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Medical Residents of Family Medicine Management of Depression, Anxiety and Burnout Syndrome in KSA

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Abstract
This study aimed at analyzing the Medical Residents of family medicine management of depression, anxiety and burnout syndrome in Kingdom Saudi Arabia. This study also describes the relationship between wellness behaviors and measures of well-being at the start of family medicine residency in Kingdom Saudi Arabia. The researcher adopted the Methodology of descriptive statistics. And the study concluded that the innovative curriculum and activities that focus on wellness behaviors and healthy lifestyle choices for physicians in training are needed. The ACGME mandate on implementation of duty hours for residents may show a positive effect in future generations of physicians. Family medicine programs can lead in creating additional institutional methodologies to support a culture of wellness for residents, faculty, and staff, thus promoting a lifelong commitment to self-care and an emphasis on prevention and health promotion for our patients.

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1.1 Introduction

Long hours, little sleep, and inadequate personal time have traditionally been the *sine qua non* of graduate medical education. Family medicine was among the first medical specialties to embrace the biopsychosocial model*1* in its effort to reform a traditionally physician-centered system and focus on the patient-physician relationship with the patient viewed in the context of the family and community. “It is the extent to which this relationship is valued, developed, nurtured, and maintained that distinguishes family medicine from all other specialties.” Unfortunately, the demands placed on family physicians in training too often result in stress, depression, and burnout, eroding physician empathy, compassion, and presence for their patients (Lebensohn, Dodds, Benn, Brooks & Birch, 2013).

Depression is a common, often untreated illness that has a devastating impact on interpersonal and workplace functioning. The National Comorbidity Survey replication study found a 16% lifetime prevalence of major depressive disorder and 6.6% prevalence in the 12 months prior to the survey. Nearly 97% of those reporting major depression in the past year reported at least 35 days where they were unable to function due to depression (Kessler et al., 2003).

Employees with depression have more sick days, less productivity, and are more likely to get terminated (Katon, 2009).

Many studies have shown that depression or emotional impairment in resident physicians is more common than that in the general population and result in patient care errors, leaves of absence, career changes, or suicide (Fahrenkopf et al., 2008).

The potential public health implications of this are apparent considering the nature of resident physicians’ work and the potential loss of future healthcare providers. Our goal is to describe the current literature addressing major depression in resident physicians in a narrative fashion that will allow the reader to better understand its risk factors.

Medical residents (MRs) are professionals who are in a health unit for a full-time medical residency. Medical residences are an educational system that helps complete the training of physicians in some specialty by performing professional activities, which are carried out under the supervision of tutors in health institutions with an approved educational program (Frenk, Chen, Bhutta, Cohen, Crisp, Evans & Kistnasamy, 2010).

Burnout Syndrome (BOS) or work-consuming syndrome is a growing public health problem that affects the

health of medical residents and the quality of care with patients, deteriorating the doctor-patient relationship and assuming a high cost, both social and economic (Tuisku, Pulkki-Råback, Ahola, Hakanen & Virtanen, 2012).
BOS is defined as exhaustion due to excessive physical and emotional effort triggered by the work area and favoring depersonalization or instability towards the patient, with behaviors of indifference and negative attitudes toward work and patients (Yao, 2008).

BOS shares psychosomatic, behavioral and emotional symptoms with anxiety and depression (see figure 1); depression is considered the most frequent alteration of mood characterized by mood, cognitive, psychomotor and vegetative alterations (Mittermaier, Dejaco, Waldhoer, Oefferlbauer-Ernst, Miehsler, Beier & Moser, 2004).

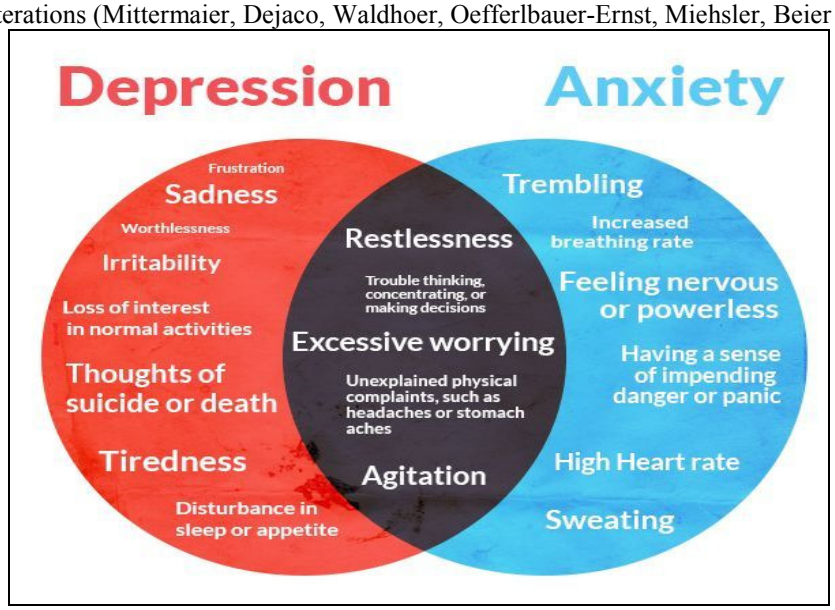

Figure (1): Symptoms of anxiety and depression

Anxiety is a response that is triggered by a situation of physical or psychic threat, characterized by agitation and unpleasant restlessness whose purpose is to equip the energy body to cancel or counteract the danger, predominating psychic symptoms and the sensation of catastrophe or imminent danger (Arnold & Nieswiadomy, 2005).

Nowadays, mental disorders have a strong impact on life, family and society. Stress, mainly labor type, is the most frequent type of chronic stress that causes BOS and depression. Stress is necessary to have adequate responses to threatening experiences, but prolonged exposure to high levels is the most recognized cause of Anxiety and Depression (Hatch & Dohrenwend, 2007).

It has been argued that severe or prolonged stress causes an increase in the biogenic amines of the brain causing excessive use that exceeds synthesis and causes a fall in reserves to critical levels resulting in the development of depressive symptomatology (Beck & Harrison, 1982).

Spiegel et al., found that the stress of physicians in training are exposed is perceived to be inversely proportional to their academic performance. Depression is diagnosed by the presence of one or more depressive episodes with a minimum duration of two weeks. The emotional state is characterized by: depressive mood, loss of interest or pleasure in almost all activities, accompanied by at least four symptoms of a list that includes: changes in appetite or weight, sleep disorders, lack of energy, feelings of guilt, difficulty thinking, concentrating or making decisions and recurrent thoughts of death or suicidal ideation (Halbreich, Alarcon, Calil, Douki, Gaszner, Jadresic & Sarache, 2007).

Much is known about the stress of medical education and its negative effects on resident well-being, depression, and burnout. Studies suggest these problems can originate in medical school and continue during residency and beyond. Depression in residents may be as high as 25%,*10* with burnout reported in up to 76%.

Studies suggest a temporal pattern in resident burnout and depression. First-year residents entering with high levels of well-being often experience high levels of burnout and depression by the end of internship. One study of recently graduated family physicians early in practice showed moderate emotional exhaustion and depersonalization, only slightly less than a comparable sample of family medicine residents.

Of the early practitioners, 48% indicated they were not highly likely to choose a medical career again. Studies suggest gender differences in residents' experience of distress; female residents have higher levels of anxiety and depression*14* while males experience higher levels of depersonalization.

1.2 Problem Statement

This systematic review will address the incidence and prevalence of resident physician depression,

sociodemographic and residency program factors associated with depression, the apparent consequences of depression in residents, the approaches to screening treatment that have been studied, and a discussion of possible barriers to the access and receipt of treatment.

Stress in medical education has been well documented, often with the primary focus on negative factors such as depression and burnout. Few studies have attempted to assess well-being mediating behaviors. This study describes the relationship between wellness behaviors and measures of well-being at the start of family medicine residency in Kingdom Saudi Arabia.

1.3 Methods and Producers

1.3.1 The study sample

A sample of (80) family medicine residents were asked to participate in the study; of these, 74 completed the survey (92.5% response rate). Respondents and non-respondents were compared on available demographic data, and no significant differences were found. Residents completed online surveys at the very beginning. And figure (1) shows the demographic characteristics of the study sample.

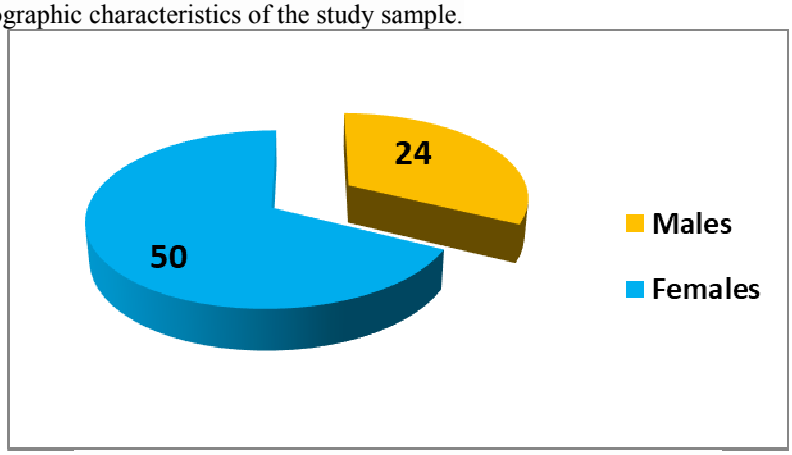

Figure (1): Demographic characteristics of the study sample.

1.3.2 Measures

The assessment battery was comprised of five measures. Four were established measures that assess dimensions of well-being: perceived stress, depression symptoms, burnout (emotional exhaustion, depersonalization), and life satisfaction. One measure, specifically developed for this study, assessed various wellness behaviors known to mediate the relationships between stress reactivity and health/mental health. Among these are moderate-intensity physical activity/exercise for at least 150 minutes a week, a nutritious diet (as measured by daily fruit and vegetable consumption), mind-body activities (eg, meditation, yoga, relaxation training), engagement in spiritual practices such as prayer, nurturing social relationships that have supportive and sustaining qualities, being outdoors in natural surroundings that have restorative effects on mental focus, and gaining restful sleep, as an inhibitor of hypothalamic-pituitary-adrenal (HPA) axis arousal. The 14-item questionnaire asked residents to rate how many days in a typical week they engaged in a specific wellness behavior. Additional items asked about tobacco use and use of prescription medication for mood, anxiety, stress, or sleep (yes/no), and about the number of alcoholic drinks consumed in a typical week (none, 1–3, 4–7, 8–14, and 14 or more).

1.3.3 Data Collection and Analysis

Data were collected directly from the residents online using an individualized link to an Internet-based survey website (Survey Monkey) in the first trimester of the first year of residency. Prior to accessing the assessments, residents completed an online Informed Consent form. Statistical analyses were conducted using SPSS v. 23.

Descriptive statistics are presented for the demographic characteristics, wellness behaviors, and well-being measures. Due to a lower frequency of occurrence, the four mind-body behaviors were coded as to whether the behavior was practiced at least 1–2 days per week or not at all. The dichotomously coded items were then summed to yield a total score for mind-body behaviors. Demographic (gender, age, marital status) differences on the well-being measures, and wellness behaviors were analyzed with ^{t} tests, chi-squares, or Pearson's correlation. Multiple regression analyses were performed to examine the relationship between individual wellness behaviors and each well-being measure. Demographic variables that had significant relationships with well-being measures were included in regression models. A logistic regression was performed to identify well-being and wellness behavior predictors of prescription medication use for females only. A burnout risk- level group variable was created as follows: high burnout at-risk group consists of individuals scoring in the high burnout group on both emotional exhaustion and depersonalization; low burnout risk group includes individuals scoring in the low burnout group on both scales. Remaining individuals were categorized as moderate burnout risk. One-way ANOVAs with posthoc Tukey tests were conducted to compare wellness behaviors and well-being measures

among burnout risk level groups.

1.4 Results

The findings indicate a clear subset of first-year residents who are very distressed. Twenty-three percent exceeded the cut point on the CES-D for risk of depression, nearly 14% were highly emotionally exhausted, and about 24% felt very detached from their patients and their job. Prior research demonstrates that high scores on either emotional exhaustion or depersonalization are indicative of clinically significant burnout.

These findings of burnout and depression in residents corroborate those in previous research on medical trainees. Still inadequately researched are the factors that may promote resident well-being and protect from depression and burnout. We found that restful sleep was associated with less stress, depression, burnout, and greater satisfaction with life. Interestingly, only one fifth of the sample reported at least 5 days of restful sleep. Also, those with higher levels of physical activity had lower levels of depression, depersonalization, and emotional exhaustion and a tendency toward increased satisfaction with life. Inclusion of these two wellness behaviors, coupled with time spent outdoors and frequency of alcohol consumption, accounted for close to 25% of the variance on these measures.

We found relatively low levels of alcohol use among first-year residents (81% no or less than three drinks per week). However, even minor alcohol consumption was associated with increased stress, depression, and burnout dimensions.

Despite no statistically significant gender differences on depression or perceived stress, the use of prescription medication was reported primarily by females (94.4% of medication users). Higher depersonalization and less time in nurturing relationships were associated with a greater likelihood of medication use for stress in females, which is consistent with research indicating that women tend to cope with stress through nurturing relationships;*39* thus their absence may result in greater medication usage. In our literature review, no other studies of physician and/or resident burnout reported findings about the use of prescription medications to manage stress, mood, or sleep. It is unknown whether there are gender differences in medication use or whether women are more comfortable in reporting such use. However, given reports of the prevalence of depression, sleep deprivation, and suicidality among physicians, use of prescription medications would be expected. Further exploration of this dimension is warranted, for both females and males, practicing physicians, and physicians-in-training.

More than half of the residents reported engaging in a mind-body technique at least 1 day per week with no significant association with any of the measures of well-being.

It is possible that these practices were not done with sufficient frequency or duration to make a difference or that residents who engaged in these activities had more severe distress that prompted their use of these. We did not find any significant associations of well-being with fruit and vegetable consumption. A multi-dimensional assessment of eating behaviors may be a better measure of diet-related stress mediation.

Depression and burnout among residents affect not only their own life quality but also the care they bring to others. Burnout is related to low job satisfaction and high rates of absenteeism and job turnover.*3* Further, residents with burnout are more likely to commit medical errors*40* and provide sub-optimal care. Yet there has been little research to guide residency programs in preventing or treating burnout, stress, and depression among residents. We highlight some health behaviors that show an association with levels of resident distress and well-being and may serve a mediating, protective function. Family medicine, with its values of relationship-centered care and family support can lead in developing curricular models that support wellness behaviors, creating a culture of training where residents “thrive” rather than just “survive.”

Proactive strategies to encourage and support adoption of wellness behaviors by residents may improve their ability to cope with postgraduate training demands and promote a lifelong commitment to self-care. Attention to self-care may translate to improved patient care through emphasis on health promotion as well as reduced medical errors.

1.5 Conclusions

Innovative curriculum and activities that focus on wellness behaviors and healthy lifestyle choices for physicians in training are needed. The ACGME mandate on implementation of duty hours for residents may show a positive effect in future generations of physicians. Family medicine programs can lead in creating additional institutional methodologies to support a culture of wellness for residents, faculty, and staff, thus promoting a lifelong commitment to self-care and an emphasis on prevention and health promotion for our patients.

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