

## Prevalence of Depression Among Medical Interns in King Khalid University

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### ABSTRACT

**Introduction:** Mental health is regarded as an essential component of health by the World Health Organization. A person could be termed depressed if he/she shows a variable combination of low mood; loss of interest or pleasure; feelings of guilt; low self-esteem; disturbed appetite; disturbed sleep; or disturbed concentration. Medical students are at high risk of different kinds of mental illnesses. It is well known that the pressure of medical school poses tremendous challenges leading to high rates of anxiety and depression among medical students. The objective of this study was to determine the prevalence of depression among medical interns at King Khalid University, Saudi Arabia.

**Methods:** An cross-sectional survey was conducted amongst 49 male medical interns at King Khalid university via Patient Health Questionnaire (PHQ-9).

**Results:** 49 male medical interns at King Khalid University were involved in this study. Prevalence of self-identified depression (PHQ - 9  $\geq$  5) was found to be 77.6 %, a high

percentage of major depressive symptoms were found in smoker group.

**Conclusion:** Depression is prevalent among medical interns. Steps such as education, Support and treatment are required to improve the psychological states of the medical interns.

**Keywords:** Mammograms, Breast Cancer, Saudi Arabia.

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### INTRODUCTION

Mental health is regarded as an essential component of health by the World Health Organization. A person could be termed depressed if he/she shows a variable combination of low mood; loss of interest or pleasure; feelings of guilt; low self-esteem; disturbed appetite; disturbed sleep; or disturbed concentration.<sup>1</sup>

Several studies estimated the prevalence of depression in Saudi Arabia. Al-Khathami et al. noted a 18% prevalence of depression and anxiety among adults in central Saudi Arabia.<sup>2</sup> In a systematic review on depression by Al Ibrahim et al. Showed prevalence of 41%.<sup>3</sup> The prevalence of depression among residents of Dammam 17% (El Ruffaie et al. 2010)<sup>4</sup>, 27% in Asir (Al Qahtani et al. 2008)<sup>5</sup>, and 12 % in south eastern region.<sup>6</sup>

Medical students are at high risk of different kinds of mental illnesses. It is well known that the pressure of medical school poses tremendous challenges leading to high rates of anxiety and depression among medical students.<sup>7</sup> The academic stress promotes a sense of competition and motivation among medical

students. On the other hand, it sometimes creates anxiety and feelings of helplessness, leading to a stress-related disorders and adversely affecting their academic performance.<sup>8</sup> Medical students experience depression, burnout and mental illness at a higher rate than general population and they are less likely to receive appropriate treatment despite available access to care.<sup>9</sup>

Previous studies in many countries have shown that medical students have high rates of anxiety & depression during their training. A cross-sectional study conducted in Jeddah reported that the prevalence of morbid anxiety and depression were 34.9% and 14.7%, respectively.<sup>10</sup>

A study done in Pakistan reported a very high prevalence of anxiety and depression (70%) was found among medical students.<sup>11</sup>

The objective of this study was to determine the prevalence of depression among medical interns at King Khalid University, Saudi Arabia.

**METHODOLOGY**

An cross-sectional survey was conducted amongst 49 male medical interns at King Khalid university. The questionnaire included socio-demographic details, Patient Health Questionnaire (PHQ-9). PHQ-9 is a validated questionnaire to screen for depression. Cut-off scores used were 0-4 for no depression, 5-9 for mild depression, 10-27 for mild to severe major depression.

**Ethical Consideration**

Study was explained to participants and informed consent were taken from the participants.

**Statistical Analysis**

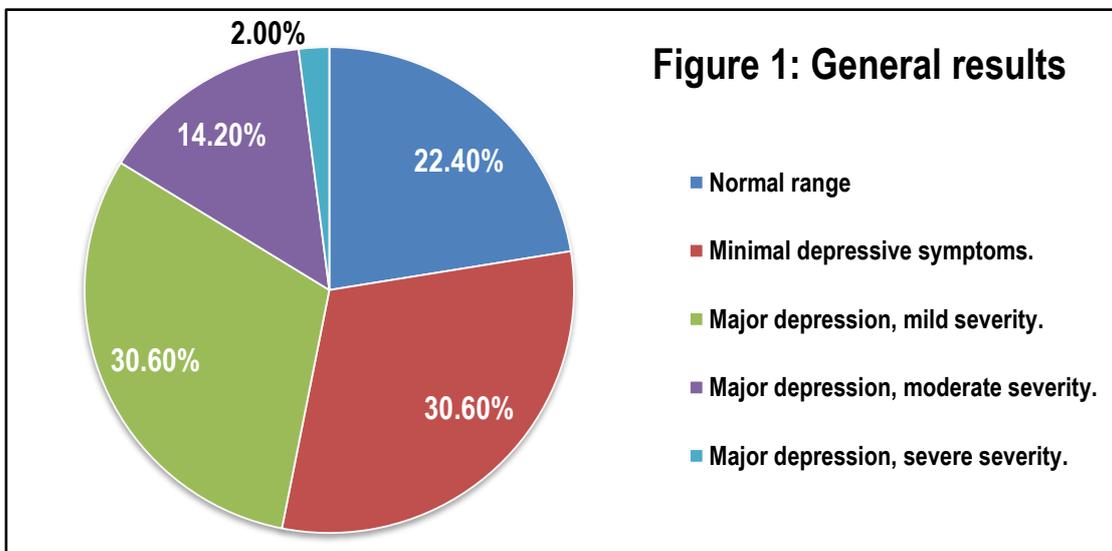
The collected Data were entered and analyzed using the Statistical Package for Social Sciences (SPSS) statistical program version 19.

**Table 1: Show participants number and smoking status**

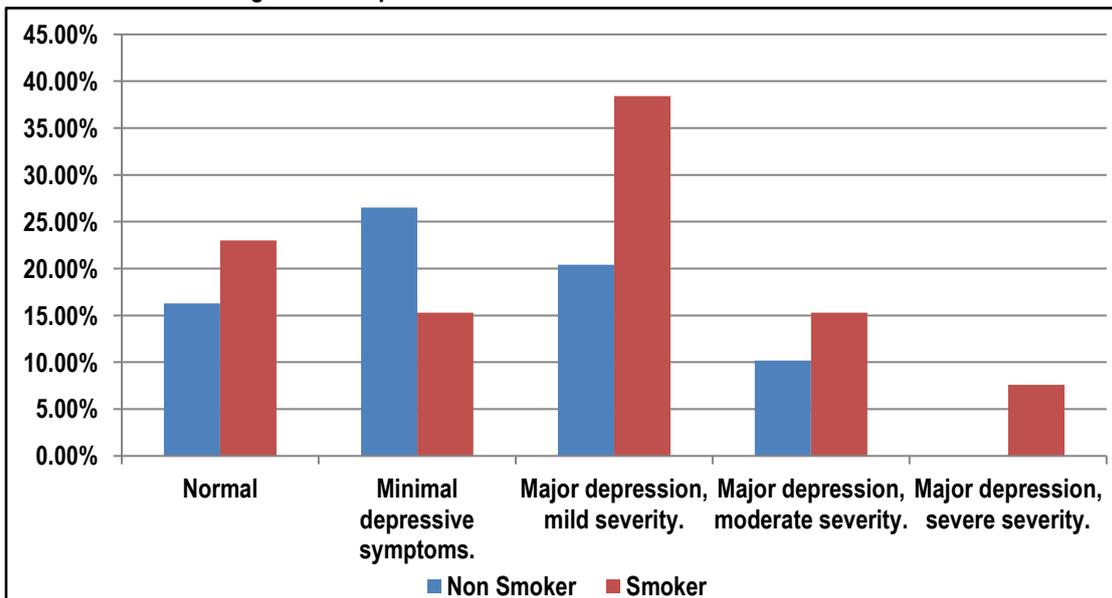
	Number	Percent
Non Smoker	36	73.5%
Smoker	13	26.5%
Total	49	100%

**Table 2: Show the result according to PHQ-9 score.**

Score	Number	Percent	
0-4	11	22.4%	Normal range or full remission.
5-9	15	30.6%	Minimal depressive symptoms.
15-19	15	30.6%	Major depression, mild severity.
10-14	7	14.2%	Major depression, moderate severity.
20 or higher	1	2%	Major depression, severe severity.



**Figure 2: Comparison between smoker and non-smoker interns.**



## RESULTS

49 male medical interns at King Khalid University were involved in this study. (Table 1)

Only 11 participants get score of 4 or below which indicate a normal range, on the other hand Prevalence of self-identified depression (PHQ-9  $\geq$  5) was found to be 77.6 %. (Table 2)

As shown in Figure 1, 30.6% of the participants show minimal depressive symptoms, 30.6% show major depression, mild severity, 14.2% show major depression, moderate severity and 2% show major depression, severe severity.

A high percentage of major depressive symptoms were found in smoker group, where 38.4% of smoking interns had major depression with mild severity, 15.3% had major depression with moderate severity and 7.6% had major depression with severe severity. (Figure 2)

## DISCUSSION

Prevalence of self-identified depression was 77.6%. 31.5% of the interns were likely to meet the standardized criteria for major depression (PHQ-9 score  $\geq$ 10). Prevalence of self-identified depression among medical students in previous studies was between 50% to 70%.<sup>12,13</sup>

Prevalence of self-identified depression was significantly higher in the smoker group as compared to non-smoker group.

Limitation of the study is that the study was cross-sectional survey. Further longitudinal studies with intervention need to be planned.

## CONCLUSION

In conclusion, depression is prevalent among medical interns. Steps such as education, Support and treatment are required to improve the psychological states of the medical interns.

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