International Journal of Medical Science and Pharmaceutical Research

ISSN(e): 3050-5720
ISSN(p): 3050-5712

Vol. 02(08): 54-61, August 2025
Home Page: https://ijmspr.org/

Prevalence of Burnout and The Association between Burnout and Alcohol Use Disorder among Healthcare Professionals

Emmanuel Chidinma Jessica[1], Okwelum Anthonia Onyenibe[2], Nwoko-Omere Chiyanigam Kindness[3], Dr Okwelum C. O.[4]

[1]Department of Public Health, University of Port-Harcourt, Port Harcourt, Rivers State, Nigeria
[2]Department of Public Health, Faculty of Basic Medical Sciences, Southern Delta University, Delta State, Nigeria
ORCID: 0009-0009-3334-4890
[3]Department of Public Health, University of Port-Harcourt, Port Harcourt, Rivers State, Nigeria
[4]Department of Public Administration, Southern Delta University, Delta State, Nigeria
Orcid: 0000-0002-4249-1624

KEYWORDS:
Burnout, Prevalence of Burnout, Alcohol Uses Disorder, Healthcare Professional.

Corresponding Author:
Okwelum Anthonia Onyenibe

Published:
August 04, 2025

DOI:
https://doi.org/10.55677/IJMSPR/2025-3050-I802

ABSTRACT

Introduction: The harmful repercussions of excessive alcohol intake extend beyond the individual to negatively affect families and society. In the healthcare sector, increased alcohol consumption is a serious concern that has become normalized. Numerous research have revealed a strong correlation between alcohol use disorder among healthcare professionals and work-related issues.

Methodology: This study involved 394 healthcare professionals and it was carried out using a descriptive cross-sectional survey among healthcare professionals in FMC Yenagoa to gather information about their alcohol use patterns and possible "alcohol use disorder". The data obtained was analyzed using The Statistical Package for Social Sciences (IBM SPSS) version 25.

Results: The findings of this study on burnout among healthcare professionals in FMC Yenagoa showed that majority of respondents (30.0%) reported feeling emotionally drained by their work a few times per year, with most reporting this rarely. The results revealed that majority of the respondents (90%) reported low level burnout, while 10% had moderate level burnout.

Conclusion: The study reported that AUD was significantly associated with age of <30, male sex, being married, spending 4 or less hours at work, 0-10 years of experience in healthcare. There was low prevalence of burnout among there was no significant association between burn out and alcohol use disorder.

INTRODUCTION

In the healthcare sector, increased alcohol consumption is a serious concern that has become normalized (Rathburn, 2022). Numerous researches have revealed a strong correlation between alcohol use disorder among healthcare professionals and work-related issues. Numerous research have revealed a strong correlation between alcohol use disorder among healthcare professionals and work-related issues. According to Martinez et al., (2022), alcohol usage and good, moderate, or poor work capacity are related. Alcohol usage was linked to age at entry into the workforce (Martinez et al., 2022). Based on a study by Mercer et al., (2023), trauma and stress at work are factors that lead to nurses drinking alcohol. Anxiety, despair, trauma, and suicide are among the mental health issues that are linked to alcohol consumption, as are rotating shifts, night shifts, and duration of shifts. Faith, resiliency, and the perception of organizational aid are preventive characteristics that lower alcohol consumption among nurses (Mercer et al., 2023). Medisauskaite & Kamau (2019) discovered that as physicians gain expertise in their field, their likelihood of regularly consuming alcohol decreases, although binge drinking remains a possibility. Hospital doctors are more prone to binge drinking and ingesting copious amount of alcohol during a normal drinking day. The results of the study indicate that variables like burn-out,

work-life balance, and job exertion do not independently predict alcohol use, with the exception of psychiatric illness. Nonetheless, taking all of these variables into account can aid in comprehending the cumulative consequences of varying forms of occupational misery on drug or alcohol use.

The healthcare work environment is characterized by strenuous activities, capable of causing burnout and negatively impact professionals' performance, affecting efficiency and patient safety in many healthcare systems (Batanda, 2024). Burnout is a fatigue or exhaustion that many healthcare professionals experience on a mental, emotional, and physical level (Anbesaw et al., 2023). Many studies have brought awareness and light to the high rate of burnout among healthcare professionals working in public spaces. Still, there remains a research vacuum, especially when it comes to healthcare institutions in Nigeria.

Aim of the study

1. Prevalence of burnout among healthcare professionals in FMC Yenagoa
2. Association between burnout and alcohol use disorder among healthcare professionals in FMC Yenagoa

Significance of study

Herbert Freudenberger, a clinical psychologist, first introduced the term "burnout" in 1974, drawing inspiration from language associated with substance addiction. Burnout describes the exhaustion resulting from prolonged exposure to stressful job environments, impacting individuals on physical, emotional, and mental levels. In 1981, Christina Maslach developed the Maslach Burnout Inventory as a tool to assess burnout.

Burnout can cause physical and emotional exhaustion, weariness, sleep difficulties, cognitive decline, and functional impairment. These are examples of severe clinical symptoms of burnout. The usual cause of clinical burnout is a confluence of long-term work-related stress and personal variables. This may show up as depressive, anxious, or irregular sleep patterns. Roughly 50% of nurses, physicians, and other healthcare professionals experience burnout. Certain statistics show that 48.7% of German physicians fit the definition of burnout, while 10% of nurses globally experience severe burnout symptoms (Woo et al., 2020). Reduced productivity is directly associated with clinical burnout. Han et al., (2019) highlight that burnout contributes substantially to physician income and decreased clinical times, leading to annual losses amounting to nearly USD 4.6 billion. Importantly, burnout also affects the standard of patient care provided.

Alcohol consumption is linked to early mortality, with injuries, liver disease, stroke, heart disease and malignancies, plus gastrointestinal disorders being the primary contributors. It accounts for approximately four percent of the world's disease burden. Drinking too much alcohol can make it difficult to execute work-related duties, which lower morale and productivity and increase the risk of occupational injuries. Numerous people drink alcohol as a coping mechanism for discomfort and to ease the tension that comes with working overtime (Chen et al., 2022).

Burnout remains a crucial occupational health challenge to healthcare professionals given its immediate and remote harmful effects. Doctors and nurses are highly susceptible to burnout due to the essence and demands of their services (Bassey et al., 2023). The global trend of health workers emigrating, particularly from resource-constrained Africa, is causing a shortage of over 1.5 million workers, with provider burnout being a significant factor contributing to this issue (Gadzama et al., 2023). Many studies have brought attention to the high rate of burnout among healthcare professionals working in public spaces.

METHODOLOGY

Study design

This study was carried out using a descriptive cross sectional study.

Study area

The Federal Medical Centre Yenagoa, or FMC Yenagoa, stands as the largest and most prominent hospital situated at the heart of Yenagoa, Bayelsa State, Nigeria. This is the location where the research was conducted. Positioned at coordinate's 4°55′29°N 6°15′51°E, it resides in the southern part of the nation, with a postal code of 561. The majority of the state's population belongs to the Ijaw ethnic group. The primary local language spoken in Yenagoa is Epie-Atissa, while English serves as the official language. The area is divided into 15 wards, each with at least one health center. It boasts a wide array of standard facilities and departments, including obstetrics and gynecology, accident and emergency, laboratory, pediatric ward, community medicine, National Health Insurance Scheme (NHIS), Intensive Medicine, Radiology, Pharmacy, Medical Record, Mental Health, Physiotherapy/Works, among others. Equipped with top-notch medical equipment and staffed by skilled personnel, the hospital is committed to delivering high-quality healthcare services.

Study population

The research Participants were the healthcare professionals working in Federal Medical Centre, Yenagoa.

Inclusion criteria

The study includes health care professionals above the age of 18years

Exclusion criteria

Health care professionals who have refused to consent or participate in the study

Sample size determination

Cochrane's formula was used to calculate the appropriate sample size;

$n = \frac{Z^2 \times pq}{d^2}$

Where:

n = desired sample size

z = standard normal deviate corresponding to the possibility of type 1 error (a) at 95% = 1.96 confidence interval

p = Prevalence of alcohol use disorder. A prevalence, p = 36.9%, was used for this study which was prevalence of alcohol use disorder (AUD) among healthcare professionals in Australia (Searby et al., 2023).

q = 1– p = 0.631

d = the margin of error precision set at 5% = 0.05%

$n = \frac{1.96^2 \times 0.369 \times 0.631}{0.05^2}$ n = 358

Non-response rate =10%. (10% of 358 = 35.8) Hence n= 358 +35.8=393.8.

n = 394

Sampling technique

A multistage sampling method was used in the study

Stage 1: Tertiary healthcare facilities in Yenagoa were selected for the study.

Stage 2: One tertiary health care facility (FMC Yenagoa) of two was selected using simple random sampling method by balloting and used as the study area. The population of healthcare professionals in FMC Yenagoa was identified. The number of healthcare professionals based on cadre at FMC Yenagoa was found to be 1,911.

Step 2: Stratified sampling method was used to group the healthcare professionals into cadre and professions (Doctors, nurses, lab, pharmacy and others).

Stage 3: The total number of all healthcare professionals within each stratum was obtained. The total proportion of respondents from each of the selected cadre was obtained by dividing the total of 394 to ensure proper representation of the population for each cadre. The sample size from each stratum was determined to be proportional to its size in the population.

Stage 4: Participants were selected from each selected cadre, using simple random sampling method.

Study instrument

The research instrument was a semi-structured questionnaire developed from standardized tools to assess the objectives of the study. Maslach Burnout Inventory (MBI) was used and it is regarded as the "standard of excellence" in burnout assessment. It is considered as the "standard of excellence" for gauging burnout and includes three scales: personal achievement, depersonalization, and emotional exhaustion. The association between burnout and alcohol use disorder among healthcare workers is one of the objective(s) assessed by the instrument.

Scoring method:

Total 17 or less: low level burn out; Total between 18 and 29 inclusive: moderate burnout; total over 30: High level burnout.

Method of data collection

Participants received the questionnaire to fill out on their own, and the researcher retrieved the completed self-administered questionnaires.

Validity and reliability of instrument

For evaluating burnout, the Maslach Burnout Inventory (MBI) is regarded as the "standard of excellence." It was applied in evaluating the connection between alcohol use disorder and burnout among medical practitioners. The study instrument was pre-tested in 10% of the sample population. Cronbach's alpha coefficient statistics was used to evaluate a collection of survey questions for internal consistency and reliability. The Cronbach's alpha of 0.77 was obtained which denotes consistency among the items that guarantees the measure's reliability.

Data analysis

Appropriate software for data entry and management, such as Microsoft Excel was used and the data was analyzed with the usage of The Statistical Package for Social Sciences (IBM SPSS) version 25.

Ethical clearance

The Port-Harcourt University Ethical Review Board provided ethical clearance as requested by the researcher.

Confidentiality

Participants were assured of the confidentiality of their responses. The questionnaires did not have any personal identification.

RESULTS

A total of 394 questionnaires were administered on the respondents, and 381 were retrieved and were sufficiently completed for analysis, giving a 96.7% response rate.

The respondents' socio-demographic details are displayed in the table above. The bulk of respondents 240(63%), according to the statistics, were between the ages of thirty and above. 142(37.0%) were <30. 152(40.0%) of the participants were males, and 229(60.0%) were females. In terms of marital status, 229 respondents (or 60.0%) were married, whilst 152 respondents (or 40.0%) were single. 90.0% of the responders, or 343 people, were Christians, and 10.0% of them were Muslims. A total of 229(60.0%) respondents said they slept for less than 8 hours, and 152(40.0%) said they slept for more than 8 hours. While 76 respondents (20.0%) indicated a history of alcohol use, the majority of respondents (305, or 80.0%) claimed no family history of alcohol use. When it came to smoking history, 305 respondents (or 80.0%) had never smoked, 76 respondents (20.0%) had history of smoking. The majority of the 114 responders (30.0%) had between 10 years and below years of healthcare experience. 267(70.0%) had more than 10 years of experience.

Table 1: Socio-demographic characteristics

Variables	Frequency	Percentage (%)
Age		
<30	141	37.0
30 and above	240	63.0
Sex		
Male	152	40.0
Female	229	60.0
Marital Status		
Married	229	60.0
not married	152	40.0
Religious preference		
Christian	343	90.0
Muslim	38	10.0
how many hours do you sleep on average		
<8 hours	229	60.0
8 hours and above	152	40.0
Family history of alcohol use		
Yes	76	20.0
No	305	80.0
History of smoking		
No	305	80.0
Yes	76	20.0
Years of experience in healthcare		
10 years and below	114	30.0
> 10 years	267	70.0
Cadre/Profession		
Doctor	78	20.4
Nurse	169	44.4
Lab	55	14.4
Pharmacist	21	5.6
Others	58	15.2
What is your monthly income		
< 100,000 naira	38	10.0
100,000 and above	343	90.0
How many hours do you spend at work in a typical day		
less than 5 hours	152	40.0
5 hours and above	229	60.0

Prevalence of work burnout among healthcare professionals

Workplace burnout among healthcare workers at FMC Yenagoa is seen in Table 4.5 above. The majority of respondents (103, or 30.0%) reported that they are emotionally exhausted by my work occasionally, 34 (10.0%) that they never do so, 34 (10.0%) that they report once a month, 69 (20.0%) that they report occasionally, 34 (10.0%) that they report once a week, 34 (10.0%) that they report a few times a week, and 34 (10.0%) that they report every day. The majority of respondents (30.0%, or 103 persons) stated that it did not take much effort to work with people all day. With respect to the claim that "I feel like my work is breaking me down,"

172 respondents, or 50.0%, answered never. The majority of respondents, 173 (50.0%), indicated that they never felt that they worked too hard at their job in response to the statement. Out of 241 responders, 70.0% said they never answered "it stresses me too much to work in direct contact with people." Of the 309 responders, 90.0% said they had never "felt like they were at the end of their rope".

Table 2: prevalence of work burnout among healthcare professionals

Variables	Frequency	Percentage (%)
I feel emotionally drained by my work		
Never	34	10.0
A few times per year	104	30.0
Once a month	34	10.0
A few times per month	69	20.0
once a week	34	10.0
A few times per week	34	10.0
Every day	34	10.0
Working with people all day long requires a great deal of effort		
Never	104	30.0
A few times per year	34	10.0
Once a month	34	10.0
A few times per month	34	10.0
once a week	34	10.0
A few times per week	69	20.0
Every day	34	10.0
I feel like my work is breaking me down		
Never	172	50.0
A few times per year	137	40.0
once a week	34	10.0
I feel frustrated by my work		
Never	206	60.0
A few times per year	69	20.0
A few times per month	34	10.0
A few times per week	34	10.0
I feel I work too hard at my job		
Never	173	50.0
A few times per year	34	10.0
Once a month	34	10.0
A few times per month	34	10.0
A few times per week	34	10.0
Every day	34	10.0
It stresses me too much to work in direct contact with people		
Never	241	70.0
A few times per year	34	10.0
A few times per month	34	10.0
A few times per week	34	10.0
I feel like I'm at the end of my rope		
Never	309	90.0
A few times per year	34	10.0

Prevalence of burnout

Figure 1 below illustrates how often burnout is. According to the findings, 10% of respondents experienced significant levels of burnout, whereas 90% of respondents had mild levels.

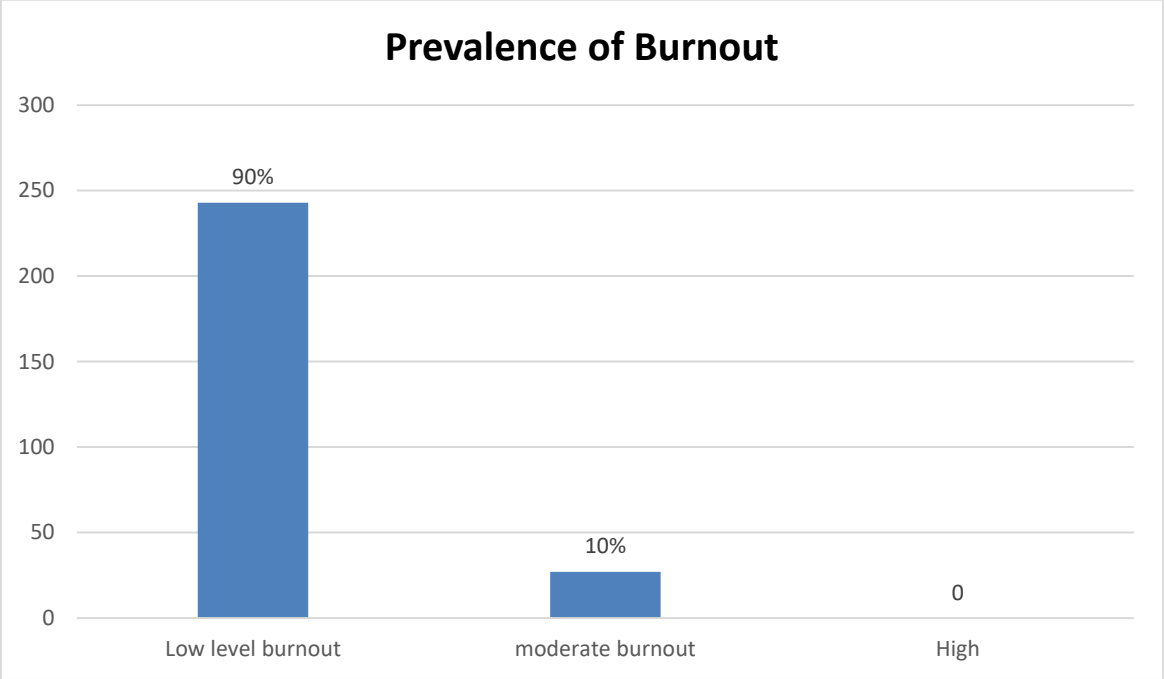

Figure 4.4: Bar-chart showing prevalence of burnout

Relationship between work burnout and alcohol use disorder among healthcare professionals

Table 3 below shows the relationship between burnout and alcohol use disorder among healthcare professionals. The results showed that there is a statistically significant relationship between burnout and alcohol use disorder (P<0.05). Participants with no burnout were 0.5 times less likely to have AUD (OR: 0.556; 95% C.I: 0.496 to 0.622).

Table 3: Distribution of categorical variables on relationship between work burnout and alcohol use disorder among healthcare professionals

		Alcohol Use Disorder							
		No	**Yes**	**X^2**	**df**	**P-value**	**odds**	**Lower**	**Upper**
Burnout.cat	No	172	137	20.000[a]	1	0.000	0.556	0.496	0.622
	Yes	34	0						
Total		206	137						

DISCUSSION

The study's findings showed that most respondents were female and between the ages of 30 and above. In a related study, the average age of the participants was 33.8 years, and about 77.5% of them were female (Tao et al., 2023). This suggests that a higher proportion of youthful healthcare professionals took part in the research. This is consistent with another study that found that 78.8% of study participants were female and 48.2% of participants were between the ages of 35 and 64 (Mc Magh et al., 2023).

The findings of the study on burnout among healthcare professionals in FMC Yenagoa showed that majority of respondents (30.0%) reported feeling emotionally drained by their work a few times per year, with most reporting this rarely. Working with people all day long did not require much effort. Most respondents (50.0%) felt their work was not breaking them down, and 70.0% felt it was too stressful to work in direct contact. The results revealed that majority of the respondents (90%) reported low level burnout, while 10% had moderate level burnout. The findings of this study is contrary to the finding of a study by Lwiza & Lugazia, (2023), which reported that sixty-two percent of participants reported having experienced burnout, and ninety-four percent reported feeling extremely emotionally exhausted, suggesting that burnout is a common occurrence among healthcare professionals. The study indicated that wellness initiatives and personal well-being can lower it, necessitating quick action and more investigation (Lwiza & Lugazia, (2023). Studies on the incidence of burnout among healthcare professionals in Africa have revealed various prevalence rates, between 51% and 94%, which is greater than in industrialized nations, according to research (Lwiza & Lugazia, (2023). Compared to other sub-Saharan African research, the current study revealed a reduced prevalence of burnout. According to a South African survey, 81% of people experience burnout. But the MBI's single subscale was solely utilized to identify burnout (Liebenberg et al., 2018). This report implies that perhaps because of the nature of their jobs, health care providers are more likely to experience emotional weariness. One illustration of this is the observation that burnout rates among nurses may also be impacted by the intricacy of working circumstances in subspecialty practice (Lwiza & Lugazia, 2023). The global trend of health workers emigrating,

particularly from resource-constrained Africa, is causing a shortage of over 1.5 million workers, with provider burnout being a significant factor contributing to this issue (Gadzama et al., 2023). Research has highlighted the burden of burn out among health workers in public facilities. It is also imperative to note that diverse tools may present different prevalence of burnout indifferent provinces. Gadzama et al., (2023), led a study to determine the prevalence and pattern of burnout in healthcare professionals working at a private hospital in Abuja, Nigeria using the Burnout Clinical Subtype Questionnaire (BCSQ-12). The study revealed 85% prevalence of burnout, with 71% experiencing overload, 61% lacking development opportunities, and 18% feeling neglected. The study underscores the high prevalence of burnout among healthcare professionals which is not constant with the current study, highlighting the necessity for integrating burnout screening into routine health assessments to address the Africa healthcare workforce crisis (Gadzama et al., 2023). Bassey et al., (2023) reported that burnout prevalence among doctors was 9.7% compared to 5.5% among nurses. Out of 553 respondents, 247 (46.7%) had high emotional exhaustion (EE), 70 (12.7%) had high depersonalization (DP), and 342 (61.9%) had low personal accomplishments (PA). The study reveals higher burnout prevalence among doctors than nurses, highlighting the need for workplace modifications to mitigate the adverse effects of burnout (Bassey et al., 2023). Nwosu et al., (2020) determined the prevalence of burnout among physicians practicing in Nigeria, factors associated with the development of burnout using Oldenburg burnout inventory. The results revealed that burnout prevalence was 75.5%. The study concluded that Nigeria's high physician burnout underscores the need for public health policy to address this issue, as it impacts physician safety, patient safety, and healthcare system performance (Nwosu et al., 2020). The frequency of burnout among healthcare workers (HCWs) in emergency departments (EDs) and critical care units (ICUs) during the COVID-19 pandemic was assessed by Gualano et al., in 2021. The incidence of overall burnout varied from 49.3% to 58%, according to the research. Socio-demographic and work-related traits were associated with burnout (Gualano et al., 2021).

The study on the association between alcohol use disorder and burnout found significant evidence of a substantial association between the two. Burnout is the phrase for tiredness brought on by extended periods of employment on a physical, emotional, and mental level (Chen et al., 2022). In line with the findings of the current study, research has indicated a correlation between alcohol use and psychological or emotional disturbance. However, it might be difficult to determine a clear causal link (Lwiza & Lugazia, 2023). According to Tao et al., (2023), clinical therapists who experience burnout are more likely to abuse alcohol due to a number of other causes (Tao et al., 2023). Tao et al., (2023) found that occupational burnout (depersonalization) was linked to a higher risk of alcohol misuse, which is consistent with the findings of earlier studies (Shaikh et al., 2022, Shahi et al., 2022, Kuriyama et al., 2022). Occupational burnout among healthcare workers was at a relatively high level (19.9%). The results of the current research support the conclusions of this one. Zhou et al., (2022), discussed if drinking alcohol may be a coping mechanism for dealing with burnout at work. To create effective treatments, it is necessary to stratify which risk variables are most likely to result in professional burnout, as risky alcohol use and burnout may have separate effects on patient safety (Zhou et al., 2022). Potential indicators for burnout include stress, emotional suffering, individual and psychological variables, and personality features (Navines et al., 2021; Zisook et al., 2022). Long-term work-related stresses as well as non-work-related stressors frequently contribute to clinical burnout in individuals, which can result in anxiety, depression, or disturbed sleep (Woo et al., 2020). Notably, burnout has an impact on the standard of treatment provided to patients as well (Han et al., 2019). Chen et al., (2022) discovered a negative correlation between WB and work experience, marital status, motherhood, leisure activities, and regular exercise. While there was a favorable correlation between shift work, overtime, and neck and shoulder pain (NBSP). The study found that a vicious cycle of musculoskeletal pain and alcohol use had increased WB in people who used alcohol as a coping mechanism for NBSP or in those who had NBSP and frequently drank. As a result, medical professionals shouldn't think about using alcohol to lessen burnout (Chen et al., 2022). This report is not consistent with the current study. This could be attributed to the presence of co-associated factors such as NBSP. Healthcare workers' occupational burnout needs to be managed and prevented since it can cause turnover and have an impact on the continued operation of the workforce.

CONCLUSION

The study reported that AUD was significantly associated with age of <30, male sex, being married, spending 4 or less hours at work, 0-10 years of experience in healthcare. The study on the association between alcohol use disorder and burnout found significant evidence of a substantial association between the two.

RECOMMENDATION

Hospital managements should put in place modalities to reduce work stress and burnout among healthcare professionals such as observing break hours, provide a more flexible shift duties pattern.

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