

STUDY OF BURNOUT SYNDROME AMONG HEALTHCARE PROFESSIONALS WORKING DURING THE PANDEMIC PERIOD ‘COVID-19’

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KEYWORDS

Burnout, Copenhagen Burnout Inventory, Hospital of Khan-Uul District

Revised: 2023/08/06

Accepted: 2023/10/20

Revised: 2023/08/21

Published: 2024/01/10

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ABSTRACT

Background: There are lots of risk factors that can cause negative syndrome such as burnout. Burnout harms the health and well-being of healthcare professionals as this is important.⁶ Therefore, we are studying the current state of burnout (BO) of healthcare employees.

Methods: We used a validated questionnaire of the Copenhagen burnout inventory (CBI) to assess the burnout was measured in three scales: personal burnout, work-related burnout, and client-related burnout of healthcare workers who worked in the Hospital of

Khan-Uul District.¹⁻³ We used descriptive analysis to estimate the BO scores across demographic categories.

Results: A total of 67 participants were taken part in this study. 52.2% of the participants had a higher risk for personal burnout, 58.2% of them had work-related burnout, and healthcare workers with client-related burnout accounted for 53.7%.

Conclusion: Compared with the prior studies of hospital staff in other countries, had relatively higher BO rates, with personal, work-related, and client-related BO.⁸

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1. BACKGROUND

An indefinite outbreak of pneumonia in Wuhan, Hubei Province, China, was first reported on the 31st of December, 2019 at the WHO Office in China. The International Health Emergency Committee declared an outbreak of the disease on the 30th of January, 2020. The World Health Organization declared COVID-19 as a pandemic on March 11.⁹

Measures were taken to control communicable diseases and imposed strict quarantine to prevent the spread of the disease in Mongolia.⁵ However, Covid-19 infection rapidly spread among the population in Mongolia even it led to the heavy workload of hospital staff and the onset of burnout.⁷ Therefore, the following study was conducted to determine the prevalence of work-related burnout among physicians and medical staff treating patients with coronavirus infection.

2. MATERIALS AND METHODS

The study was conducted under a random sampling method using a one-shot model from 67 hospital employees in the Khan-Uul district. Burnout syndrome was assessed by the Copenhagen Standard Questionnaire. The Copenhagen Questionnaire to detect burnout syndrome is characterized by three independent indicators such as personal burnout, work-related burnout, and client-related burnout.

All questions are answered with a corresponding Likert score of 5 (1 = never, 2 = rare, 3 = sometimes, 4 = usual, 5 = always), or the results are processed according to the statistics. The corresponding answer was converted again into a score of 25-50-75-100 and determined by the GPA of the sum of all the answers.

Cronbach's alpha of the reliability of the three indicators of the Copenhagen standard questionnaire, which assessed burnout syndrome among healthcare professionals surveyed, was 0.95.

The results were processed using SPSS 20.0 software

to determine the mean (N), percentage (%), confidence interval, high and low values, and the differences between the indicators using the One-Way ANOVA or a chi test- 'analysis of variance' parametric test. The statistically significant difference between the averages was confirmed by a 95 percent confidence interval. Age (sex, years of employment, profession, number of people served per day, workload, and overtime worked during a pandemic) calculated the relative (OR) ratio of groups with and without burnout syndrome.

3. RESULTS

3.1. Socio-demographic indicators: 67 employees participated in the study, 25 of them were doctors (37.3%), 29 of them were nurses (43.3%), 2 of them were lab assistants (3.0%), 3 of them were hospital attendants (4.5%), and 8 of them (11.9%) were other professionals. Figure 1 denotes the occupation, age group, and percentage of the medical staff who participated in the study.

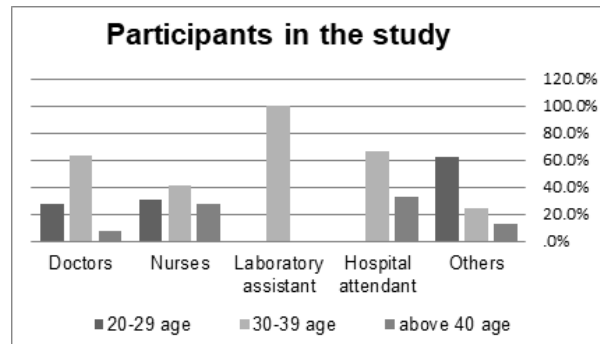


Figure 1. Occupation of the participants in research studies (age group, percentage)

Physicians, nurses, Laboratory assistants, Hospital attendants, others

Thirty-four (50.7%) of the medical staff in the research were 30-40 years old, 16 of the physicians (64.0%), 12 of the nurses (41.4%), 2 of the lab assistants (100.0%), 2 of the hospital attendants (66.7%), and 2 (25.0%) of other employees were in their 30-40 years and no statistical differences ($p < 0.05$, $p = 0.12$) were found between the age groups.

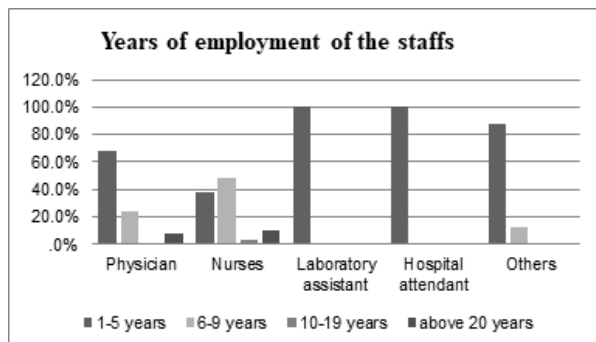


Figure 2. Year of employment of the studied employee (occupation and percentage)

Forty (59.7%) of the participated staff have worked for 1 to 5 years, of which 17 physicians (68.0%), 11 nurses (37.9%), 2 laboratory assistants (100.0%), and 3 hospital attendants (100.0%)., 7 (87.5%) employees of other professions have been working for up to 5 years, and no statistical differences ($p < 0.05$, $p = 0.35$) were found between groups.

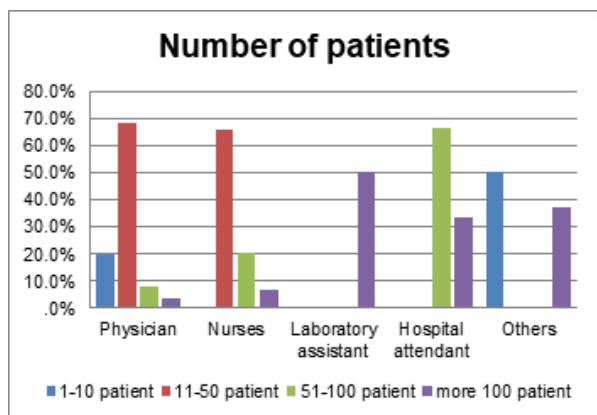


Figure 3. Number of patients served by the participants (Occupation, percentage)

Nine (13.4%) of the participants provide services to up to 10 people per day, 36 (53.7%) of them provide services to 10-50 people per day, 10 (14.9%) of them provide services to 50-100 people, and 8 (11.9%) of them provide services to up to 100 people per day. Also, 17 doctors (68.0%), 19 nurses (65.5%) are over 10-50, 2 laboratory assistants (100.0%) are over 100, 2 nurses (66.7%) are over 50-100, and others. 4 (50%) professionals provide services to 10-50 people, and statistical differences ($p < 0.05$, $p = 0.00$) were found between groups.

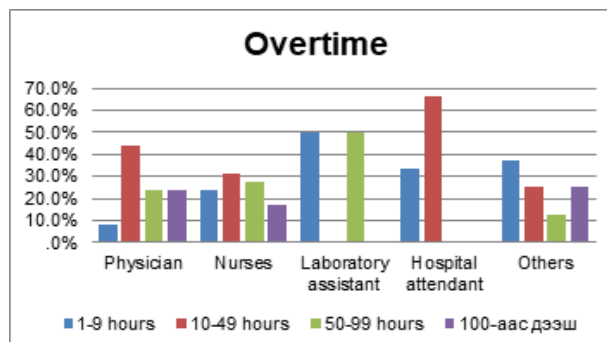


Figure 4. Overtime of the participants who worked during the epidemic (Occupation and percentage)

20.9% of the participants (medical staff) worked up to 10 hours per week during the pandemic, 35.8% up to 50 hours, 23.9% up to 100 hours, and 19.4% over 100 hours respectively. 44% of the physicians, 31% of the nurses, and 66% of the hospital attendants worked up to 50 hours per week, while 50% of lab assistants worked up to 100 hours during a pandemic, and statistically significant differences between groups ($p < 0.05$), $p = 0.00$ were detected (Figure 4). Results of a study on burnout syndrome

3.2. Results of a study on burnout syndrome

Table 1. indicates the 3 indicators of burnout syndrome and the scores of burnout syndrome of the participants expressed by profession and percentage.

Thirty-two (47.8%) of the hospital employee had scores below 50 on individual burnout syndrome, and 35 (52.2%) of them had scores above 50, of which 12 were physicians (48.0%), 14 nurses (48.3%), and 1 lab assistant (50.0%), 2 hospital attendants (66.7%), and 6 (75.0%) of the other health-care staff had high scores for the burnout syndrome, and no statistical differences ($p < 0.05$, $p = 0.68$) were found between the groups.

There were 28 (41.8%) healthcare staff who had scores less than 50, and 36 (58.2%) had a score more than 50, of which 16 (64.0%) were physicians, 14 (48.3%) were nurses, and 1 (50.0%) was a lab assistant, 2 of the nurses (66.7%), and 5 (62.5%) of the other professional healthcare workers had high scores for burnout syndrome, and no statistical differences ($p < 0.05$, $p = 0.43$) were found between the groups.

There were a total of 31 (46.3%) hospital staff with a score below 50 of client burnout syndrome, and 36 (53.7%) had a score above 50, of which 15 were physicians (60.0%), 11 were nurses (37.9%), and 2 were laboratory assistants. (100.0%), 1 (33.3%) of the nurses, and 7 (87.5%) of the other professional medical staff had high scores for burnout syndrome, and no statistical differences ($p < 0.05$, $p = 0.05$) were found between the groups (Table 1).

Table 1. The indicators of burnout syndrome

	Personal burnout		Work-related burnout		Client-related burnout	
Occupation	Less than 50	More than 50	Less than 50	More than 50	Less than 50	More than 50
Physician	13 (52.0%)	12 (48.0%)	9 (36.0%)	16 (64.0%)	10 (40.0%)	15 (60.0%)
Nurse	15 (51.7%)	14 (48.3%)	15 (51.7%)	14 (48.3%)	18 (62.1%)	11 (37.9%)
Lab assistant	1 (50.0%)	1 (50.0%)	1 (50.0%)	1 (50.0%)	-	2 (100.0%)
Hsp.Attendant	1 (33.3%)	2 (66.7%)	-	3 (100.0%)	2 (66.7%)	1 (33.3%)
Other	2 (25.0%)	6 (75.0%)	3 (37.5%)	5 (62.5%)	1 (12.5%)	7 (87.5%)
P value	0.68		0.43		0.05	

Table 2. shows the OR for each of the three indicators of burnout syndrome. Overtime work since the start of the pandemic has a 1.2-times increased risk of developing individual burnout syndrome and work-related burnout syndrome. But, the OR test found that 1.16 times the number of years of employment was associated with the risk of the client-related syndrome

Table 2. OR of burnout syndrome

Indices	Personal syndrome	Work-related syndrome	Client-related syndrome
Age	1.14	1.11	1.13
Sex	1.10	1.12	1.11
Years of employment	1.11	1.11	1.16
Occupation	1.10	1.17	1.09
Number of people served per day	1.15	1.14	1.14
Overtime	1.20	1.21	1.13
Number of people in critical condition	1.54	1.18	1.14
Department	1.17	1.12	1.15

4. DISCUSSION

The study was conducted in the framework of the project to assess the burden of work and mental health status of healthcare staff fighting COVID-19 in 2020 21.7% of the study participants were medical workers, 8.7% were from zoonosis, 35.9% were involved from police, and 33.7% were from the emergency institute. 41.3% of them had personal burnout, 29.3% had client-related burnout, and 25.5% had work-related burnout.⁴

5. CONCLUSIONS

This study enumerates that 52.2% of medical staff fighting COVID-19 during the pandemic period had personal burnout, 58.2% had work-related burnout, and 53.7% had client-related burnout. Working overtime since the onset of the pandemic is 1.2 times more likely to cause personal burnout syndrome and work-related burnout syndrome, and 1.16 times more likely to develop client-related burnout syndrome.

Acknowledgments: In this section, you can acknowledge any support given that is not covered by the author's contribution or funding sections. This may include administrative and technical support, or donations in kind (e.g., materials used for experiments).

Conflicts of Interest: Declare conflicts of interest or state "The authors declare no conflict of interest."

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