

Medical Student Syndrome in Dental Students

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ABSTRACT

Aim: To identify the presence of Medical Student Syndrome in dental students of Lahore compared to non-dental students

Method: This cross-sectional study was conducted in Lahore (Aug 2019 to Nov 2020). A structured questionnaire was adopted, modified and distributed amongst university going dental and non-dental students of various universities in Lahore. The sample selection was done using the cluster and consecutive sampling technique.

Results: When asked about worrying too much about being seriously ill, 158(56.8%) of the respondents agreed with the statement. Similarly, when asked about being aware of the sensations occurring in the body, 211(75.8%) participants stated that they were aware of the sensations and critically analyzed them. Amongst the students, 149(53.6%) agreed with the statement that they frequently checked their bodies for signs and symptoms of disease only 62(22.3%) disagreed with the statement and the rest were neutral.

Conclusion: To conclude, the Medical Student Syndrome as a separate entity amongst dental students cannot be established as a mental health issue based on the results of this study. However, the presence of hypochondriac behavior amongst the students' needs to be further evaluated in Lahore.

Keywords: Non-dental students, Dental Students, Medical Student Syndrome, Mental Health

INTRODUCTION

Medical Student Syndrome (MSS) is a specific kind of hypochondriasis in which the students studying various diseases assume that they are suffering from the same disease.¹ This is primarily caused by the increased stress level of the student and misinterpretation of their own symptoms. This syndrome is associated with lack of diagnosis from a medical practitioner and is usually a diagnosis of exclusion.² The problem usually persists even after reassurance from their doctors.³ Recent evidence suggests that a medical institute introduces the student to new stresses which can be due to new clinical experiences, increased workload and the stress of examination. This stress can lead to increased physical sensations by autonomic stimulation which can be misinterpreted as symptoms of a disease specifically pain.⁴ During this time the students are also learning about new diseases and examining the patients with similar diseases. Some studies attribute the combination of both of these concurrently occurring processes to be the major cause of development of MSS.^{5,6} But these studies do not have a very strong evidence-based justifications.

Recent studies show that MSS is not very prevalent now a days but previous studies stated that it was a common occurrence. The previous studies might have been not so authentic because of their use of an uncontrolled participant selection criteria.^{7,8} For example, Howes et al³ stated that the prevalence of MSS was 70% in the medical students which is far more than 5- 30% calculated by Weck et al⁵ in a recent study. In a similar study conducted by Altaghafi et al⁹ showed that there is no significant statistical relationship between the prevalence of MSS in medical and non-medical students. Similarly, a study conducted by Waterman and Weinman conclude that there is no difference in the level of hypochondriasis in medical and non-medical students¹⁰.

There have been various studies in Pakistan that encompass the prevalence of MSS in medical students. These studies show that there is a significant level of hypochondriasis in medical students in Pakistan. These studies are conducted amongst the medical student.¹¹ The aim of our study was to identify the presence of Medical Student Syndrome in dental students of Lahore compared to non-dental students.

MATERIALS AND METHODOLOGY

Approval was taken from the Ethics and Research Committee of the University College of Dentistry (Ref: UCD/ERCA/19/04). This cross-sectional study was conducted in Lahore (Aug 2019 to Nov 2020). A structured questionnaire was adopted, modified and distributed amongst university going dental and non-dental students of various universities in Lahore. The sample selection was done using the cluster and consecutive sampling technique.

Inclusion Criteria for the participants were willing students who studied at universities of Lahore in either dental field or others including but not restricted to engineering, law, accounting and others.

The excluded candidates were students who were studying medical fields other than dentistry and students not willing to participate. The participants were selected using the snowball sampling technique, the questionnaire was distributed amongst various students in different departments and universities and Lahore and they were asked to forward the questionnaire to their peers. The process was repeated until the desired sample size was achieved.

The questionnaire was designed by partially modifying the questionnaire used by Altaghafi et al⁹ in 2018 to include the current trends and knowledge of students in Pakistan. The questionnaire comprises of 24 questions, from which 7 were regarding the demographic details and

17 questions were asked to assess the medical student syndrome prevalence.

The subjects were asked to respond to each item according to the response format provided in the questionnaire. No identifiable data like name or email address was obtained from the participants to keep their confidentiality. The consent was taken from the participants in the questionnaire in written form.

Sample Size was calculated using OpenEpi calculator online. Sample size was of 250 with 80% confidence interval, 5% margin of error and 51% population of dental students with tendencies pointing towards medical student syndrome.⁹ The total collected questionnaires were 289 with 11 incorrectly filled questionnaires. The total included responses were 278.

The data was compiled and analyzed using SPSS version 25. As descriptive statistics, frequencies and percentages were calculated. As inferential statistics, Pearson chi-square test was used to compare the scores of the samples with year of practice of general dentists. The P-value ≤ 0.05 was considered statistically significant.

RESULTS

The participants who took part in the study included 95 (34.2%) males and 183 (65.8%) females. Age of the respondents ranged from 19 to 33 with a mean age of 24.6 years. Forty-six (16.6%) of the participants belonged to the

low socioeconomic status, 167 (60.1%) to the middle socioeconomic status and 42 (15.2%) belonged to the high socioeconomic class with 25 (9%) unaware to the answer. Most of the participants 217 (78.2%) were scoring more 60% in their accumulative examination results, 33 (11.8%) were between 50 and 60 whereas the rest 28(10%) were scoring below 50%. Amongst the participants, 157(56.5%) were dental students whereas 120(43.5%) were non-dental students.

When asked about worrying too much about being seriously ill, 158(56.8%) of the respondents agreed with the statement. Similarly, when asked about being aware of the sensations occurring in the body, 211(75.8%) participants stated that they were aware of the sensations and critically analyzed them. Amongst the students, 149(53.6%) agreed with the statement that they frequently checked their bodies for signs and symptoms of disease only 62(22.3%) disagreed with the statement and the rest were neutral. 185(66.5%) of the participants agreed that they sometimes checked their immediate family members as well for signs and symptoms of diseases, 58(20.9%) were neutral and 35(12.6%) disagreed with the statement.

The questions mentioned in Figure 1 have been analyzed with Pearson chi-square test with p value less than 0.05.

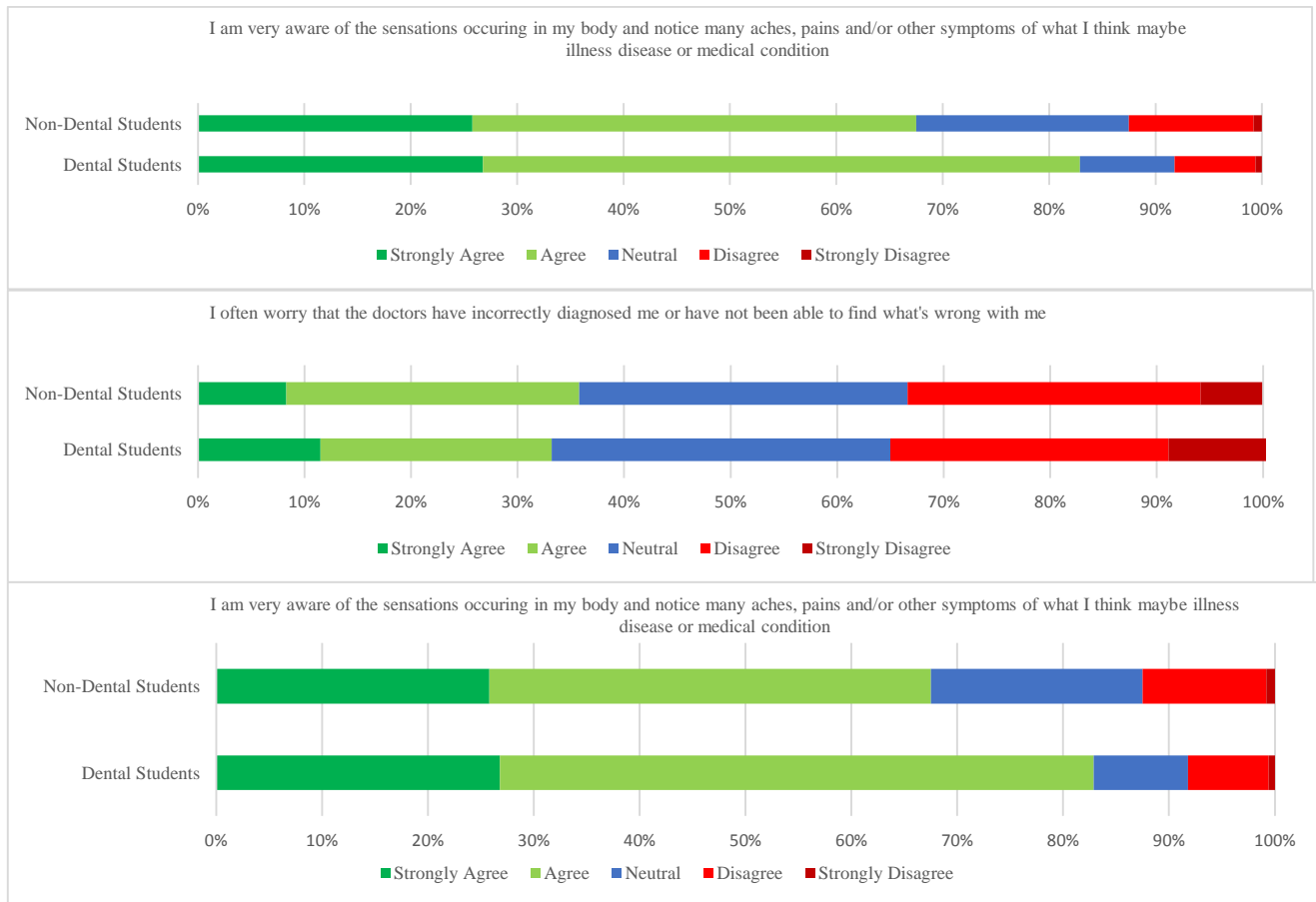


Figure 1: Concerns about symptoms and true diagnosis

Table 1: Concerns about health

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I spend a lot of time talking to friends and family about my health concerns	21 (7.6%)	55 (19.8%)	98 (35.3%)	81 (29.1%)	23 (8.3%)
I often ask family/friends to reassure me that I do not have any disease	17 (6.1%)	50 (18%)	68 (24.5%)	101 (36.3%)	42 (15.2%)
I avoid certain people, places, things or activities for fear of diseases or illnesses	38 (13.7%)	89 (32%)	58 (20.9%)	68 (24.5%)	25 (9.0%)
I go out of my way to view TV shows, news articles, movies and/or internet reports with medical themes	14 (5.0%)	71 (25.5%)	88 (31.7%)	89 (32.0%)	16 (5.8%)

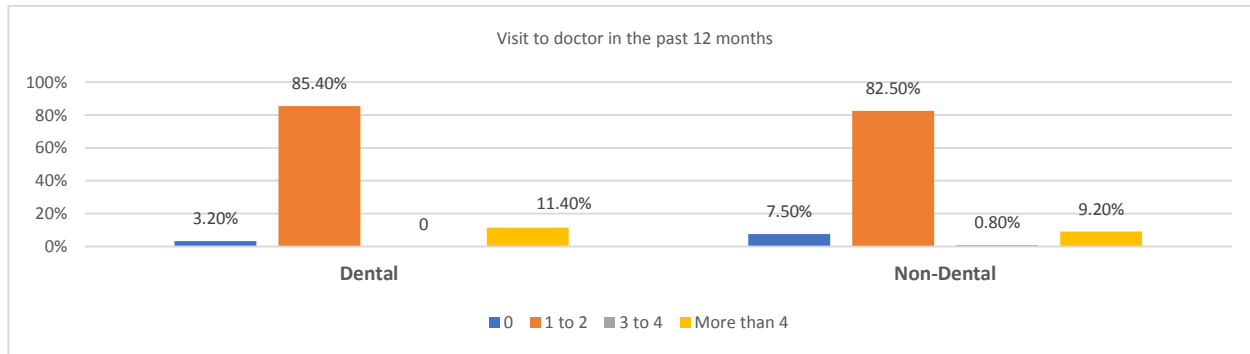


Figure 2: Number of visits to Doctor

DISCUSSION

In this study dental and non-dental students were asked questions indicating medical student syndrome to see the difference in the thinking of these students. There has been no study as of yet, which describes the prevalence of medical student syndrome in the dental students. The studies conducted on medical students have yet to establish the presence of this syndrome in the medical students.^{2, 3, 11} Similarly in our study there is not a lot of evidence that supports the difference in practices and thinking of the dental and non-dental students when it comes to behavior. Both of the groups seem to have similar thinking when it comes to calling on doctors, watching medical themed content on purpose, being worried about their health and constantly asking family and friends about it.

There might be multiple reasons for persistence of the presence of MSS. This could be due to the exaggeration mentioned in the earlier studies where the results were overgeneralized.¹² Another reason that might be affecting the thinking of the dental students is that they study about the disease and are in contact with the teachers who specialize in the subject which can lead them to be a little more anxious but not as much to be considered a syndrome.¹³ The study conducted by Watermann et al. also shows similar results that the medical students do not show more hypochondriac behavior as compared to non-medical students as is the case with our study. Both medical and non-medical students in their study and dental and non-dental students in our study made similar number of visits to the doctor in the same span of time.¹⁰

A study conducted in Taif, Saudi Arabia shows some relationship between medical students and hypochondriasis affecting them more than non-medical students.⁹ But even in their study the, non-medical students

were more prone to MSS as compared to medical students in their clinical years. Similarly, non-medical students contact doctors a lot more than medical students regarding their health. In our study the dental and non-dental students both went to the doctor for a similar number of times. Moreover, their concerns regarding the doctors' recommendations were also not very different. With these results it seems unnecessary to deem MSS as an established phenomenon in the dental students in Lahore. However, prevalence of hypochondriasis in the students in general can be something to look into.¹⁴

To conclude, the Medical Student Syndrome as a separate entity amongst dental students cannot be established as a mental health issue based on the results of this study. However, the presence of hypochondriac behavior amongst the students needs to be further evaluated in Lahore.

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