

An Evaluation of the Psychosocial Problems of Medical Students as Compared to Students of other Faculties

B Shivananda Nayak^{1*}, Shamir Mohammed¹, Stefanie Mohammed¹, Samiyah Mohammed¹, John Mohammed¹, Narissa Mohammed¹, Meenakshi Mohan¹, Chelsea Mohan¹ and Pradeep Kumar Sahu²

¹Department of Preclinical Sciences, Faculty of Medical Sciences, The University of the West Indies, Trinidad

²Centre for Medical Education, Faculty of Medical Sciences, The University of the West Indies, Trinidad

Abstract

Background: A medical professional is viewed with great nobility and prestige worldwide. A medical education is perceived as being stressful, and a high level of stress may have a negative effect on cognitive functioning and learning of students in a medical school

Objective: To study the psychosocial problems of medical students as compared to students of other faculties

Methods: The study consisted 400 students (63% females and 37% males) of social sciences, engineering, medical and pharmacy from the well-known university. Questionnaire was used to collect the data to study the psychosocial problems of medical students as compared to students of other faculties. The questions were geared towards obtaining student's personal views on the topic of depression and suicide as well as the use of drugs to cope with the demands of tertiary education.

Results: The data of this study revealed that 48% of the Medical students were under depression which is higher than other students from engineering (31%), pharmacy (23%) and social sciences (20%). It was found that more than 50% of the students from each faculty consuming alcohol. The study showed that the 34% of the medical students were consuming the drugs. Medical students were higher in number thinking about suicide which is significantly higher when compared to engineering, pharmacy and social sciences student.

Conclusion: Medical students have a higher incidence of depression compared to other students. The university should use a mechanism to identify the students with psychosocial issues and address their problems.

Keywords: Psychological effects; Medical; Engineering; Social sciences; Pharmacy

Introduction

A medical professional is viewed with great nobility and prestige worldwide. Being in the field of medical sciences requires each to possess academic excellence, lifelong learning, social and psychological stability, dedication amongst others in order to become a competent medical professional [1]. In order to gain these important skills, a student wholeheartedly makes social compromises, time management, embraces a substantial curriculum and commits to strenuous working hours. With all these demands and sacrifices, a medical education is perceived as being stressful, and a high level of stress may have a negative effect on cognitive functioning and learning of students in a medical school [2]. Some of these negative effects include increased stress levels, poor academic performance, deteriorating self-confidence, increase suicidal thoughts, unhealthy coping mechanisms and irrational behaviors exhibited by students [3-5].

A student with a deteriorating psychosocial aspect is an unhealthy individual which may further lead to mental and physical disorders such as alcoholism, drug abuse, suicide, depression, self-harm, weight loss and other physically observable distress. In a study conducted by Eisenberg et al. [6], A Web-based survey was administered to a random sample at a large public university with a demographic profile similar to the national student population. The estimated prevalence of anxiety disorder was reported as 15.6% for undergraduates and 13.0% for graduate students. Suicidal ideation in the past 4 weeks was reported by 2% of students. Students reporting financial struggles were at higher risk for mental health problems.

The department of Psychiatry, University of Edinburgh described a cross-sectional case control study to measure the prevalence of psychological morbidity in first year medical students and compare it to the prevalence in a randomly selected control group of other

first year students at Edinburgh University. A total of 17% of medical students had symptoms of psychological morbidity which may benefit from treatment and a further 29% of medical students had symptoms of psychological distress which would be expected to remit spontaneously [7]. This suggests that if medical students or doctors, later in their careers, fare badly in terms of mental health then this may well be related to aspects of their lives and is not an intrinsic characteristic.

Youssef [8] explored the prevalence of stress, burnout, and depressive symptoms and associated risk factors among medical students in Trinidad and Tobago, the southernmost Caribbean island. The study concluded that Medical students in Trinidad and Tobago are experiencing high levels of stress with a large proportion suffering from burnout and depressive symptoms and suggested that immediate interventions are necessary to help students cope with the challenges faced during medical school [8]. Researchers found in a systematic review and meta-analysis that, the overall prevalence of depression or depressive symptoms among medical students was 27.2%, and the overall prevalence of suicidal ideation was 11.1% [9]. How depression levels in medical students compare with those in nonmedical undergraduate students and professional students is not clear.

***Corresponding author:** B Shivananda Nayak, Department of Preclinical Sciences, Faculty of Medical Sciences, The University of the West Indies, Trinidad, Tel: 1868-6621873; E-mail: shiv25@gmail.com

Received June 24, 2019; **Accepted** August 16, 2019; **Published** August 23, 2019

Citation: Nayak BS, Mohammed S, Mohammed S, Mohammed S, Mohammed J, et al. (2019) An Evaluation of the Psychosocial Problems of Medical Students as Compared to Students of other Faculties. J Community Med Health Educ 9: 663

Copyright: © 2019 Nayak BS, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Iqbal et al. studied the presence of psychological morbidity in medical undergraduate students and found that significantly large proportion of medical undergraduate students was found to be depressed, anxious and stressed which implies that an area of the students' psychology is being neglected and requires urgent attention [10]. When compared to the general population, medical students tend to have greater degree of psychological morbidity ranging from stress, interpersonal problems and suicidal ideation to psychiatric disorders [11]. Solaiman analysed the presence of stress and the strategies for coping perceived by medical students [12]. Medical students' academic performance and quality of life is affected by many stressors. Examinations are the common source of stress among medical students, however, they are important for evaluating student performance, encourage students to learn and provide feedback to instructors [13].

This study serves to shed some light on the psychosocial effects of the demands of medical school on medical students as compared to students of other faculties. We have designed this study in order to further encourage the understanding of what both medical and non-medical students face at university life. Through this study we want to encourage the university to pay more attention to the psychosocial aspects of their students and provide some suggestions to conquer this growing epidemic.

Methodology

The study consisted 400 students of social sciences, engineering, medical and pharmacy from the well-known university. The study was approved by the Campus ethics committee. Students were asked to give a verbal consent before completing the questionnaire. The aims of the research were explained to each participant beforehand and they were informed that their participation was voluntary and that their information would remain confidential. Sixty three percent of the participants were females and 37% were males. Majority of the participants (94.3%) were 18 to 25 years old, 3.3% were 26 to 29 years old and 2.4% were 30 years and over. The questionnaire consisted of 20 items which was shared amongst students in 4 faculties of the University of the West Indies in the academic year 2017/2018. Demographic questions included gender, age, and education level, faculty of study and year of study. The questions with a range of (1-5) were used to measure the degree to which their faculty of study affected their social life, daily activities and stress levels. Questions allowed for gathering information on drug use together with its regularity and assisted in getting feedback from the students on reducing depression and suicide levels. Students' responses were then analyzed and compared to determine if medical students suffered psychosocial effects due to the demands of tertiary education to a larger degree than non-medical students.

Results

The data of this study revealed that 48% of the Medical students were under depression which is higher than other students from engineering (31%), pharmacy (23%) and social sciences (20%) (Table 1). It was found that more than 50% of the students from each faculty consuming alcohol. The study showed that the 34% of the medical students were consuming the drugs. Medical students were higher in number thinking about suicide which is significantly higher when compared to engineering, pharmacy and social sciences student. Also, 45% of MBBS students have sought out advice or counselling as compared to 55% students of other faculties (Table 2).

Psychosocial trends	Medical (MMBS) (%)	Engineering (%)	Social sciences (%)	Pharmacy (%)
Depression	48	31	20	23
Alcohol/Cigarette	65	67	59	52
Drugs	34	9	8	9
Suicidal thoughts	26	13	8	7
Known suicide	100	88	82	80

Table 1: Psychosocial trends across the four faculties.

Sought advice	Yes (%)	No (%)
Medical (MMBS)	45	59
Others	55	41

Table 2: Advice taken from academic counseling.

Discussion

This study investigated the psychosocial effects of medical school on medical students as compared to students of other faculties, namely, Engineering, Pharmacy and Social Sciences. A disparity was expected going into the study, not just because of the information found in the available literature, but also because both the students belonging to the Faculty of Engineering as well as Faculty of Social Sciences were located at the University Campus whilst both the MBBS and Pharmacy students were location at the hospital campus, which provided a different learning and social environment.

The percentage of students found to be suffering from depression based on the study was 48%. This was found to be much higher than students of all faculties (Engineering- 31%, Social Sciences-19% Pharmacy- 22%). This showed that medical students do in fact have a much higher incidence of students suffering from depression as compared to students of all other faculties considered, which is consistent with the study done by other researchers [8].

Surprisingly, the number of students who admitted to regular alcohol consumption or cigarette smoking was high across all faculties, with the percentage of both MBBS and Engineering being in the 60's and both Social Sciences and Pharmacy having a value in the 50's. This was attributed to both the normalized accepted culture of alcohol consumption in Trinidad and Tobago as well as the fact that there a numerous bars and other "liming" spots where alcohol and cigarettes are available are conveniently located within walking distance of the University of the West Indies. The more interesting number however is the percentage of students who admitted to having taken "harder" or even illegal drugs. The number of MBBS students was found to be 34% whilst all other faculties had a value less than 10%. Students admitted to using drugs such as marijuana, as well as numerous anti-depressants and anti-anxiety medication. 93% of students said that they had never used any of the said drugs before starting university. The high drug usage of MBBS students, most of which only began after starting their degree, indicates that these drugs were used as a coping mechanism to deal with the stress of medical school and the perceived more stressful environment that they were in.

In accordance with all other findings, 25% of MBBS students admitted to suffering from suicidal thoughts, which was more than double that of any other faculty considered [6]. When put into perspective, this meant that one in every four MBBS student was suffering from suicidal thoughts but still pursuing this demanding degree in a perceived highly stressful environment. Shockingly, 100% of MBBS students admitted to knowing someone in their faculty that has considered suicide as compared to a lower percentage found across all other faculties. Yet still, a lower percentage of MBBS students have

sought out advice or counselling as compared to students of other faculties. This meant that even though more MBBS students were found to be suffering from depression and suicidal thoughts, they opted more so to keep their problems to themselves [14].

Limitations of the Study

The survey was distributed shortly after examination period for a significant proportion of the participants. This resulted in difficulty obtaining responses in a timely manner as many of the participants were busy with their personal lives and vacation. Furthermore, there was no way to confirm if the respondents accurately and honestly reported their emotions and opinions.

Due to the different and varying schedules of the para-clinical MBBS students, it was difficult to obtain more respondents from that category. A greater number of responses from para-clinical MBBS students would have given a more accurate representation of the psychosocial effects of the demands of medical school.

Conclusion

Medical (MBBS) students have a higher incidence of depression compared to students of other faculties. Whilst alcohol consumption and cigarette usage is close to the same across all faculties, medical students tend to abuse much "harder" or even illegal drugs more than three times as much as students of other faculties. One in every four medical student is suffering from suicidal thoughts, which is more than twice that of any other faculty. Medical students (100%) admitted to knowing someone that has considered suicide, whilst lower values were found in all other faculties, yet a lower percentage of medical students seem to seek advice or professional help as compared to students of other faculties. The university should use a mechanism to identify the students with psychosocial issues and address their problems.

References

1. Sahu PK, Nayak S, Rodrigues V (2018) Medical students' perceptions of small group teaching effectiveness in hybrid curriculum. *J Educ Health Promot* 7: 30-34.

2. Anuradha R (2017) Stress and stressors among medical undergraduate students: A cross-sectional study in a private medical college in Tamil Nadu. *Indian J Community Med* 42: 222-225.
3. Dyrbye LN, Thomas MR, Shanafelt TD (2005) Medical student distress: Causes, consequences, and proposed solutions. *Mayo Clinic Proceedings* 80: 1613-1622.
4. Slonim J, Kienhuis, M, Di Benedetto M, Reece J (2015) The relationships among self-care, dispositional mindfulness, and psychological distress in medical students. *Med Educ* 20: 27924.
5. Al Saadi T, Addeen, ZS, Turk T, Abbas F, Alkhatib M (2017) Psychological distress among medical students in conflicts: A cross-sectional study from Syria. *BMC Medical Education* 17: 173.
6. Eisenberg D, Gollust SE, Golberstein E, Hefner JL (2007) Prevalence and correlates of depression, anxiety, and suicidality among university students. *Ame J Orthopsychiatry* 77: 534-542.
7. Carson AJ, Dias S, Johnston A, Mcloughlin MA, Oconnor M, et al. (2000) Mental health in medical students: A case control study using the 60-item general health questionnaire. *Scott Med J* 45: 115-116.
8. Youssef FF (2016) Medical student stress, burnout and depression in Trinidad and Tobago. *Acad Psychiatry* 40: 69-75.
9. Rotenstein LS, Ramos MA, Torre M, Segal JB, Peluso MJ, et al. (2016) Prevalence of depression, depressive symptoms, and suicidal ideation among medical students: A systematic review and meta-analysis. *JAMA* 316: 2214-2236.
10. Iqbal S, Gupta S, Venkatarao E (2015) Stress, anxiety and depression among medical undergraduate students and their socio-demographic correlates *Indian J Med Res* 141: 354-357.
11. Dyrbye LN, Thomas MR, Shanafelt TD (2006) Systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students. *Acad Med* 81: 854-873.
12. Soliman M (2014) Perception of stress and coping strategies by medical students at King Saud University, Riyadh, Saudi Arabia. *J Taibah University Med Sci* 9: 30-35.
13. Mohammed N, Sultana R (2014) Stress and its coping strategies in medical students. *Schol J Appl Med Sci* 2: 3111-3117.
14. Daruna JH (2012) Introduction to Psychoneuroimmunology. (2nd edn.) Academic Press: London 2: 131-151.