

Burnout and job satisfaction among psychiatrists in the Mental Health Service, Hamad Medical Corporation, Qatar

Nisha Kader^a, Bushra Elhusein^{b,*}, Nahid M. Elhassan^b, Majid Alabdulla^{a,d},
Samer Hammoudeh^c, Nur-Run Hussein^a

^a Consultant Psychiatrist, Mental Health Service, Hamad Medical Corporation, Doha, Qatar

^b Clinical Fellow, Consultation-Liaison Psychiatry, Mental Health Service, Hamad Medical Corporation, Doha, Qatar

^c Medical Research Center, Research Affairs, Hamad Medical Corporation, Doha, Qatar

^d Clinical Assistant Professor-College of Medicine, Qatar University, Qatar

ARTICLE INFO

Keywords:

Burnout
Depersonalization
Emotional exhaustion
Job satisfaction
Psychiatrists

ABSTRACT

Background: Job satisfaction is a critical concern among medical staff and directly affects patient safety and quality of health care services. Burnout has been reported to be correlated with job satisfaction.

Aims: This study aimed to determine the prevalence of burnout and level of job satisfaction among psychiatrists working in the Mental Health Service, Hamad Medical Corporation, Qatar, and examine correlations among socio-demographic variables, burnout, and job satisfaction.

Method: A cross-sectional survey was conducted using a socio-demographic questionnaire, the Maslach Burnout Inventory (MBI), and the Job Descriptive Index (JDI).

Results: One-third of psychiatrists reported high levels of emotional exhaustion, with a similar proportion describing low levels of personal accomplishment. Less than 20 % demonstrated high levels of depersonalization. Trainees were more burned out than senior psychiatrists. Opportunities for promotion was the only factor with which the majority of psychiatrists were not satisfied.

Conclusions: The prevalence of high burnout in psychiatrists remains lower in Qatar than in other countries. Lower levels of satisfaction with co-workers, work, supervision, opportunities for promotion, and the job in general increased emotional exhaustion and depersonalization. Interestingly, satisfaction with salary did not have a significant effect on burnout.

1. Introduction

1.1. Burnout

Burnout became increasingly recognized in the 1970s to describe a state of emotional, physical, and mental exhaustion caused by excessive and chronic stress. According to Lee and Ashforth (1996), burnout is a syndrome of emotional exhaustion (tiredness; fewer emotional resources), depersonalization (development of negative, cynical attitudes; impersonal treatment of clients), and feelings of a lack of personal accomplishment (thoughts of incompetence and inadequacy). Burnout is highly prevalent among health care providers (Morse et al., 2012); up to 67 % of mental health care providers are estimated to experience high levels of burnout.

A study by Ramirez et al. (1996) reported that the prevalence of

psychiatric morbidity among hospital consultants (gastroenterologists, surgeons, radiologists, and oncologists) was approximately 27 %. Burnout and psychiatric morbidity were associated with feeling overloaded, feeling poorly managed, having inadequate resources, and being exposed to patient suffering. Burnout was also associated with low satisfaction in three distinct areas: relationships with patients, relatives, and staff; professional status/esteem; and intellectual stimulation.

Mental illness, burnout, and suicidal thoughts pose a higher risk for psychiatrists than other health professionals (Snibbe et al., 1989), perhaps due to the nature of their work and the populations they serve (Kumar et al., 2007). Interacting with patients who may be traumatized, suicidal, homicidal, hostile, or unappreciative can lead to psychiatrists experiencing helplessness and mental exhaustion.

Several studies showed that burnout rates were rising. One U.S. study reported that 54.4 % of physicians and other workers reported at least

* Corresponding author at: Consultation-Liaison Psychiatry, Mental Health Service, Hamad Medical Corporation, P.O Box 3050, Doha, Qatar.

E-mail address: drbushra1@hotmail.com (B. Elhusein).

<https://doi.org/10.1016/j.ajp.2021.102619>

Received 14 January 2021; Received in revised form 4 February 2021; Accepted 18 February 2021

Available online 25 February 2021

1876-2018/© 2021 The Author(s). Published by Elsevier B.V. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

one symptom of burnout in 2014 compared with 45.5 % in 2011 (Shanafelt et al., 2015). Another study in Thailand reported that burnout among psychiatrists increased dramatically from 17.1 % in 2011 to 49.3 % in 2019 (Nimmawitt et al., 2020).

Leaving burnout unaddressed in psychiatrists can lead to serious consequences. Psychiatrists are vulnerable to mental suffering, psychiatric co-morbidities (depression, anxiety, and substance abuse), and medical errors; these factors can potentially lead to diminished professionalism and disruption of personal and family life (Shanafelt, 2009). Further, when psychiatrists experience burnout with other risk factors, they become more susceptible to suicidal thoughts and suicide (Spickard et al., 2002). Ultimately, burnout among psychiatrists can have a negative impact on the quality of care provided to patients.

1.2. Job satisfaction

Job satisfaction is defined as the positive feelings or emotions that connect workers with their role. An employee experiences job satisfaction through job stability, career development and growth, and a comfortable work-life balance. Job stress leads to burnout by diminishing people's capacity to fulfill work demands. In comparison, a manageable workload provides opportunities to improve existing skills as well as become successful in new areas of activity (Maslach and Leiter, 2016).

Job satisfaction is a protective factor against burnout and negative consequences of stress at work (Kumar, 2008). Among doctors, job satisfaction is a vital concern, as it directly affects patient safety and quality of health care services (Wallace et al., 2009). Burnout is negatively correlated with job satisfaction, staff support, and involvement in one's organization (Melchior et al., 1997). However, according to Kumar et al. (2007), despite experiencing moderate or high levels of burnout, most psychiatrists continued to experience high levels of job satisfaction.

1.3. The present study

Abdulla et al. (2011) explored the prevalence of burnout in primary health care physicians in Qatar and reported that 16 % of general practitioners had burnout syndrome. In a recent systematic review (Chemali et al., 2019), 54 articles examined burnout among physicians in Middle Eastern countries and revealed that high burnout levels were reported.

However, this study is the first on burnout and job satisfaction among psychiatrists in Qatar. Further, an extensive search through PubMed, Web of Science, and PsycINFO using search terms reflecting burnout and job satisfaction in Middle Eastern countries did not yield any studies comparing burnout and job satisfaction among trainees and senior psychiatrists using the Maslach Burnout Inventory (MBI) and the Job Descriptive Index (JDI).

2. Methods

2.1. Participants

A cross-sectional survey was conducted among psychiatrists of all grades in the Mental Health Service, Hamad Medical Corporation (HMC), which is the primary provider of specialized mental health service and treatment in Qatar. The Service provides a range of acute and community-based services, including outpatient clinics, inpatient care, consultation-liaison, and emergency services across the country.

The potential participants were the total number of psychiatrists working in the mental health service at HMC at the time of conducting this study ($N = 99$), including residents, fellows, specialists, consultants, and senior consultants. Approval for the study was obtained from the Medical Research Centre (approval number: MRC-01-18-463).

The MBI, JDI, and socio-demographic questionnaire were distributed

to participants. None of the questionnaires contained any personally identifiable data, every possible measure was undertaken to ensure confidentiality and privacy, and all participants provided written informed consent.

2.2. Measures

The MBI assessed burnout. It is a 22-item self-reported questionnaire that is internationally recognized, validated, and widely used to measure burnout in relation to occupational stress (Bakker et al., 2002). It has three subscales used to measure emotional exhaustion (EE), depersonalization (DP), and feelings of a lack of personal accomplishment (PA).

The JDI was used to measure job satisfaction and comprises five facets: satisfaction with co-workers, the work itself, pay, promotion opportunities, and supervision. It also includes job in general (JIG), which is considered a global measure of job satisfaction.

A socio-demographic questionnaire recorded age, gender, marital status, number of children, whether they were living with family, current job title, and years spent in their current job. Job designation was categorized into two groups: trainees (residents and fellows) and senior/experienced psychiatrists (specialists, consultants, and senior consultants).

2.3. Statistical analysis

Statistical analysis was conducted using the SPSS, version 22. Demographic variables were analyzed using descriptive statistics and presented as frequencies and valid percentages if categorical or as means \pm standard deviations (*SDs*) if continuous with normal distribution; otherwise, variables were presented as medians and ranges. Variables related to burnout and job satisfaction were presented as means \pm *SDs*.

T-tests or one-way analyses of variance were used to compare these factors against demographic variables. Chi-square tests were used to determine relationships between categorical variables. Correlation analyses and linear regression were used to examine associations between burnout variables and job satisfaction variables. Finally, a logistic regression model was constructed using demographic variables to explore their relationship with burnout and job satisfaction variables.

3. Results

3.1. Socio-demographic data

Of the 99 participants selected, 73 responded, giving a response rate of 73.7 %. The majority of participants were men ($n = 43$; 58.9 %), between the ages of 25–34 years ($n = 41$; 57.7 %), married ($n = 55$; 76.4 %), and living with their families ($n = 59$; 81.9 %). One-third of the participants did not have children ($n = 24$; 33.3 %). A total of 63.0 % ($n = 46$) of the respondents were trainees. (Table 1).

3.2. Burnout

The categorization of subscale scores as high, medium, or low was based on the MBI scoring guidelines. On the EE subscale, 32 (43.8 %) respondents scored low (score range 0–16), 20 (27.4 %) scored moderate (17–26), and 21 (28.8 %) scored high (≥ 27). On the DP subscale, 49 (67.1 %) scored low (0–6), 11 (15.1 %) scored moderate (7–12), and 13 (17.8 %) scored high (≥ 13). On the PA subscale, 22 (30.1 %) scored low (0–31), 29 (39.7 %) scored moderate (32–38), and 22 (30.1 %) scored high (≥ 39).

The mean (*SD*) MBI subscale scores are provided in Table 2. The socio-demographic variables included were age, gender, marital status, number of children, whether they were living with family, job designation, and the number of years working in the hospital. Linear regression analyses were conducted to ascertain whether there was any correlation between socio-demographic variables and the three

Table 1
Descriptive statistics of the study population.

Socio-demographic variables	Frequency (%)
Age (years)	
< 25	0
25–34	41 (57.7 %)
35–44	16 (22.5 %)
45–60	8 (11.3 %)
> 60	6 (8.5 %)
Gender	
Male	43 (58.9 %)
Female	30 (41.1 %)
Marital status	16 (22.2 %)
Single	
Married	55 (76.4 %)
Divorced	1 (1.4 %)
Number of children	
None	24 (33.3 %)
≤ 2	24 (33.3 %)
3–4	20 (27.8 %)
> 4	4 (5.6 %)
Living with family	
Yes	59 (81.9 %)
No	13 (18.1 %)
Job designation	
Trainee	46 (63 %)
Senior psychiatrist	27 (37 %)
Years working at HMC	
0–3	33 (45.2 %)
4–6	21 (28.8 %)
7–10	11 (15.1 %)
> 10	8 (11 %)

Table 2
Burnout and job satisfaction scores.

Variables	Mean ± standard deviation; median (range)
Burnout variables	
Emotional exhaustion	20.16 ± 11.799; 19 (2–47)
Depersonalization	5.78 ± 6.458; 4 (0–26)
Personal accomplishment	35.22 ± 6.715; 36 (19–48)
Job satisfaction variables	
Job in general	43.23 ± 10.958; 47 (9–54)
People on present job	34.92 ± 14.853; 39 (0–54)
Work on present job	37.04 ± 14.727; 42 (0–45)
Pay	41.14 ± 15.577; 48 (0–54)
Opportunities for promotion	16.58 ± 16.085; 12 (0–54)
Supervision	36.38 ± 14.064; 42 (0–54)

subscales of the MBI.

High scores on the EE and DP subscales and a low score on the PA subscale indicate a high degree of burnout. For the comparative analysis, those with low and moderate EE and DP scores were combined into one group, and those with high scores were considered the second group. Those with moderate and high scores were combined into one group for the PA subscale, while those with low scores were considered the second group. Logistic regression analyses were performed to determine significant risk factors for high EE and DP and low PA.

3.2.1. Emotional exhaustion

Approximately one-third ($n = 21$; 28.8 %) of the respondents had high EE scores, and the majority ($n = 16$; 76.2 %) were in the 25–34 age group. Marital status ($p = 0.001$) and the number of children ($p = 0.005$) were statistically significant predictors for EE. A total of 62.5 % ($n = 10$) of respondents who were single had high EE scores, compared to only 20 % ($n = 11$) of married respondents. The majority ($n = 13$; 61.9 %) of respondents with high EE scores did not have children.

Job designation ($p = 0.044$) was also associated with high EE scores. The majority ($n = 17$; 81 %) of respondents who had high EE scores were trainees; 37 % ($n = 17$) of trainees had high EE scores, compared to 14.8 % ($n = 4$) of experienced psychiatrists.

3.2.2. Depersonalization

Only 13 (17.8 %) respondents had high DP scores. Variables that had a statistically significant association with DP were the number of children ($p = 0.010$), living with family ($p = 0.035$), and job designation ($p = 0.002$).

The majority ($n = 11$; 84.6 %) of respondents who scored high on DP were aged 25–34. The majority ($n = 9$; 69.2 %) of respondents with high DP scores did not have children. A total of 28.3 % ($n = 13$) of trainees had high DP scores. All respondents who scored high on DP were trainees and had no children ($n = 9$; 69.2 %) or ≤2 children ($n = 4$; 30.8 %). Only 13.6 % ($n = 8$) of those who lived with family had high DP scores, compared to 38.5 % ($n = 5$) of those who did not live with family.

3.2.3. Personal accomplishment

Most of the respondents had either moderate or high PA scores (overall $n = 51$; 69.9 %), while 22 (30.1 %) had low PA scores. The only factor that had a statistically significant association with PA was job designation ($p = 0.008$). However, this was not a significant predictor of low PA ($p = 0.097$). A total of 37 % ($n = 17$) of the trainees had low PA, compared to 18.5 % ($n = 5$) of senior psychiatrists (Fig. 1).

3.3. Job satisfaction

JDI facet scores and a JIG score were calculated by summing the values of the items in each JDI facet and JIG. Overall scores for the work, supervision, and co-worker facets of the JDI and JIG were compiled by summing the values of the 18 items. Two of the JDI facets, pay, and promotion, have only nine items. For these two facets, the final scores were calculated by summing the values in each facet and doubling the sum to produce final scores. This doubling equalized the lengths of all JDI and JIG scales. Hence, the range of scores on each scale was 0–54. Higher scores indicated higher job satisfaction.

The mean (*SD*) JIG score was 43.23 (10.958). The mean (*SD*) JDI scores for the co-worker facet was 34.92 (14.853), work facet was 37.04 (14.727), pay facet was 41.14 (15.577), supervision facet was 36.38 (14.064), and opportunities for promotion facet was 16.58 (16.085). The majority of respondents were satisfied with JIG, work on the present job, co-workers, pay, and supervision. However, respondents were less satisfied with opportunities for promotion.

Linear regression analyses were performed to examine correlations between socio-demographic variables, JIG, and JDI facets. There were no statistically significant correlations between socio-demographic variables and JIG. There was no statistically significant correlation between socio-demographic variables and the work and supervision facets of the JDI.

The number of years working at HMC ($p = 0.001$) was the only variable with a statistically significant association with the co-worker facet. Those who had worked at HMC for 0–3 years and >10 years were more satisfied with their co-workers. The only variable with a significant association with the pay facet was living with family ($p = 0.057$). Those who lived with family were more satisfied with the pay received in their current job. The only variable with a statistically significant association with the opportunities for promotion facet of the JDI was the number of years working at HMC ($p = 0.007$). Those who had worked at HMC for 0–3 years were more satisfied with promotion opportunities (Fig. 2).

3.4. Burnout and job satisfaction

The association between the three burnout subscales and six job satisfaction variables was analyzed using Pearson’s correlation.

3.4.1. Emotional exhaustion vs. Job satisfaction

EE had an inverse association with JIG ($r = -0.490$; $p < 0.001$), co-workers ($r = -0.504$; $p = 0.000$), work ($r = -0.409$; $p < 0.001$), opportunities for promotion ($r = -0.295$; $p = 0.011$), and supervision ($r =$

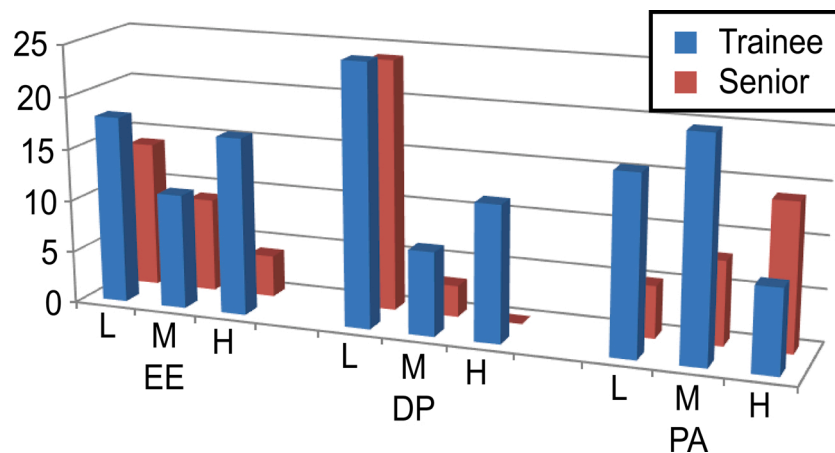


Fig. 1. EE, DP, and PA among trainees and senior psychiatrists.

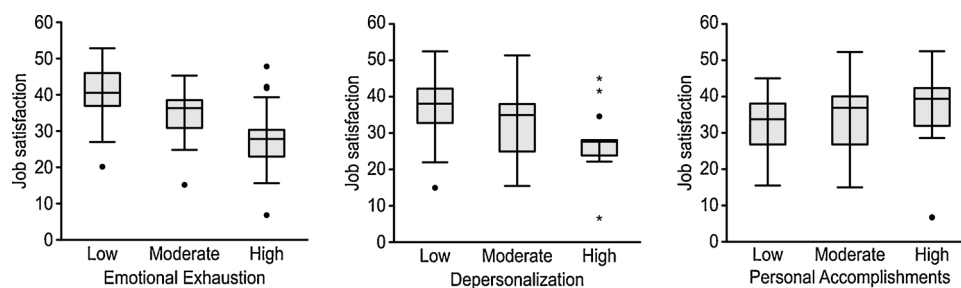


Fig. 2. Job satisfaction in relation to EE, DP, and PA.

-0.386; $p = 0.001$). Those who were less satisfied with JIG, co-workers, work, opportunities for promotion, and supervision had higher EE.

3.4.2. Depersonalization vs. Job satisfaction

DP had an inverse association with JIG ($r = -0.362$; $p = 0.002$), co-workers ($r = -0.350$; $p = 0.002$), work ($r = -0.304$; $p = 0.009$), opportunities for promotion ($r = -0.256$; $p = 0.029$), and supervision ($r = -0.418$; $p < 0.001$). Those who had high depersonalization were less satisfied with JIG, co-workers, work, opportunities for promotion, and supervision.

3.4.3. Personal accomplishment vs. Job satisfaction

PA had a positive association with JIG ($r = 0.230$; $p = 0.050$), co-workers ($r = 0.250$; $p = 0.033$), and work ($r = 0.326$; $p = 0.005$). Those who had high PA were better satisfied with JIG, co-workers, and work.

3.5. Regression analysis of job satisfaction variables and burnout subscales

A multiple regression analysis was conducted to investigate whether job satisfaction variables significantly predicted burnout scores. The results indicated that the model explained 37.5 % of the variance and was a significant predictor of EE ($F(6,66) = 6.594$; $p < 0.001$). JIG ($B = -0.310$, $p = 0.012$) and co-workers ($B = -0.250$, $p = 0.057$) significantly contributed to EE.

For DP, the model explained 25.2 % of the variance and was a significant predictor ($F(6,66) = 3.711$; $p = 0.003$). Supervision ($B = -0.284$, $p = 0.039$) was the only factor that significantly contributed to DP.

For PA, the model explained 19 % of the variance and was a significant predictor ($F(6,66) = 2.587$; $P = 0.026$). Work on the present job ($B = 0.314$, $p = 0.028$) was the only factor that significantly contributed to

PA.

4. Discussion

Growing scientific evidence indicates that the level of burnout is more prevalent among psychiatrists than among doctors in other specialties (Moore and Cooper, 1996). This study showed that burnout was generally lower among psychiatrists working in the Mental Health Services in HMC, Qatar, than doctors in similar international studies (Kumar et al., 2007).

There is a strong relation between psychiatrists' working hours per week and the DP sub-scale, this was found in a recent study from Egypt, it also indicated that the burnout rate among psychiatrists of Al-Abbassia Hospital was higher than in western countries, marriage and sleeping in the home have protective effects. Furthermore, there was a significant association between the high number of working hours per week and the quality of the relationship with seniors and burnout. (Abu zied et al., 2020).

The effect of work-hour limitations on residents has been widely researched as an important environmental consideration in the development of burnout (IsHak et al., 2009; Martini et al., 2006).

Marital status and number of children were found to be statistically significant factors for EE. A total of 62.5 % of respondents who were single had high EE scores, compared to only 20 % of married respondents. The majority of respondents with high EE scores did not have children. Past studies have examined marriage and parenting in relation to burnout. (Martini et al., 2004) showed that 65.2 % of single, divorced, or unmarried residents met the criteria for burnout, compared with only 40.0 % of married individuals. Other studies reported no correlation between marriage and burnout (Shanafelt et al., 2002). Although it might be presumed that having the added responsibility of caring for children would add to one's potential for burnout, research has shown that parenting can act as a protective factor against burnout (Maslach

and Leiter, 2016), which was reflected in this study as well.

Trainees experience higher work-related stresses and burnout compared to consultants. A study in the United Kingdom found that even when consultants and trainees have similar job satisfaction levels, trainees had more symptoms of burnout (West et al., 2018). In the present study, we found that the highest DP rate was found in trainees and those without children, despite being the most satisfied by the supervision they were receiving.

Supportive colleagues and collegiality have been cited as important factors in increasing satisfaction among psychiatrists (Guthrie et al., 1999; Lepnurm et al., 2006). This was reinforced in the present study, where high levels of satisfaction in working with others were correlated to all components of the MBI. Perceived support from peers or family can be necessary for reducing work-related stresses.

Overall, high job satisfaction is strongly associated with interest in work, career growth and advancement opportunities, the ability to work at one's own discretion, and the ability to communicate effectively and comfortably with supervisors and coworkers (Koreki et al., 2015).

In conclusion, recognizing the burnout process and associated risk factors early is the first critical step in organizing sufficient internal and external support needed to address the problem. Positive motivational factors, such as work well-done recognition, promotions, and wage improvement, can also go a long way to protecting against burnout. Educational services aimed at educating physicians on burnout and offering access to tools to teach more adaptive coping strategies are essential in all health care settings.

4.1. Limitations

As the present study was cross-sectional, it could only highlight observations and possible associations but cannot demonstrate causality. In addition, this survey relied on self-reporting, but did use well-established and validated instruments. However, the JDI, which was based on the business sector, may not fully encapsulate the mental health sector's issues. The JDI also does not appear to capture organizational factors, such as management or leadership factors, which may impact job satisfaction.

Although the response rate was high, we were unable to compare the respondents' socio-demographic data with non-respondents. It is possible that some of the non-respondents were burned out or dissatisfied, which caused them not to respond to the present study. This may be addressed in future studies.

Financial disclosure

This research received no specific grant from any funding agency, commercial or not for profit sectors.

Funding

This research received no specific grant from any funding agency, commercial or not for profit sectors.

Author contributions

NK is the principle investigator who designed the study and participated in manuscript writing and literature review; BE performed the literature review, data collection, and wrote the manuscript, NE analyzed the data and wrote the results; MA performed the literature review and participated in manuscript writing; SH contributed to data analysis, interpretation of the results, and critically revised the manuscript; NH performed the literature review and data collection, and contributed in analyzing the results and writing the manuscript

Data sharing statement

The data that support the findings of this study are available from the principal investigator (NK) upon reasonable request.

Declaration of Competing Interest

The authors have no competing interests to declare.

Acknowledgments

We want to thank all mental health service doctors who participated in this project. We want to extend our deep appreciation to the Medical Research Centre for their continuous and unlimited support. Open Access funding provided by the Qatar National Library (Abdulla et al., 2011; Abu zied et al., 2020; Bakker et al., 2002; Chemali et al., 2019; Fleury et al., 2017; Guthrie et al., 1999; IsHak et al., 2009; Jiang et al., 2018; Koreki et al., 2015; Kumar, 2008; Kumar et al., 2007; Lee and Ashforth, 1996; Lepnurm et al., 2006; Martini et al., 2004, 2006; Maslach and Leiter, 2016; Melchior et al., 1997; Moore and Cooper, 1996; Morse et al., 2012; Nimmawitt et al., 2020; Ramirez et al., 1996; Shanafelt, 2009; Shanafelt et al., 2002, 2015; Snibbe et al., 1989; Spickard et al., 2002; Wallace et al., 2009; West et al., 2018).

References

- Abdulla, L., Al-Qatani, D.M., Al-Kuwari, M.G., 2011. Prevalence and determinants of burnout syndrome among primary healthcare physicians in Qatar. *S. Afr. Fam. Pract.* (2004) 53 (4), 380–383. <https://doi.org/10.1080/20786204.2011.10874118>.
- Abu zied, M., Fekry, M., Mohsen, N., Morsy, M., El Serafy, D., Salah, M., 2020. Burnout syndrome among psychiatrists in Egyptian mental health hospital. *Middle East Curr Psychiatry*. 27 (1), 25. <https://doi.org/10.1186/s43045-020-00028-x>.
- Bakker, A.B., Demerouti, E., Schaufeli, W.B., 2002. Validation of the maslach burnout inventory — general survey: an internet study. *Anxiety Stress Coping* 15 (3), 245–260. <https://doi.org/10.1080/1061580021000020716>.
- Chemali, Z., Ezzeddine, F.L., Gelaye, B., Dossett, M.L., Salameh, J., Bizri, M., Dubale, B., Fricchione, G., 2019. Burnout among healthcare providers in the complex environment of the Middle East: a systematic review. *BMC Public Health* 19 (1), 1337. <https://doi.org/10.1186/s12889-019-7713-1>.
- Fleury, M.-J., Grenier, G., Bamvita, J.-M., 2017. Job satisfaction among mental healthcare professionals: the respective contributions of professional characteristics, team attributes, team processes, and team emergent states. *SAGE Open Med.* 5 <https://doi.org/10.1177/2050312117745222>, 2050312117745222. Available from: <https://doi.org/10.1177/2050312117745222>.
- Guthrie, E., Tattan, T., Williams, E., Black, D., Bacliocotti, H., 1999. Sources of stress, psychological distress and burnout in psychiatrists: comparison of junior doctors, senior registrars and consultants. *Psychiatr. Bull.* (2014) 23 (4), 207–212. <https://doi.org/10.1192/pb.23.4.207>.
- IsHak, W.W., Lederer, S., Mandili, C., Nikravesh, R., Seligman, L., Vasa, M., Ogunyemi, D., Bernstein, C.A., 2009. Burnout during residency training: a literature review. *J. Grad. Med. Educ.* 1 (2), 236–242. <https://doi.org/10.4300/JGME-D-09-00054.1>.
- Jiang, F., Hu, L., Rakofsky, J., Liu, T., Wu, S., Zhao, P., Hu, G., Wan, X., Liu, H., Liu, Y., Tang, Y.-L., 2018. Sociodemographic characteristics and job satisfaction of psychiatrists in China: results from the first nationwide survey. *Psychiatr. Serv.* 69 (12), 1245–1251. <https://doi.org/10.1176/appi.ps.201800197>.
- Koreki, A., Nakagawa, A., Abe, A., Ikeuchi, H., Okubo, A., Oguri, A., Orimo, K., Katayama, N., Sato, H., Shikimoto, R., Nishiyama, G., Nogami, W., Haki, K., Hayashi, T., Fukagawa, Y., Funaki, K., Matsuzawa, M., Matsumoto, A., Mimura, M., Keio Psychiatry Resident Class of 2008, 2015. Mental health of Japanese psychiatrists: the relationship among level of occupational stress, satisfaction and depressive symptoms. *BMC Res. Notes* 8, 96. <https://doi.org/10.1186/s13104-015-1054-7>.
- Kumar, S., 2008. Job satisfaction among psychiatrists: an urgent area for research. *Ment Health Rev J.* 13 (3), 16–23. <https://doi.org/10.1108/13619322200800018>.
- Kumar, S., Fischer, J., Robinson, E., Hatcher, S., Bhagat, R.N., 2007. Burnout and job satisfaction in New Zealand psychiatrists: a national study. *Int. J. Soc. Psychiatry* 53 (4), 306–316. <https://doi.org/10.1177/0020764006074534>.
- Lee, R.T., Ashforth, B.E., 1996. A meta-analytic examination of the correlates of the three dimensions of job burnout. *J. Appl. Psychol.* 81 (2), 123–133. <https://doi.org/10.1037/0021-9010.81.2.123>.
- Lepnurm, R., Danielson, D., Dobson, R., Keegan, D., 2006. Cornerstones of career satisfaction in medicine. *Can. J. Psychiatry* 51 (8), 512–522. <https://doi.org/10.1177/070674370605100806>.
- Martini, S., Arfken, C.L., Churchill, A., Valon, R., 2004. Burnout comparison among residents in different medical specialties. *Acad. Psychiatry* 28, 240–242. <https://doi.org/10.1176/appi.ap.28.3.240>.

- Martini, S., Arfken, C.L., Balon, R., 2006. Comparison of burnout among medical residents before and after the implementation of work hours limits. *Acad. Psychiatry* 30, 352–355. <https://doi.org/10.1176/appi.ap.30.4.352>.
- Maslach, C., Leiter, M.P., 2016. Understanding the burnout experience: recent research and its implications for psychiatry. *World Psychiatry* 15 (2), 103–111. <https://doi.org/10.1002/wps.20311>.
- Melchior, M.E.W., Bours, G.J.J.W., Schmitz, P., Wittich, Y., 1997. Burnout in psychiatric nursing: a meta-analysis of related variables. *J. Psychiatr. Ment. Health Nurs.* 4 (3), 193–201. <https://doi.org/10.1046/j.1365-2850.1997.00057.x>.
- Moore, K.A., Cooper, C.L., 1996. Stress in mental health professionals: a theoretical overview. *Int. J. Soc. Psychiatry* 42 (2), 82–89. <https://doi.org/10.1177/002076409604200202>.
- Morse, G., Salyers, M.P., Rollins, A.L., Monroe-DeVita, M., Pfahler, C., 2012. Burnout in mental health services: a review of the problem and its remediation. *Adm. Policy Ment. Health* 39, 341–352. <https://doi.org/10.1007/s10488-011-0352-1>.
- Nimmawitt, N., Wannarit, K., Pariwatcharakul, P., 2020. Thai psychiatrists and burnout: a national survey. *PLoS One* 15 (4). <https://doi.org/10.1371/journal.pone.0230204> e0230204.
- Ramirez, A.J., Graham, J., Richards, M.A., Cull, A., Gregory, W.M., 1996. Mental health of hospital consultants: the effects of stress and satisfaction at work. *Lancet*. 347 (9003), 724–728. [https://doi.org/10.1016/S0140-6736\(96\)90077-X](https://doi.org/10.1016/S0140-6736(96)90077-X).
- Shanafelt, T.D., 2009. Enhancing meaning in work: a prescription for preventing physician burnout and promoting patient-centered care. *JAMA*. 302 (12), 1338–1340. <https://doi.org/10.1001/jama.2009.1385>.
- Shanafelt, T.D., Bradley, K.A., Wipf, J.E., Back, A.L., 2002. Burnout and self-reported patient care in an internal medicine residency program. *Ann. Intern. Med.* 136, 358–367. <https://doi.org/10.7326/0003-4819-136-5-200203050-00008>.
- Shanafelt, T.D., Hasan, O., Dyrbye, L.N., Sinsky, C., Satele, D., Sloan, J., West, C.P., 2015. Changes in burnout and satisfaction with work-life balance in physicians and the general US working population between 2011 and 2014. *Mayo Clin. Proc.* 90 (12), 1600–1613. <https://doi.org/10.1016/j.mayocp.2015.08.023>.
- Snibbe, J.R., Radcliffe, T., Weisberger, C., Richards, M., Kelly, J., 1989. Burnout among primary care physicians and mental health professionals in a managed health care setting. *Psychol. Rep.* 65 (3), 775–780. <https://doi.org/10.2466/pr0.1989.65.3.775>.
- Spickard, A.J., Gabbe, S.G., Christensen, J.F., 2002. Mid-career burnout in generalist and specialist physicians. *JAMA*. 288 (12), 1447–1450. <https://doi.org/10.1001/jama.288.12.1447>.
- Wallace, J.E., Lemaire, J.B., Ghali, W.A., 2009. Physician wellness: a missing quality indicator. *Lancet*. 374 (9702), 1714–1721. [https://doi.org/10.1016/S0140-6736\(09\)61424-0](https://doi.org/10.1016/S0140-6736(09)61424-0).
- West, C.P., Dyrbye, L.N., Shanafelt, T.D., 2018. Physician burnout: contributors, consequences and solutions. *J. Intern. Med.* 283 (6), 516–529. <https://doi.org/10.1111/joim.12752>.