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SCREENING FOR DEPRESSION AND ANXIETY AMONG MEDICAL AND DENTAL STUDENTS WHO ARE FORCED INTO THEIR FIELD OF STUDY

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ABSTRACT

Background and Objective: The study hypothesized that the students who are forced to enter the medical field by their parents may have a higher incidence of depression and anxiety.

Methods: A total of 210 medical and dental students were asked to fill out a form indicating their desire to enter medical college versus their parents' wishes on an analogue scale. They were also asked to fill out screening forms for depression and anxiety.

Results: The students who selected the medical field by their parent's wishes were found to have 1.2 times more anxiety & 1.96 times more depression.

Conclusions: Parents should consider children's willingness to enter the medical field before forcing them into medical school.

Keywords: medical college, school, education, parents, students, children, willingness, interest, choice, depression, anxiety.

INTRODUCTION

In the subcontinent, most of the brilliant students are expected to become doctors or engineers. It is considered a matter of prestige for the parents as doctors are considered financially secure and enjoy a level of prestige in our culture. Medical field is considered one of the safest ways to earn financial security. However, their children may feel differently especially because of the widespread use of social media and the internet.

Various studies have been conducted regarding the prevalence of depression and anxiety in medical students in Pakistan. ¹⁻⁶ They have shown high prevalence of psychiatric morbidity among medical students, especially females.⁷ Other countries have also reported higher incidence of stress, depression and anxiety in this population. ⁸⁻¹⁰ A study has shown that students who are coerced into becoming doctors and expected to earn money are more depressed and anxious.¹¹ Several studies conducted in Pakistan used The Aga Khan University Anxiety and Depression Scale (AKUADS, Urdu & English versions) or the Hospital Anxiety and Depression Scale (HADS),^{12,13} both scales have been validated. A study in Jordan showed that

nursing students who chose their field due to family pressure were more likely to be depressed.¹⁴ Other studies have shown that anxiety and depression are associated with socio-demographic and educational factors like test schedules.⁶

The study screened for depression and anxiety among medical and dental students in a private medical college in Southern Punjab. The hypothesis was that the students who are forced by their parents to join a medical institution may exhibit more anxiety and depression compared to those who join the field out of their own aptitude and will.

METHODS

Study design: It is a cross-sectional study using a self-administered questionnaire. The filling of the questionnaire was voluntary and consent was obtained. The study was approved by the ethical board of Multan Medical & Dental College. The questionnaire was administered to all students present in the MBBS and BDS classes.

Place and duration of study: The Study was conducted in Multan Medical & Dental College from 23rd January 2020 to 4th March 2020.

Sampling size: A total of 210 medical and dental students were asked to fill out a form indicating their desire to enter medical college versus their parents' wishes **Sampling technique:** Non probability, consecutive sampling.

Data collection instrument: The instrument used for screening for anxiety and depression was Patient Health Questionnaires (PHQ-4) for depression and anxiety.^{15, 16} The PHQ-4 is a four item questionnaire answered on a four point scale (0-3). Its purpose is to allow for ultra brief and accurate measurement of core symptoms/signs of depression and anxiety by combining the two-item measure (PHQ-2), consisting of core criteria for depression, as well as a two-item measure for anxiety (GAD-2), both of which have independently been shown to be good brief screening tools.

The questionnaire also included demographic information along with a visual analog scale (VAS) about students' choice of entry into medical school. The VAS was used since some students might have partial inclination to become doctors. The students who scored 8-10 were considered to have entered into medical school out of their wish while a score of 1-4 was considered parent's wish and a score of 5-7 was considered a mixed choice.

Statistical Analysis: We applied multivariable level Binary Logistic Regression analysis to evaluate the possible impact of socio-demographic characteristics of students on anxiety and depression. Thus, students with normal values of anxiety, depression were coded as "0" and those with anxiety & depression as "1".

RESULTS

The data was collected from 210 students from which 34.3% (n=72) were male, and 65.7% (n=138) were female. The admission in MBBS compared to the students' wish is shown in Table 1. Figure 1 shows the gender distribution of the same.

Table 1: Preference to study Medicine (VAS)

Student vs Parents' wish	No.
Parent's Wish	13.8% (n=29)
Both Wish	35.2% (n=74)
Students own Wish	51.0% (n=107)

VAS = Visual Analog Scale

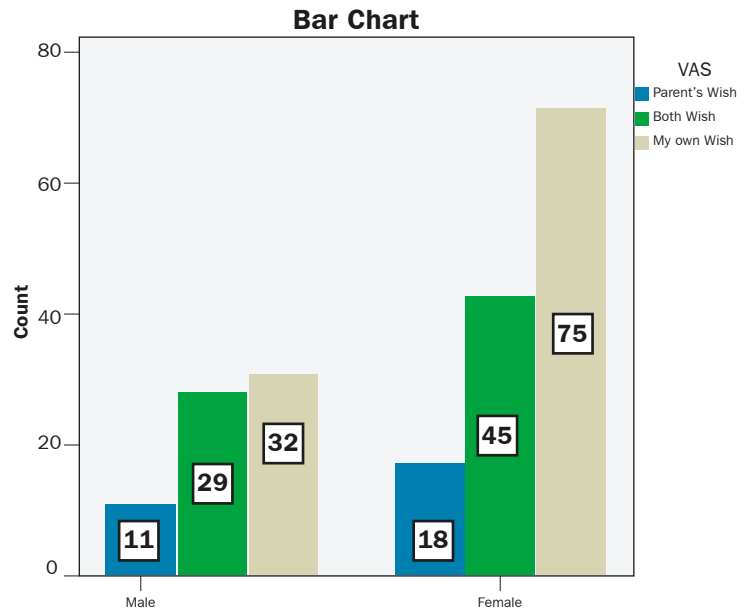


Figure 1: The gender distribution of MBBS admission compared to students' wish

Overall, 47.6% screened positive for anxiety and 43.8% (n= 92) screened positive for depression (Table 2 and Table 3).

Table 2: Anxiety Screen

Gender	Negative	Positive
Male	44	28
Female	66	72

Table 3: Depression screen

Gender	Negative	Positive
Male	49	23
Female	69	69

In the study, 51.0% of the students were willing to become doctors by their own wish and 13.8% entered in this field through their parent's wish and 35.2% had a combination. We applied multivariable level Binary Logistic Regression analysis to evaluate the possible

impact of socio-demographic characteristics of students on anxiety and depression. Thus, students with normal values of anxiety, depression were coded as "0" and those with anxiety & depression as "1". The results of these analyses are shown in Table-4.

Table 4: Depression and anxiety among students who were coerced into medical field

VASa	B	Std. Error	Wald	df	Sig.	Exp (B)	95% Confidence Interval for Exp(B)		
							Lower Bound	Upper Bound	
Parent's Wish	Intercept	-.038	.791	.002	1	.961			
	Anxiety	.167	.498	.113	1	.737	1.182	.445	3.139
	Depression	.674	.506	1.774	1	.183	1.962	.728	5.292
	Gender	-.244	.477	.261	1	.610	.784	.307	1.997
	Class	-.512	.278	3.386	1	.066	.599	.347	1.034
My own Wish	Intercept	.154	.597	.067	1	.796			
	Anxiety	-.132	.341	.150	1	.698	.876	.449	1.709
	Depression	-.046	.348	.017	1	.895	.955	.483	1.887
	Gender	.439	.327	1.807	1	.179	1.551	.818	2.943
	Class	.003	.205	.000	1	.990	1.003	.671	1.499

a. The reference category is: Combined Wish (of parents and students).

The comparison between family history of depression and anxiety with students' preference to enter medical field is given in Table 5 and Table 6

Table 5: Family history of depression and own preference to enter medical field

	B	Sig.	Exp(B)	95% C.I for Exp(B)	
				Lower	Upper
Depression	Gender(1)	.796	.011	2.217	1.200 4.094
	Own preference to study medical (Yes)	.422	.017	1.525	.829 2.808
	Depression in family (Yes)	-.564	.057	.569	.292 1.108

Table 6: Family history of anxiety and own preference to enter medical field

	B	Sig.	Exp(B)	95% C.I for Exp(B)	
				Lower	Upper
Anxiety	Gender(1)	.589	.056	1.801	.986 3.293
	Own preference to study medical (Yes)	.760	.016	2.139	1.154 3.962
	Depression in family (Yes)	-.635	.05	.530	.271 1.037

The study shows that students have 1.2 times more anxiety & 1.96 more depression who selected the medical field by parent's wish. It is less in those students who selected the medical field by their own wish; Anxiety = -0.132 & depression = -0.046.

DISCUSSION

Previous studies have shown that the prevalence of stress and depression among medical students is high¹⁷. Academic pressure is mentioned as a factor.¹⁸ Students with substance abuse, having a family history

of depression and anxiety and those who had lost a relative in the last 1 year were more likely to be depressed and anxious.¹⁹ Another study reported that the female students living in university dormitories were significantly more depressed and anxious than those living at home.²⁰

The study shows that when screened for depression and anxiety, medical and dental students who were forced to choose their field of study scored higher than those who made this choice on their own. When the family history of depression and anxiety were taken into account, the study showed that both decreased when the students entered medical college by their choice. This study raises the important question regarding mental health of future health care providers. Forcefully committing bright and young students to the medical field may make their parents proud but it may have serious repercussions for the students. The limitations of our study include: a) The study only screened and did not formally diagnose the students for anxiety and depression, b) The number of students is relatively small, and c) The data was collected from only one medical college.

CONCLUSION

Students who are coerced by their families into the medical field score higher for depression and anxiety and parents should have a discussion with their children regarding their interests before committing them to medical college. Career counseling should focus on students as well as their parents. Also, students counseling services should be available in medical colleges to help students who are suffering from depression and anxiety. Further studies with formal diagnoses and bigger sample size are needed to strengthen these recommendations.

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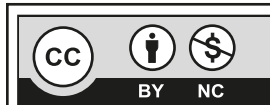
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Author's contribution:

Sohail Ahmed Khan; concept, data analysis, manuscript writing, manuscript review

Asvad Ahmad Khan; data collection, manuscript writing, manuscript review

Asiyah Ahmed; data analysis, manuscript review



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