

# Psychological distress experienced by medical students



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## INTRODUCTION

The psychological distress of medical students is more commonly associated with stress, anxiety and depression [1]. It is a fact that tertiary medical education is highly stressful due to factors that include academic pressures, obstacles to their goal achievement, environmental changes, life challenges such as transition from school to university and the change in role from student to knowledgeable physician [2, 3]. Even though there were studies suggested that some stress in medical school training involve stress, this stressful environment can exert a negative effect on the psychological and physical well-being of the undergraduates [5, 6].

The stress can be defined as “ a state of mental or emotional strain or suspense” and also as “ a number of normal reactions of the body (mental, emotional, and physiological) designed for self-preservation” [7]. Stress is also defined as not just a stimulus or a response but rather, it is a process by which we perceive and cope with environmental threats and challenges [8]. On the other hand, anxiety can be defined as “ an emotion characterized by feelings of tension, worried thoughts and physical changes. People with anxiety disorders usually have recurring intrusive thoughts or concerns. They may avoid certain situations out of worry. They may also experience physical symptoms such as sweating, trembling, dizziness or rapid heartbeat” [4]. While depression is more than just sadness. People with depression may experience a lack of interest and pleasure in daily activities, significant weight loss or gain, insomnia or excessive sleeping, lack of energy, inability to concentrate, feelings of worthlessness or excessive guilt and recurrent thoughts of death or suicide [4]. However, for the sake of simplicity, these

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three most common condition psychological issues are coined into one term that is ' stress' as all of them are closely related [9].

Several studies have revealed that the incidence of stress among medical profession are increasing day by day and medical students have been found to experience higher level of depression and anxiety compared to the general population and to their same age group individuals [10, 11, 12]. The top ten main stressors found by Yusuf et al. at Universiti Sains Malaysia (USM) based on scores given by the medical students were all related to academic matters while Wolf et al. listed examination, class-work and financial responsibilities as their main stressor [13, 14]. Therefore, it is critical for medical educators to understand the prevalence and causes of student distress, potential adverse personal and professional consequences, and institutional factors that can influence student's health. It is suggested that an intervention programs could be implemented to reduce the stress levels [14].

## OBJECTIVES

The review was carried out to address the following questions:

1. What is the prevalence of psychological distress experienced by medical students'?
2. What are the socio demographical factors associated with psychological distress experienced by medical students'?

## METHODOLOGY

10 keyword were chosen to do the search for this project.

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Keywords - Malaysia, Medical students, stress, psychological distress, anxiety, depression, emotional disorder, mental health, undergraduates and trainee

Literature review was carried out using the following electronic databases: PUBMED, Medline, Science Direct, Up-to-Date and Google scholar databases for articles on medical student's distress in Malaysia. It was a systemic review of the literatures carried out from October 2014 to February 2015.

#### Inclusion and Exclusion criteria

All articles that published data related to stress or psychological distress/health of Malaysian medical students and written in English were eligible for inclusion in this study. The latest articles published since January 2014 was included. From the search, 20 full text articles were retrieved based on the relevance in relation to the topic. In addition, the reference list of the articles retrieved were also checked to find similar articles.

## RESULT

#### Instrument used

There are variety of tools used to assess psychological distress. The tools used will be selected based on elements to be assess. The most common one used for assessment of stress in Malaysian based study is General Health Questionnaire (GHQ) using 12 items or 28 items. The questionnaire was developed by Goldberg in 1978 which measures two important elements. The first one is the inability to carry out normal functions and the appearance of distress. The second is to assess the well-being in a person <https://assignbuster.com/psychological-distress-experienced-by-medical-students/>

[15]. Other tools for used includes Social Phobia Inventory (SPIN), Beck's Depression Inventory (BDI) and Depression Anxiety and Stress Scale (DASS). Medical Student Stressor Questionnaire (MSSQ) was used to identify sources of stress or stressor [16].

### Prevalence of psychological distress

The overall prevalence rate of psychological distress among medical student in Malaysia are range from 14. 3% to 56% [17, 18]. The highest prevalence rate of 56% was obtained from Salina et al. where they did a survey on 101 medical students in University Malaya (UM). Based on SPIN scores, they conclude that 56% of the medical student who scored 19 or above have higher probability of having social anxiety disorder [18]. While the lowest prevalence of psychological distress with rate of 14. 3% was documented by Yusoff et al. from the study among a cohort of University Sains Malaysia (USM) medical students where two cohorts of first year (2008/2009 and 2009/2010 intake) were compared. Cohort 1 was selected based on academic merit while cohort 2 was selected based on academic merit, psychometric assessment and interview performance. Based on GHQ scores, the results indicate that cohort 1 (prevalence rate of 26. 3%) experienced more psychological distress compared to cohort 2 (prevalence rate of 14. 3%) indicating that stratification of student selection by using multimodal criteria might better identify medical students with good psychological health [17]. A study on psychological distress by using DASS scores was done by Nikmat et al. among 110 preclinical medical students of University Teknologi Mara (UiTM). The results were classified into mild, moderate, severe and extremely severe. It was further divided into two group which <https://assignbuster.com/psychological-distress-experienced-by-medical-students/>

were 'clinical' for severe and extremely severe and 'sub-clinical' for mild and moderate. Out of 110 students, 5.5% of students had clinical depression, 24.5% clinical anxiety and 7.3% had clinical stress. Other remaining students experienced sub-clinical depression, anxiety and stress with prevalence of 36.4%, 35.5% and 30.0% respectively [21]. Yusoff et al. documented prevalence of depressive symptoms rate by using BDI scale among final year medical students stood at 21.7% [22].

## Socio demographic variables

### 1. Study years

Stress among different years of students was studied by Sherina et al, Zaid et al and Yusoff et al. Cumulatively, They found that the stress prevalence for different years of study were varied. According to Sherina et al. based on the study in 2003, there was high prevalence of stress among 1<sup>st</sup> (48.6%) and 4<sup>th</sup> (41.4%) year medical students in comparison to students of second, third and final years. The most acceptable explanation was that 1<sup>st</sup> year student have to adjust to a new environment of medical educations. While the year 4 students whom just in their early days of clinical setting need to adjust their way with hospital setting and undergo clinical examinations which were totally different from pre-clinical years [23]. In addition to that, a study done by Zaid et al. in 2007 seems to support the findings of Sherina et al. with their results of having high prevalence of emotional disorder for the 1<sup>st</sup> (50%), but rather different for 5<sup>th</sup> (62.7%) year medical students. The extremely high score documented by the final year students (5<sup>th</sup> year) was probably due to high expectations for them to become a competent doctors

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and to acquire good academic results, whereas the high score for the 1<sup>st</sup> year students might be because of the effect of stiff competition they faced to enter the medical schools and also due to process of adjustment to the medical education setting [24]. In contrary to that, in 2010 Yusoff et al. found lower stress prevalence in both 1<sup>st</sup> (26.3%) and final year (21.9%) students. Even other years of study also showed lower stress prevalence with 36.5% for 2<sup>nd</sup> year, 31.4% for 3<sup>rd</sup> year and 35.3% for 4<sup>th</sup> year medical students in comparison to result documented by Sherina et al. and Zaid et al. The probable reason was that 1<sup>st</sup> year students were at the beginning of their course, full of euphoria and still not yet face difficult subjects which make them less stressful. On the other hand, 5<sup>th</sup> year students possibly developed skills to manage their studies and able to cope with stress. According to Yusoff et al. adaptation periods to the new phases of studies and impact of transition could be the reason of high prevalence in 2<sup>nd</sup> year and 4<sup>th</sup> year students [14].

## 2. Ethnicity

Although there was no documented significant association between ethnic and psychological distress, Johari et al and Sherina et al. managed to publish the prevalence of psychological distress between the 4 major ethnicities in Malaysia. Sherina et al mention that Chinese and other ethnicities had prevalence rate of 42.0% and 18.8% respectively, which was lower compared to Indian whom had the highest prevalence (48.1%) followed by the Malays (42.9%) according to Johari et al [23, 25].

## 3. Gender

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To date, only few articles were found to study relationship of stress between male and female [14, 18, 23, 24]. As expected, all studies indicate that female students have higher stress level compared to male, although only one; Yusoff et al. was able to achieve significant relationship statistically [20].

#### 4. Financial problem

There are two studies which was conducted inter universities (public universities) by Yusoff et al. and Johari et al. in 2009 and 2011 that highlighted the significant relation between psychological distress and financial difficulties [25, 26]. While Radman et al. also obtained similar result in their investigation among private inter universities [27]. Apparently, Zaid et al. whom did similar research in one private medical school did not found any relation between financial issues and psychological distress [24].

#### 5. Relationship problem

Rather surprising fact found by Zaid *et al.* (2007) which stated that relationship problems with parent, siblings, friends and lecturers were not associated with psychological distress [24]. However, earlier research in 2003 by Sherina *et al.* did mention that there were significant stress level among medical students having relationship problems, and this fact was supported by Johari *et al.* in 2009 [23, 25]. Apart from that, other types of relationship which can be consider a special relationship (marital and romantic relationship) might help to reduce stress level. As mentioned by Zaid *et al.* the students whom did not involve in special relationship were found having significantly more stress (51. 7%) than (37%) in those who



involved [24]. In addition, married students were proved by Johari *et al.* to be in significantly less stressed compare to single status [25].

## 6. Other factors

Yusuf et al. in his study involving inter universities medical students, has found that there was a significant relationship between different universities and psychological distress. Perhaps different kind of modules, examination, environment, clinical structures do play a role [26]. While poor general health and younger also identified as significant factors for psychological distress [25, 26]. Other factors such as types of school, number of siblings, religion and co-curriculum did not contribute to stress among medical student [14, 18]

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