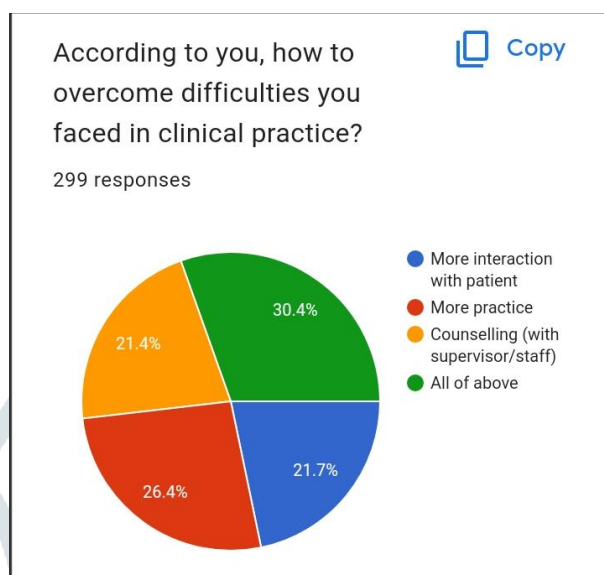




Table no. 13 shown that what are the ways to overcome difficulties they experienced in clinical practice. In which 79(26.4%) participants responded more practice, 65(21.7%) participants responded more interaction with patients, 64 (21.4%) participants responded counselling with supervisor/staff, 91(30.4%) participants responded all the above are the ways to overcome faced difficulties.



## DISCUSSION:

As per our knowledge, this study was the attempt to examine the stress during transition from preclinical to clinical practice in dental students. The main outcomes of this study are that most participants considered transition period is stressful. Most of the participants reported that they were very excited before going into clinical practice. And majority of participants responded counselling is necessary to overcome the stress.

## CONCLUSION:

The dental students interviewed here having high levels of stress during the transition from preclinical to clinical practice. As the students progressed, they admitted and accepted that the transition was a gradual process and an essential learning curve. These results suggest that introducing stress management education that is counselling into the dental curricula could enhance students' mindset to overcome the stress.

## ACKNOWLEDGEMENT:

The authors would like to thank Dr. Ashwini Biradar for her contribution towards data interpretation and statistical analysis and Kamble Divya, Kamble Govind, Barure Shradha, Birajdar Shilpashri, Sonali S. for their assistance in data collection.

**DECLARATION OF CONFLICTING INTERESTS:**

The researchers declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

The researchers declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

**ETHICAL APPROVAL:**

Ethical approval for this study was obtained from Dr. Komal Harde [lecturer] MIDSR Dental College, Latur

**FUNDING:**

The researchers received no financial support for the research, authorship, and/or publication of this article.

**INFORMED CONSENT:**

The participants were informed that their participation in the study's questionnaire was entirely on a voluntary basis before they responded. The formal informed consent was waived by the Institutional Ethics Committee.

**TRIAL REGISTRATION:****REFERENCES:**

1. Assessing stress and burnout in dental students in a dental institution Avijit Avasthi<sup>1</sup>, Sakshi Sharma Aasdhir<sup>1</sup> Department of Public Health Dentistry, Bhojia Dental College and Hospital, Baddi, Himachal Pradesh, India .Department of Public Health Dentistry, Pacific Dental College and Hospital, Partapura, Udaipur, Rajasthan, India Correspondence Address: Avijit Avasthi Department of Public Health Dentistry, Bhojia Dental College and Hospital, Baddi - 173 205, Himachal Pradesh, India .
2. Assessment of perceived stress levels and its sources among indian students in Dental Colleges of Odisha - A cross-sectional study Sonali Sarkar, Dharendra Kumar Singh, Riddhi Awasthi Department of Periodontology and Oral Implantology, Kalinga Institute of Dental Sciences -KIIT University, Bhubaneswar, Odisha, India
3. Stress amongst dental students in the transition from preclinical training to clinical training: A qualitative study Franciele de Souza Ferreira et al. Eur J Dent Educ. 2022
4. Psychosocial impact, perceived stress and learning effect in undergraduate dental students during transition from pre-clinical to clinical education April 2018 European Journal Of Dental Education 22(Suppl 1) DOI:10.1111/eje.123525.

- 5 . Students— A Qualitative Studyby Rod Moore \*ORCID,Simone Molsing,Nicola Meyer andMatilde ScheplerInstitute of Dentistry and Oral Health Sciences, Aarhus University, 8000Aarhus C, Denmark
6. The Effect of Stress on Clinical and Preclinical Dental Students'Performance at King Abdulaziz UniversityAlbandar As, Abdel Alim Hm, +1 author Basulay NhPublished 2018EducationInternational journal of dentistry and oral health.
7. Attitude and perception of dental students ontransition from preclinical to clinical trainingAbhishek NaramGraduate student Saveetha dental college Saveetha universityChennaiDr.Delphine Priscilla Antony Department of conservative dentistrySaveetha dental college Saveetha university Chennai.
8. Transition from preclinicals to clinicals: Difficulties faced bystudents Dr. A Vinita Mary, Dr. R Kesavan, Dr. Saranya R, Dr. SathishA and Dr. Shalini S
9. the University of the Western CapeVJ WilsonI; CA RaynerII; NA GordonIII; AB ShaikhIV; K CrombieV; SYasin-HarnekarVI.
10. Effect of perceived stress on student performance in dentalschool AE Sanders

