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EVALUATING THE PREVALENCE OF DEPRESSION, SLEEP QUALITY AND SOCIAL PHOBIA AMONG TRAKYA UNIVERSITY HOSPITAL RESIDENTS

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ABSTRACT

Aims: The purpose of this study is to determine and evaluate the depression, sleep quality and social anxiety levels among medical residents at Trakya University Hospital.

Methods: This questionnaire study was conducted among 105 voluntary medical residents at Trakya University Hospital. Beck Depression Inventory, Pitssburgh Sleep Quality Index and Liebowitz Social Anxiety Scale was used to assess depression, sleep quality and social phobia. As for statistical analyses, chi-square, Kruskal Wallis and Mann Whitney Tests were used for analyzing categorical and continuous data.

Results: It was found out that 39% of them had depressive symptoms ranging from "mild depressive" to "very severe depressive", when 14.3% had poor sleep quality and 87.6% had social anxiety symptoms ranging from "moderate social anxiety" to "very severe social anxiety". Beck Depression Score for surgical residents was significantly higher than basic sciences residents, when female residents had a significantly higher score for social anxiety in comparison with male residents.

Conclusion: The prevalence of depression, poor sleep quality and social anxiety among residents was found to be higher than expected which might be due to stress, heavy workload and lifestyle of physicians.

Keywords: Depression, sleep quality, social anxiety disorder, medical residency

INTRODUCTION

Depression is an affective, multifactorial disorder characterized by loss of interest, poor concentration, feeling of sadness and loneliness, sleeping problems, loss of appetite or overeating and difficulties in social relations that lasts at least for two weeks (1). Besides that depression is a day-by-day raising mental disease. The World Health Organization (WHO) has ranked depression the 4th leading cause of disability and worldwide an estimated 350 million people are affected by this disorder (2). Women are more prone to depression than men, based on social conditions, stress factors, childbirth etc. The prevalence of depression in Turkey is 9.3%, when the rate is 12.4% for female and 5.9% for male (3).

Sleeping disorder does not only affect person at night, but also blocks physical regeneration and is characterized by mental and physical lack of comfort. Good sleep quality is associated with a wide range of positive outcomes such as better health, less daytime sleepiness, greater well-being and better psychological functioning (4). Poor sleep quality, along side depression, alcohol, caffeine, hectic work tempo and so forth, could also be the result of social relation problems. Poor sleep quality might lower performance levels, cause daytime sleepiness, affect concentration and ability to perform daily routines. Turkish research shows that 21.8% of the Turkish population have "poor sleep quality", 34% have difficulty falling asleep and are not able to sleep for long periods of time (5). The quality of sleep is very vital, especially for those who have jobs that require high levels of concentration. According to previous researches, healthcare workers who work in shifts tend to

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have sleep disorders and poor sleep quality (6).

Social anxiety disorder is a persistent fear of one or more social situations where embarrassment may occur and the fear of anxiety leads to refraining of actions (7). Social phobia can affect the person's daily routine, work, social activities including relationships and self-expression.

There are researches in literature about depression and sleep disorders among medical residents. But no study has been published which assesses all these three mental disorders by comparing them in clinical, surgical and basic sciences departments.

In this study it is aimed to evaluate and compare the depression, social anxiety and sleep quality rates among medical residents in clinical, surgical and basic sciences departments.

MATERIAL AND METHODS

This cross-sectional study was conducted among 105 voluntary medical residents in Trakya University Faculty of Medicine Hospital. Age, gender, residency year and departments were all queried in the questionnaire forms. Out of total 105 participants, 1 with missing gender, 53 were male and 51 were female where 17 were basic sciences residents, 57 were clinical residents and 31 were surgical residents. Mean age among residents was 28.85. Beck Depression Inventory (BDI), Pittsburgh Sleep Quality Index (PSQI) and Liebowitz Social Anxiety Scale (LSAS) were applied in this study.

Beck Depression Inventory was created by Aaron T. Beck in 1961 for measuring characteristic attitudes and symptoms of depression (8). Validity and reliability studies were performed by Hisli in 1989 (9). It is a 21 item self-assessment questionnaire using a four-point scale which ranges from 0 to 3, summing up to a total score between 0 and 63. Scores from 0 to 10 indicates "no depressive symptoms", where scores from 11 to 16 "mild depression", scores from 17 to 20 "bordering clinical depression", scores from 21 to 30 "moderate depression", scores from 31 to 40 "severe depression" and scores above 40 points "very severe depression" (8).

To evaluate subjective sleep quality, participants were asked to complete PSQI which is a self-report questionnaire that measures sleep quality over a 1-month time interval. This questionnaire includes 19 self-reported items which assesses seven scales of sleep: subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleeping medication and daytime dysfunction (10). The item summed to a total between 0 and 21. Scores from 0 to 4 indicates "good sleep quality", a total score of 5 and higher shows "poor sleep quality" (10). Validity and reliability studies were performed by Agargun et al. (11).

To determine social phobia among medical residents, LSAS was used. This questionnaire was developed by M. Liebowitz and includes 24 items, of which 12 items are focused on social interactions and the other 12 are related to performance (12). Both the fear of social interaction and the performance of several actions are rated on a four-point scale that 1 indicates "never avoided", 2 "occasionally avoided", 3 "often avoided" and 4 "usually avoided" for the performance and 1 "no fear", 2 "mild fear", 3 "moderate fear" and 4 "severe fear" for the social interactions. The reliability and validity study was conducted by Dilbaz and Guz (13).

As for statistical analyses, chi-square, Kruskal Wallis Test and Mann Whitney-U tests were used for analyzing categorical and continuous data. $P<0.05$ was considered as significant in these analyses.

RESULTS

This cross-sectional study was conducted among 105 voluntary medical residents in Trakya University Faculty of Medicine Hospital. Age, gender, residency year and departments were all queried in the questionnaire forms. Out of total 105 participants who had been working in Trakya University Hospital as residents, 53 (51%) were male and 51(49%) were female; out of those 17 (16.2%) were basic sciences residents, 57 (54.3%) were clinical residents and 31 were surgical (29.5%) residents. The mean age was found to be 28.85.

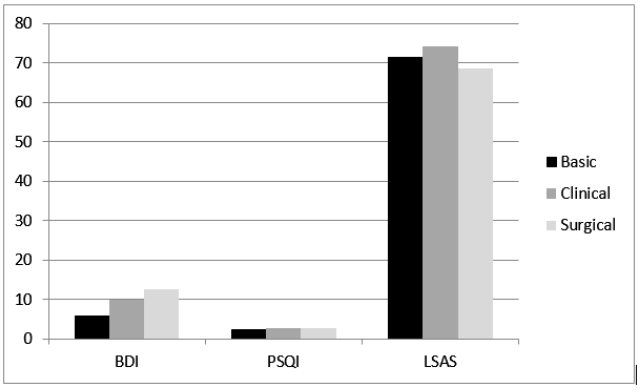

Figure 1: Mean scores of BDI, PSQI and LSAS among basic sciences, clinical and surgical departments

After applying BDI to residents it was found out that out of all, 64 (61%) of them were classified as "normal", when 21 (20%) of them were "mild depressive", 5 (4.8%) were "borderline depressive", 12 (11.4%) were "moderate depressive, 2 (1.9%) were "severe depressive" and 1 (1%) was "very severe depressive". The mean Beck depression score among all residents was 9.98 which indicated "normal" (Figure 1). According to our results, surgical residents had the highest Beck depression score of 12.61 as compared to basic sciences and clinical residents and was significantly higher than basic sciences residents (p=0.003).

The mean PSQI score among residents was 2.70 which indicated "good sleep quality". Out of all residents, 90 (85.7%) had "good sleep quality", when 15 (14.3%) had "poor sleep quality". Surgical residents had the highest PSQI score of 2.81 as compared to basic sciences and clinical residents.

The mean score of LSAS was found to be 72.12 which represented "marked social anxiety". Out of 105 participants, 13 (12.4%) were classified as "normal", when 28 (26.7%) had "moderate social anxiety", 36 (34.3%) had "marked social anxiety", 17 (16.2%) had "severe social anxiety" and 11 (10.5%) had "very severe social anxiety". It was observed that clinical residents had the highest mean score of 74.25 in LSAS; whereas the basic sciences and surgical residents showed lower score of 71.41 and 68.61, respectively.

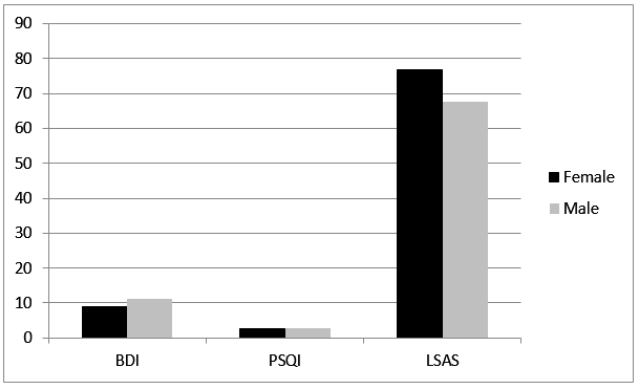

Figure 2: Mean scores of BDI, PSQI and LSAS among male and female residents

As for the Beck depression score, male residents had a higher mean score of 11.04 when compared to female residents (p=0.150) (Figure 1). According to our results, 27 (50.9%) of male residents and 36 (70.6%) of female residents were classified as "normal", when 14 (26.4%) of male residents and 7 (13.7%) of female residents were "mild depressive", 3 (5.7%) of males and 2 (3.9%) of females were "borderline depressive", 8 (15.1%) of males and 4 (7.8%) of females were "moderate depressive", 2 (3.9%) of females were "severe depressive" and there was no "very severe depressive" female resident, whereas there was no "severe depressive" male resident, except 1 (1.9%) was "very severe depressive".

The mean PSQI score for male residents was found to be 2.74 which indicates "good sleep quality", when it was found to be 2.69 for female residents as for "good sleep quality". Out of 53 male residents, 44 (83.0%) had "good sleep quality" and 9 (17.0%) had "poor sleep quality" whereas out of 51 female residents, 45 (88.2%) had "good sleep quality" when 6 (11.8%) of them had "poor sleep quality".

After applying LSAS to residents, the mean score of females was 76.78, whereas it was 67.89 in males, suggesting a significant higher value in female subjects (p=0.02). Out of 53 male residents, 9 (17.0%) were "normal", when 15 (28.3%) had "moderate social anxiety", 19 (35.8%) had "marked social anxiety", 8 (15.1%) had "severe social anxiety" and 2 (3.8%) had "very severe social anxiety". As for the female residents, 4 (7.8%) participants were "normal", when 12 (23.5%) had "moderate social anxiety", 17 (33.3%) had "marked social anxiety", 9 (17.6%) had "severe social anxiety" and 9 (17.6%) had "very severe social anxiety".

DISCUSSION

Depression has major effects on daily routine, bringing lack of concentration and performance along with it. Depression levels are increasing both around the world and in Turkey where the prevalence is 9.3% (3). According to our research, 14.2% of all residents were suffering from depression. Out of all, 45 (39.%) residents were not categorized as "normal". Based on studies, depression is common among healthcare workers (14). In our study, Beck Depression scores among surgical residents were significantly higher than basic sciences and clinical residents (p=0.003). Depression can withhold residents from doing their work properly since the work itself is so intense. Demanding levels of work and nightshifts could also cause mental and physical dysfunctions (15).

Sleeping disorder is common in Turkey (5). It causes disrupts the ability to carry out daily routines, cause daytime sleepiness as well as physical and mental

exhaustion. In our study, the mean PSQI score was 2.4 which indicated "good sleep quality". Surgical residents had the highest score with the mean of 2.81 as compared to basic sciences and clinical residents with 2.41 and 2.74, respectively.). It should be highlighted that considering long periods of operations might cause vital results for surgical residents where it may also affect clinical residents who are supposed to diagnose complex diseases based on patients' history. In other words, low levels of sleep quality of the residents due to stress and nightshifts, affect both physicians' and therefore patients' health (16, 17). It should be highlighted that considering long periods of operations might cause vital results for surgical residents where it may also affect clinical residents who are supposed to diagnose complex diseases based on patients' history.

Social anxiety disorder causes a severe limitation on person's actions. It might also cause disruption of social relationships and lack of communication. Physicians meet unfamiliar people every day, especially residents whom evaluate and examine patients often during visits. According to our study, the mean score for LSAS among all residents was 72.12 which indicated "marked social anxiety disorder". Especially in residency, physicians might feel distant towards social life and acquire anxiety. Social anxiety score of female residents was found significantly higher than male residents (p=0.020). As a result of the violence towards doctors with retrospect to social structure female residents are more prone to be worrisome. The results of our research could be high because of heavy workload and working-time. Social anxiety disorder might also obstruct a physician's communication with patients and the flow of information. This might increase workload further and cause complications.

Depression, sleep quality and social anxiety disorder have been more common in our research than expected and this causes thread to medical staff alongside patients. When we think about the etiology of psychological disorders, the heavy conditions of work and stress are vital factors for this vicious circle. For better physician-patient relationship it is imperative that working conditions are majorly improved.

Ethics Committee Approval: This study was approved by Scientific Researches Ethics Committee of Trakya University Medical Faculty.
Informed Consent: Written informed consent was obtained from the participants of this study.
Conflict of Interest: The authors declared no conflict of interest.
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