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Prevalence of Medical Students` Syndrome among College of Medicine Students, Majmaah University, Majmaah, KSA 2020-2021

Salah A Abdelrahim[1*], Ashraf A Deyab[1], Mohammed Abdul Lateef Junaid[1], Ahmed Hussain A Asiree[2], Talal Mohammed A Alonazi[2], Khalid Fahad K Alotaibi[2], Abdulrahman Naqaa Almutairi[2]

[1]Department of Pathology, College of Medicine, Majmaah University, Al Majmaah, Kingdom of Saudi Arabia
[2]College of Medicine, Majmaah University, Al Majmaah, Kingdom of Saudi Arabia

ABSTRACT

Background: Medical Students Syndrome (MSS) is described as medical students having health-related concern while studying a specific condition because their symptoms were incorrectly linked to the disease under study. This is a type of acute hypochondriasis that is more prevalent among medical students than among other college students.

Objective: The purpose of this study was to investigate the prevalence of medical students' syndrome among students at College of Medicine, Majmaah University, Saudi Arabia, and its relationship to academic achievement, social factors, and the students' year of study.

Methods: An institutional-based observational, cross-sectional study was conducted. Students from both the male and female parts of the MBBS program were included in the study. Data was collected using a pre-tested questionnaire. SPSS software version 24 was used to enter and analyze the data.

Results: This study included 216 male and female medical students, with male students accounting for 70.4% of the total. The bulk of those who took part were in their third year or higher (66.2%). Only 48.6% of the participants in our survey were aware of medical students' syndrome. However, while reading about an illness, 78.2% of participants reported feeling symptoms or signs of the condition. In comparison to female medical students, we discovered that male medical students have a greater rate of MSS (65.6%).

Conclusion: There was a high prevalence of Medical student syndrome among students at college of medicine, Majmaah University. It is highly recommended that students receive counseling and support through a mentorship program.

Key words: Medical student syndrome, Majmaah University

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Corresponding author: Salah A Abdelrahim

e-mail✉: s.abdelrahim@mu.edu.sa

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INTRODUCTION

Medical students' syndrome (MSS) is characterized as medical students having health-related concern when studying a specific disease because their symptoms were incorrectly linked to the disease under study. [1] Medical students are exposed to a large amount of clinical knowledge about many diseases, which may lead to a search for symptoms that impact them, anxiety about having a major illness, or exaggeration of small symptoms, all of which can lead to a self-diagnosis of a specific somatic disease [2]. It's a type of acute hypochondriasis, a psychiatric disorder characterized by a preoccupation with worries of having, or the thought of having, a dangerous disease based on misunderstanding of body symptoms despite proper medical diagnosis and reassurance. Hypochondriasis is different from 'Nosophobia', which is the extreme or irrational fear of developing or having a specific disease "[3].

Medical students' syndrome is more common among medical students compared to other college students [1], while others studies found that medical student syndrome is not more likely in medical students compared to other students [4]. Medical school is a stressful experience that has been linked to unfavorable physical and mental health outcomes as well as poor academic performance among medical students [5]. Medical student syndrome is a substantial source of stress for medical students

during their undergraduate career, and it has an impact on their academic performance [6,7].

According to studies, medical schools put students under a lot of psychological stress because of the quantity of work they have to do, the stress of exams, the anxiety connected with new clinical encounters, and the competitive environment [8,9].

Stress is hypothesized to alter symptom detection by increasing physical sensations as a result of autonomic activation, making people more aware of their physical status. Knowledge is also suggested to influence symptom interpretation by encouraging medical students to realize how thin the border between health and illness can be, as well as to re-conceptualize previously ignored symptoms in the context of newly acquired knowledge [10].

Another factor unique to medical students is the intensive clinical and preclinical exposure to medical information. This knowledge is assumed to influence symptom perception through the expectations and sickness beliefs that arise as a result of it, resulting in 'selective attention' to specific physical sensations and locations [11,12].

According to some studies, the medical student syndrome has two components: the first is cognitive, which includes the suspicion that the student has the ailment under investigation, and the second is distress, which includes the fear and concerns caused by the cognitive component [13].

Few studies points out that, the distress component was most prominent in first-year medical students before becoming insignificant in senior year students. The cognitive component, on the other hand, was present in all cohorts as they progressed through medical school [13,14]. The less obvious distress component in medical school's senior years could be explained by the maturity that comes with moving through medical school and a greater understanding of medical information than in previous years [12].

There are numerous publications on MSS in the literature from all over the world, but there are just a few research on MSS in the Majmaah, KSA region, which demonstrated that the prevalence of the medical student's syndrome varies and has an impact on student performance. The goal of this study is to determine the prevalence of medical student syndrome among students at college of medicine, Majmaah University, as well as to understand how it affects students' performance and its relationship to gender, maturity level, and level of medical expertise.

METHODS

An observational, cross-sectional, institutional-based study was conducted to find out the prevalence of medical students syndrome among students of College of Medicine, Majmaah University 2020 – 2021. The study included all students from the male and female sections, registered in five consecutive years of MBBS program.

The research was carried out at Majmaah University's College of Medicine in Al-Majmaah, Saudi Arabia. This location is around 189 kilometers north of Riyadh, Saudi Arabia's capital. The College of Medicine is located on the main campus of the university in Majmaah city. Simple random sampling technique was considered with complete enumeration of all students in the college of medicine, all the students were listed in one list and were numbered according to their academic year.

Data was collected using a pre-tested questionnaire. The data was input and processed using SPSS version 24 software, and statistical analysis was used to determine the prevalence of medical students' syndrome among students. The data was analyzed using descriptive statistics (frequency and standard deviation). For qualitative data, the chi-square test was used to determine group comparisons, with a p value of less than 0.05 was considered significant.

RESULTS

This study included 216 male and female medical students, with male students accounting for 70.4% of the total (Table 1). 66.2% of those who took part were in their third year or higher (Table 1). Only 48.6% of participants in our study were aware of medical student's syndrome (Figure 1).

78.2% of individuals reported feeling symptoms or signs of an illness after reading about it, 31.9% of participants who felt symptoms and signs were explored further, and just 12% of people who experienced symptoms or signs consulted a doctor or psychiatrist and only 2.8% of the individuals took medicine for their symptoms and signs (Table 2).

It was also observed that male students experience symptoms or signs of an illness after reading about it (65.6%) more than female students, and that 70.4% of those who experienced symptoms or signs were in their third year and above (Table 3).

Furthermore, the majority of those who sought a doctor or psychiatrist after experiencing symptoms or signs of an illness after reading about it were in their higher years of study (Table 4). Figure 1 shows that 48.6% of participants were aware of medical student's syndrome, while the remainder was unaware.

DISCUSSION

A total of 216 medical students took part in the research. 70.4% of them were male pupils. The majority of participants were in their third and subsequent years, which could be because they learned more about the

Table 1: Participation according to gender and year of study.

	Year of the study					Gender		Total
	1	2	3	4	5	M	F	
Participant	36	37	63	48	32	152	64	216

Table 2: Determinants of medical student syndrome.

Feeling signs /symptoms when reading about disease		Duration of felt signs/symptoms			Responses to felt signs/ symptoms		Visited doctor with felt signs/symptoms		Taking medications	
Yes	No	Minutes	Hours	Days	Ignore	Investigate	Yes	No	Yes	No
169	47	77	67	72	147	69	26	190	6	210

Table 3: Feeling of signs and symptoms when reading about a disease and year of study and gender.

MSS	Year of study					Gender		Total
	1	2	3	4	5	M	F	
Yes	26	24	46	42	31	111	58	169
NO	10	13	17	5	2	41	6	47
P. Value		0.006				0.004		216

Table 4: Visit a doctor (psychiatrist) and year of study.

Visited a psychiatrist	Year of study					p. Value
	1	2	3	4	5	
Yes	0	2	7	8	9	0.243
No	36	35	56	40	23	
Total	36	37	63	48	32	216

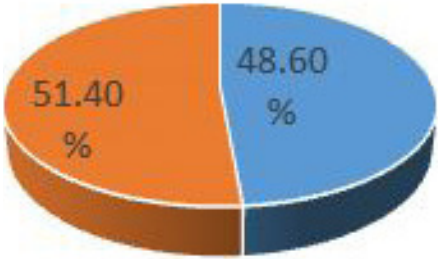

Figure 1: Knowledge of participants about MSS.

patients' conditions and management, these finding were in accordance with previous researches]. Only 48.6% of the medical students who took part in this study were aware of medical student's syndrome, a finding that has previously been reported in the literature [2]. However, majority of participants (78.2%) reported feeling symptoms or signs of a disease when reading about it. Other research in the literature supported our findings, reporting that MMS was found to be prevalent in 70% to 80% of medical students. In contrast to these findings, prior research of medical students in Saudi Arabia found that the overall prevalence of MSS was just 3.4%. Our research highlighted that most of the participated medical students (68.1%) with feeling of symptoms or signs of a disease when reading about it ignored their condition and only 31.9% underwent further investigation. Only 12% of those who had these feelings consulted general practitioner or psychiatrist, and the majority of them were senior level students. The reason for this is that students in these years are more clinically oriented, learning more about disease pathology and patient examinations, whereas students in their first two years have little clinical exposure. Similar findings were observed in previous studies, while few other studies were contradictory to our findings whose observation showed higher percentage in students of initial two years of medical education.

Another significant finding observed in our study was the association between feeling of MSS and gender. We found that male medical students have a greater degree of MSS than female medical students. This finding could be explained by the fact that a larger number of male students participated in this study. Other studies that revealed female predominance contradicted our findings. The feeling of symptoms or signs of an illness when reading about it was found to have a strong relationship with the year of study in our research. We observed that the majority of medical students with these attitudes were in their third and subsequent years of study, and that most research conducted in Saudi Arabia and other countries supported our findings [23, 25]. However, some researchers found a larger percentage of students with MSS in the first two years of medical school and that the percentage decreases as the students get older, these observation were contradicting our findings [14-25].

CONCLUSION

Medical Student Syndrome was prevalent among students at college of medicine, Majmaah University, particularly among male students in their third and fourth years.

RECOMMENDATIONS

Counselling and supporting of medical students through the mentorship program is highly recommended in order to decrease the prevalence rate of Medical Student Syndrome.

We also recommend that future research be carried out which should include a larger study population by allowing students from other universities from other parts of Saudi Arabia to participate. This will aid our understanding of regional disparities and also will provide a more in-depth look at the Medical Student Syndrome across students at various levels of study.

REFERENCES

1. Mahendran S, Jothipriya A. A comparative study on 2nd year syndrome among dental medical and nursing students. Int J Curr Adv Res 2017; 6:2954.
2. Szczurek K, Furgał N, Szczepanek D, et al. "Medical student syndrome"—A myth or a real disease entity? Cross-sectional study of medical students of the medical university of Silesia in Katowice, Poland. Int J Environ Rese Public Health 2021; 18:9884.
3. Okoi NO, Etim JJ. Nosophobia, hypochondriasis, and willingness of people to seek healthcare amidst the COVID-19 pandemic in Calabar Metropolis of Cross River State, Nigeria. Open J Psychiatr Allied Sci 2021; 12:36-42.
4. Collier R. Imagined illnesses can cause real problems for medical students. Can Med Assoc J 2008; 178:820.
5. Waterman LZ, Weinman JA. Medical student syndrome: Fact or fiction? A cross-sectional study. JRSM Open 2014; 5:1–9.
6. Dyrbye L, Shanafelt T. A narrative review on burnout experienced by medical students and residents. Med Educ 2016; 50:132-49.
7. Cecil J, McHale C, Hart J, et al. Behaviour and burnout in medical students. Med Educ Online 2014; 19:25209.
8. Dyrbye LN, Thomas MR, Shanafelt TD. Systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students. J Assoc Am Med Coll 2006; 81:354–373.
9. Sarikaya O, Civaner M, Kalaca S. The anxieties of medical students related to clinical training. Int J Clin Pract 2006; 60:1414–1418.
10. Mechanic D. Social psychologic factors affecting the presentation of bodily complaints. N Engl J Med 1972; 286:1132–1139.
11. Khasar SG, Burkham J, Dina OA, et al. Stress induces a switch of intracellular signaling in sensory neurons in a model of generalized pain. J Neurosci 2008; 28:5721–5730.
12. Janssens T, Verleden G, De Peuter S, et al. Inaccurate perception of asthma symptoms: a cognitive-affective framework and implications for asthma treatment. Clin Psychol Rev 2009; 29:317–327.
13. Iqbal S, Gupta S, Venkatarao E. Stress, anxiety & depression among medical undergraduate students & their sociodemographic correlates. Indian J Med Res 2015; 141:354.
14. Zahid MF, Haque A, Aslam M, et al. Health-related anxiety and hypochondriacal concerns in medical students: A cross-sectional study from Pakistan. Teaching Learning Med 2016; 28:252-259.
15. Azuri J, Ackshota N, Vinker S. Reassuring the medical students' disease-Health related anxiety among medical students. Med Teacher 2010; 32:e270.
16. Hashmi AM, Aftab MA, Naqvi SH, et al. Anxiety and depression in Pakistani medical students: A multicenter study. Health Med 2014; 8: 813-20.
17. Al-Faris E, Irfan F, Van der Vleuten C, et al. The prevalence and correlates of depressive symptoms from an Arabian setting: A wake up call. Med Teacher 2012; 34:S32-S6.
18. Fares J, Al Tabosh H, Saadeddin Z, et al. Stress, burnout and coping strategies in preclinical medical students. Am J Med Sci 2016; 8:75.
19. Hope V, Henderson M. Medical student depression, anxiety and distress outside North America: A systematic review. Med Educ 2014; 48:963-979.
20. Althagafi SS, AlSufyani MH, Shawky OA, et al. The health anxiety in medical students, a comparative study from Taif University: Medical student's syndrome revisited. Br J Med Practitioners 2019; 12.
21. Daud S, Shaikh RZ, Ahmad M, et al. Stress in medical students. Pak J Med Health Sci 2014; 8:503-507.
22. Hojat M, Vergare M, Isenberg G, e al. Underlying construct of empathy, optimism, and burnout in medical students. Intl J Med Edu 2015; 6:12.
23. Sadiq S, Majeed I, Khawar F. Medical student syndrome; the affliction in medical students. Pakistan Armed Forces Med J 2018; 68:389-393.
24. Al-Turki YA, Saggab AT, Alhamidib HA, et al. Prevalence of hypochondriasis among medical students at King Saud University. Eur J Social Behav Sci 2013; 5:995.
25. Thirunavukkarasu A, Dar UF, Wani FA, et al. Medical students' syndrome--a myth or reality? a cross sectional study among medical students of Jouf University, Saudi Arabia. Indian J Public Health Res Develop 2019; 10.