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Prevalence and Factors associated with Anxiety and Depression among Family Practitioners in Karachi, Pakistan

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Abstract

Objective: We aimed to assess anxiety and depression and to identify the factors associated with these conditions among family practitioners in Karachi, Pakistan.

Methods: A self-reported postal survey was conducted among 540 family practitioners in Karachi during the months of July -August 2003. Aga Khan University Anxiety and Depression Scale (AKUADS) was used to assess anxiety and depression. Additional questions were also inquired to get information about socio- demographic, professional and lifestyle characters.

Results: Using AKUADS, 155 (39%) family practitioners had anxiety and depression. Multivariate analysis disclosed five factors to be significantly associated with anxiety and depression; these were female sex (AOR = 6.4, 95% CI 3.2-12.6); age group of < 35 years (AOR = 23.3, 95% CI 9.0-60.3); lack of regular exercise (AOR = 4.9, 95% CI 2.4-10.2) and working for more than 48 hours per week (AOR = 12.7, 95% CI 6.2-26.2).

Conclusion: This study reveals that prevalence of anxiety and depression among family practitioners in Karachi is high and higher than general population in Karachi. Further research and intervention studies are required to identify preventive measures in this regard and also to assess the impact of these interventions (JPMA 54. 45;2004).

Introduction

World-wide, an estimated 121 million people currently suffer from depression.¹ Over ninety percent of mental health problems are anxiety and depression and co- morbidity is common.² Five out of the ten leading disorders that generate most disability-adjusted life years (DALYs) are psychiatric in nature including depressive disorders which will be ranking second by the year 2020.³ Two-third of the affected people are living in the developing countries; and this ratio is expected to rise.³⁻⁵ Pakistan is a developing country, where 25% to 30% of study population are suffering from anxiety and depression.^{6,7} Doctors face particular challenges and conditions such as high patients attendance, long duty hours, limited resources to work, repetitive exposure to traumatic events, potentially violent situations, difficult patients, ethical dilemmas and critical decision making that place them at more risk of anxiety, depression and other stress related psychosocial problems. Doctors have higher degree of psychological morbidity, 8-10 suicidal tendencies¹¹ and alcohol dependence¹² than controls of comparable social class. In United Kingdom,¹³ about half of the senior medical staff suffers from high level of stress and anxiety. Similarly, half of the junior doctors were suffering from emotional disturbance.¹⁴ Anxiety and depression can affect both individuals' personal life as well as his/her working status. At the individual level, anxiety and depression are threat to physical health, quality of life, goal achievement and personal development. For the workplace, these conditions lead to increased absenteeism,

conflict and turnover and reduced quality and quantity of work. Doctors are no exception for this. Amongst doctors, poor psychological health has been associated with impact on the quantitative and qualitative care of patient, 15 leading to poor performance and resulting affects on patient's satisfaction 16,17 and adherence to treatment.18

Subjects and Methods

This was a cross-sectional, self-reported postal survey conducted during the months of July -August 2003 among family practitioners working in Karachi, Pakistan. All doctors who were working as family physicians were included in the study. However, doctors working in any specialty or subspecialty, those having suffered bereavement in the last six weeks and had depressive symptoms for less than six weeks were not considered as study participants so as to include only those who had persistent features of depression. The number of family practitioners working in Karachi is not exactly known. By assuming this number as infinite thus to get the maximum coverage of study population (family practitioners working in Karachi) for assessing the study objectives, the calculated sample size was 384. However, expecting the 50% non-response rate, the questionnaire with a pre-paid return envelope was posted to 576 family physicians in Karachi. Respondents were assured about the confidentiality of the information through a covering letter. A reminder was sent after two weeks to those who had not responded. In all, we received the responses from 438 (76%) doctors and among them 397 were included in the final analysis. Out of the remaining, 13 questionnaires were incomplete and 28 had not qualified the inclusion criteria as study participants. The Aga Khan University Anxiety and Depression Scale (AKUADS) 19 was used to assess anxiety and depression. AKUADS has 25 items, 13 psychological and 12 somatic, which increases its reliability for use as a screening instrument. At a score of 20, AKUADS has specificity of 79%, sensitivity of 66%, positive predictive value of 83% and negative predictive value of 60%. It also has a high internal consistency as all its stems are significantly related to the total score and stems inquiring about psychiatric issues are significantly related to each other, and the same is true for the stems of somatic manifestations. 19 This tool has been used previously by various studies in different communities, 7.20 including study on medical students in Karachi, Pakistan. 21 To determine the relationship of anxiety and depression, additional questions were included in the questionnaire. These were: socio-demographic characteristics (sex, age, marital status and ethnicity) and professional characteristics (years since graduation i.e., MBBS, average number of patients seen per week and average number of hours worked per week). In addition, lifestyle behaviors such as smoking status and exercise habits were inquired. Respondents who were currently smoking and smoked at least 100 cigarettes in their lifetime were defined as 'current smokers' and those who had smoked in the past but were not smoking since last 6 months were labeled as 'past smokers'. Exercise was defined as 'regular' if a person was doing at least 20 minutes exercise or at least 30 minutes brisk walk, four or more times per week, while those who were doing it less than that were labeled as 'occasional'. Those participants who are not doing any type of exercise or brisk walk in their routine life were described as 'never doing exercise'. Statistical Package for Social Sciences (SPSS) version 10 was used for analysis. Descriptive analysis was done to describe the socio-demographic and professional characteristics among family practitioners of Karachi

Frequencies for those who have scored 20 and more for AKUADS were also calculated. Univariate analysis was done by using Chi-square test as well as crude odds ratios with 95% confidence intervals (CI). Multivariate logistic regression was calculated to evaluate the independent effect of multiple factors associated with anxiety and depression after adjusting for confounding variables and results were presented in terms of odds ratios which express the magnitude of the effect of each category on the outcome, relative to the reference category.

Results

The demographic, lifestyle and professional characteristics of family practitioners working in Karachi are presented in Table 1. Sixty-two percent of respondents were males, 75% were married and 52% were Urdu speaking. Thirty-one percent of study subjects were doing exercise regularly. Majority of family practitioners (82%) had passed MBBS for ten years or more, 51% of the respondents seeing hundred or more patients per week and 59% were working for more than 48 hours per week. Using AKUADS, overall, anxiety and depression was found among 39% of family practitioners. It was higher in females (51%) compared to their male counterparts (32%). Factors associated with anxiety and depression in the univariate analysis are summarized in Table 2. In the final multivariate model as presented in Table 3, females, younger age group (<35 years), not doing exercise, and those working for more than 48 hours per week were found to be significant factors for anxiety and depression. The odds of persons with anxiety and depression being female were more than six times that of their male counterparts (AOR = 6.4, 95% CI 3.2 -12.6). Family practitioners younger than 35 years were twenty-three times more likely to have anxiety and depression (AOR = 23.3, 95% CI 9.0 - 60.3). Not performing regular exercise was five times more likely among family practitioners with anxiety and depression (AOR = 4.9, 95% CI 2.4 -10.2). Those who reported of working more than 48 hours per week (AOR = 12.7, 95% CI 6.2 -26.2) were more likely to be among persons with anxiety and depression. Overall, 33% family practitioners were current smokers and 10% were past smokers. Majority of current smokers were males (89%) and this sex difference was highly significant ($p < 0.001$). Amongst current smokers, 71% were found to have anxiety and depression compared to 29% current smokers without anxiety and depression and the difference was highly significant ($p < 0.001$).

Discussion

In Pakistan, higher prevalence of anxiety and depression was reported among different communities, however, very limited evidence is available on the psychological issues among health care providers. To the best of our knowledge, this is the first study in Pakistan to assess the level of anxiety and depression among doctors. It is highlighted in this study, that significant numbers of family practitioners (39%) were suffering from anxiety and depression. These results are comparatively higher to the results reported in community-based surveys among the general population in Karachi, 7.2% which have also used AKUADS instrument to assess level of anxiety and depression. It was reported that majority of doctors working in teaching hospitals of

Karachi, were suffering from stress and job dissatisfaction. It was found that females had significantly higher levels of stress and that affects on their physical and mental health. It was also identified that excessive workload was a statistically significant factor among these doctors. Community-based studies from Pakistan also reveal that depression was commoner among females. 6,7 In this study also, we found that females were more than six times likely to have anxiety and depression and excessive duration of work (>48 hours per week) were also associated to have these conditions. Doing regular exercise has many positive health outcomes including mental health. There is ample evidence that exercise reduces the intensity of depression, and that depression is more common in those who are inactive physically. 22,23 In our study, those who were not doing regular exercise had five times more anxiety and depression compared to those who were exercising regularly. Prevalence of depression rises with age. 6,7 In our study, however, family physicians with younger age had significantly higher levels of anxiety and depression. It is understood that majority of doctors trying for their post- graduation examinations at their younger age and doing post-graduation needs extra time, cost and efforts and failing in these examinations may result to anxiety and depression. Moreover, it is also noticed that doctors at the beginning of their career are more concerned and thoughtful about their future prospectives which can lead them towards anxiety and depression. In Pakistan, smoking is becoming an epidemic. Pakistan National Health Survey 24 reported that smoking is more prevalent in males compared to females i.e., 29% vs 3.4%. In Karachi²⁵ and Peshawar ²⁶ large number of people smoked to relieve tension, frustration and anger and to concentrate on work. In our study also, among current smokers, 89% were males and those among current smokers, 71% were found to have anxiety and depression. The best way to deal with anxiety and depression is to eliminate it at its origin i.e., the stress should be dealt in terms of preventive rather than as a treatment strategy. Recognizing problems and dealing with them positively and pro-actively is the cost-effective way in the management of anxiety and depression. In this regard, an integrated approach for successful anxiety and depression management should be applied, for example providing one- to-one counseling and psycho-social services-clinical, occupational and health counseling, social support, relaxation activities and control of over-work. We could not contact a representative sample of all medical doctors of Karachi and study sample was convenient one, therefore generalizability of the results is in question. The data of this study was 'self-reported' and considering the stigma attached to mental illness, there may be a reporting bias. Because of inherited limitation of cross- sectional study, cause-effect association between studied characteristics and depression can not be made from this study, however, it does indicate possible associations between various factors studied. In conclusion, despite these limitations, this work gives some insight about the prevalence of anxiety and depression and its associated factors among family practitioners of Karachi. At a broader extent, base-line information is required about the mental health of doctors at the time of entrance in their professional life, during student (medical) life and even before access to medical schools. More discussion and research are required to understand this problem and to explore sources of psychological problems among doctors and their possible solutions at larger scale. Intervention studies are also needed to identify preventive measures and to assess the effects of any change secondary to implementation of preventive strategies.

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