



The Open Nursing Journal

Content list available at: <https://opennursingjournal.com>



RESEARCH ARTICLE

The Moderation Effect of Affective Commitment on the Relationship between Job Stress and Presenteeism among Obstetric Healthcare Workers during COVID-19 Pandemic

Rania El-Kurdy¹, Amina El-Nemer¹, Ahmad Yousef², Waheed Elsaidy³ and Ayman Hamdan-Mansour^{4,*}

¹Woman's Health and Midwifery Nursing, Mansoura University, Mansoura, Egypt

²Public Health and Community Medicine, Damietta Faculty of Medicine, Al-Azhar University, Cairo, Egypt

³Community and Industrial Medicine, Damietta Faculty of Medicine, Al-Azhar University, Cairo, Egypt

⁴School of Nursing, The University of Jordan, Amman, Jordan

Abstract:

Background:

Presenteeism is a significant factor that affects the quality of care provided by obstetric healthcare workers, including nurses, that needs further investigation of its connection to job stress and affective commitment during COVID-19 pandemic.

Aim:

The aim of this study is to examine the moderation effect of affective commitment on the relationship between job stress and presenteeism among obstetric healthcare workers during COVID-19 pandemic.

Methods:

Two hundred and seven Egyptian obstetric healthcare workers participated in a cross-sectional, descriptive study using a web-based questionnaire to collect data on sociodemographic, presenteeism, challenge stress, hindrance stress, and affective commitment.

Results:

More than 50% of obstetric healthcare workers had a moderate level of presenteeism, while job stress and affective commitment were at moderate to high levels. Affective commitment had a significant moderating effect on the relationship between job stress and presenteeism ($p < .001$). Challenges and affective commitment had a positive effect on presenteeism, while hindrances had a negative effect.

Conclusion:

Obstetric healthcare workers need to recognize the connection between job stress and presenteeism and the buffering role of affective commitment.

Implications for Nursing Practice:

Nurses need to recognize the effect of pandemic COVID-19 on job stress and presenteeism among obstetrics nurses and healthcare workers. Developing innovative protocols would enable them to improve their functionality and productivity at work.

Keywords: Affective commitment, COVID-19, Healthcare workers, Job stress, Presenteeism, Health problems.

Article History

Received: June 4, 2021

Revised: November 25, 2021

Accepted: December 23, 2021

1. INTRODUCTION

World Health Organization declared coronavirus disease (COVID-19) as global pandemic on 11th of March 2020 [1]. In

Egypt, till November 25, 2021, the total number of cases confirmed with COVID-19 was 353442 and 20109 deaths (<https://www.worldometers.info/coronavirus>) [2]. According to Royal College for Obstetrics and Gynecology [3], infected pregnant women are considered at slight increased risk if they are infected with COVID-19. Others have reported that

* Address correspondence to this author at the School of Nursing, The University of Jordan, Amman- Jordan; Email: a.mansour@ju.edu.jo

COVID-19 might jeopardize the health of pregnant women [4]. Consequently, obstetric healthcare workers (HCWs) caring for those women are considered at risk to COVID-19 as well. It has been noted that obstetric HCWs are struggling to meet healthcare needs and provide safe care to pregnant women at risk to COVID-19. Thus avoiding maternal deaths and pregnancy-related consequences are considered a priority to obstetric HCWs [5]. Such a situation, in addition, to work during the outbreak of COVID-19, has added more pressure on obstetric HCWs leading to an increased need for staff and facilities and causing higher levels of job-related stress [6].

The literature has emphasized the impact of COVID-19 on HCWs in general. For example, HCWs were found to suffer physical and psychological anxiety, distress, and exhaustion due to the constant caring of patients with COVID-19 [6, 7]. The shortage in healthcare systems' infrastructure, lack of well-prepared facilities, and decreased in-services training for such an emergency situation have also contributed to an increased burden on HCWs [7, 8]. This has led to fragile psychological resilience among obstetric HCWs causing higher levels of job stress [8, 9]. Notably, job stress is reported to cause physical and emotional harm among HCWs and deteriorates their physiological and psychological wellbeing leading to lower productivity and performance [10 - 12]. During the COVID-19 pandemic, in particular among obstetric HCWs, factors such as affective commitment and presenteeism are considered significant contributors to job stress that have been neglected in the literature [13]. Presenteeism refers to a problem of healthcare workers being on the job but due to illness or medical problems they cannot fully function and are less productive at work [14]. Presenteeism is considered a significant issue as there is no way to connect the low performance of a worker with a medical problem unless the worker himself speaks out for his problem [14, 15]. Therefore, presenteeism connects the problems that undermine job performance contributing to productivity loss due to invisible medical, psychological or illness issues.

On the other hand, affective commitment refers to the willingness of workers to stay at work and positions due to emotional connectedness and attachment to the firm [14, 15]. The literature addressed these two concepts, affective commitment and presenteeism, and found to affect HCWs' wellbeing, performance, productivity, and patients' safety [13, 14]. Moreover, affective commitment motivated employees to complete their job responsibilities, improve their performance, develop work abilities, and reduce presenteeism [15]. This would raise the question of whether affective commitment would positively effect presenteeism and buffer the negative impact of job stress among obstetric HCWs.

The great shortage of HCWs in Egypt compared to other Arab countries, in addition to the greater demands due to outbreak of COVID-19, has called for an emergency plan in the country. 4.52 physicians and 19.26 nurses and midwives per 10000 patients in Egypt indicate critical shortage of HCWs compared to international figures [16]. During COVID-19 pandemic, it is expected that the shortage of obstetric HCWs will contribute to lower quality of care which might compromise pregnant women's wellbeing too [11 - 14]. As

mentioned, obstetric HCWs are among the most affected and at risk of infected with COVID-19 leading to higher levels of job stress and psychological disturbances. Increasing the demands of care for pregnant women, who, if infected, will be slightly at risk for being severely unwell, add more to job stress causing negative impacts on the quality of care provided. Such a situation needs to evoke attention towards obstetric HCWs and the assumed effect of increased job stress, high level of presenteeism, and low level of affective commitment on the quality of obstetric healthcare provided. Therefore, this study aims at investigating the relationships among presenteeism, job stress and affective commitment in obstetric HCWs in Egypt and to test the moderation effect of affective commitment on the relationship between challenge stress and hindrance stress on presenteeism controlling for the selected demographic characteristics of Egyptian obstetric healthcare workers during COVID-19 pandemic.

The research questions were:

- What is the moderation effect of affective commitment on the relationship between job stress and presenteeism of Egyptian obstetric healthcare workers during COVID-19 pandemic in Egypt?
- Are there differences in job stress, presenteeism and affective commitment in relation to demographic characteristics of obstetric healthcare workers in Egypt?

2. MATERIALS AND METHODS

Design: A cross-sectional and correctional design was used to achieve the objectives of this study. The study was conducted using an anonymous online survey targeting obstetric HCWs caring for clients diagnosed with COVID-19.

Settings: Data was collected from one major university-affiliated hospital in Egypt. The hospital provided secondary and tertiary levels of care to different age groups called the medical castle in the Egyptian Delta. The hospital has a capacity of 1512 beds and it includes 44 departments and central sterilization and operation wards. The number of clients to the outpatient clinics reached 455971 between July 1st, 2017 and June 30th, 2018 and the number of clients to gynecology and obstetrics emergency department reached 14230 cases. The number of operations conducted in the same period was 18531 in addition to 1416 minor operations in the outpatient clinic.

Sample and sampling: A total of 221 obstetric HCWs approached, 207 agreed and participated in the survey with a response rate of 94%. Using an online format of data collection eventually contributed to such high response rate. Inclusion criteria included: 1) age of 18 years or above, 2) work as obstetric HCW, 3) able to use electronic software devices designated for data collection, and 4) work at the hospital for at least three months to ensure familiarity with rules, regulation, and protocols of working during COVID-19 pandemic.

The sample size was calculated based on World Bank population estimates. This allows making the ratio of healthcare workers to service users of obstetric care. The sample size required was 207 subjects according to Raosoft

sample size calculator based on 95% confidence level, 6.81% margin of error, the anticipated response of 50%, putting into consideration the healthcare workers sitting of work is changing every single day and total target Egyptian population size of 82160 physicians (0.79 physicians/1,000 population) and 197600 nurses (1.9 Nurse/1000 population) [17, 18].

2.1. Instruments

The instrument comprises four parts: a socio-demographics of participants, Perceived Ability Working Scale (PAWS), The Challenge and Hindrance Related Self-Reported Stress scale (C-HSS), and affective commitment. The measures were translated following the WHO guideline for tool adaptation and translation. Pilot testing was conducted (n = 21) to check the clarity, how to easily use the instrument and the time required for completing the survey.

- Socio-demographic characteristic of participants' part was developed by the researchers and it included data about the participant's age, gender, residence, occupation, educational level, and years of experience.
- Perceived Ability Working Scale (PAWS) was used to assess the Obstetric HCWs presenteeism. The PAWS is one of the most valid, reliable, acceptable, and easy to fill instruments for assessing perceived lost productivity. This scale had acceptable psychometric properties in previous studies [19, 20]. The tool consisted of four items; asking respondents to rate their perceived ability on a scale from 0 to 10 (0 = cannot currently work at all; 10 = workability is currently at its lifetime best). The higher scores indicated higher levels of presenteeism. The PAWS was found to be a valid and reliable tool with Cronbach's alpha of 0.87 [21]. In this study, the scale showed good internal consistency with Cronbach's alpha of 0.905.
- The Challenge and Hindrance Related Self-Reported Stress scale (C-HSS) is one of the most valid, reliable, acceptable, and easy to fill instruments for measuring job-related stress among HCWs. This scale had acceptable psychometric properties [21]. The tool consists of eleven items, asking the respondents to rate their response using a five-point Likert scale (1 = no stress; 5 = great stress). Higher values reflect higher levels of job-related stress. The C-HSS was found to be a valid and reliable tool with a Cronbach's alpha of 0.92–0.81 in previous studies [10, 22]. In this study, the scale showed good internal consistency with a Cronbach's alpha of 0.907 for the challenge stress items and 0.855 for the hindrance stress items.
- Affective commitment is one of the most valid, reliable, acceptable, and easy to fill instruments [23]. The tool consists of fifteen items, asking respondents to rate their satisfaction with the organization on a scale from 1 "strongly disagree" to 7 "strongly agree". Higher values reflected higher levels of affective commitment. The Affective Commitment scale was found to be a valid and reliable tool with a Cronbach's alpha of 0.85 in previous studies [15]. In this study, the scale showed good internal consistency with a

Cronbach's alpha of 0.86.

2.2. Pilot Testing and Tools' Validity and Reliability

A pilot study was conducted to test the instruments' psychometric properties, to discover difficulties that might be encountered in the course of the actual data collection, and to check the tools' convenience to Egyptian culture. Pilot study helped determine the time needed for the participants to fill the self-reported questionnaire, readiness, and clearness of tools' items. The pilot study was carried out on 21 obstetrics HCWs. The participants in the pilot study were excluded from the research study. Translation of the study tools was conducted following the WHO guidelines for instrument translation. Using the standard protocol of forward and backward translation the translation technique included four steps: forward translation; expert panel back-translation; pretesting and cognitive interviewing; and the final version. A forward translation from the original language (source language) to the target language was conducted by one bilingual translator, a health professional, familiar with the terminology of the topic embraced by the instruments and the content area of the construct of the instruments in the desired target language. The translator was knowledgeable of the English-speaking culture and his mother tongue (the primary language) was the target culture. Then, a bilingual expert panel of the original translator, expert in health, as well as expert with experience in instruments development and translation were included. Then, the instruments were translated back to English by an independent translator, whose mother tongue was English and who had no knowledge of the questionnaire and checked as equivalent to the original. The back-translation was based on conceptual and cultural equivalence and not linguistic equivalence. Later, the back-translation version had been sent to the original author and approved to back-translation version.

For face and content validity, the instrument was reviewed by six experts; two experts in nursing, two from community medicine and two experts from obstetric medicine. The current tools' reliability for the presenteeism items was 0.905, for the challenge stress items was 0.907, for the hindrance stress items was 0.855, and for the affective commitment items was 0.86 calculated through Alpha Cronbach's test indicating accepted reliability of the tools.

2.3. Data Collection

Data were collected using an adapted online self-reported survey from April to August 2020. The researchers used social media and networking to announce the study, its purpose and significance. The announcement also included information related to title, confidentiality, privacy of information and that this study will be anonymous. Those interested in participating were asked to contact the research team and were provided with the link for online survey. The contact information of the researchers was available to answer the queries of the participants related to the study. The survey took an average of 15 min to be completed. The researchers sent the electronic survey *via* social media and WhatsApp application for those who showed interest in participating in the study.

Ethical consideration: Prior to data collection, ethical

approval was obtained from the targeted IRB at the Faculty of Nursing, Mansoura University, Egypt. Human participants' right to confidentiality, privacy and safety were protected throughout the project. Voluntary participation was assured. An electronic informed consent was obtained from each participant. Data was saved on a password-secured computer at principal researcher's office.

2.4. Data Analysis

The statistical analysis was done using the IBM-SPSS program version 24. Variables were described using frequency, percentages, central tendency measure (Mean, Median) and dispersion measures (SD, range, IQR). Inferential statistics such as Pearson correlation, t-test, ANOVA, and chi-square fitness tests were used to assess the representativeness of the study samples and to examine differences in the variables of the study related to demographic characteristics of participants. Multiple hierarchical regression analysis was carried out to test the moderation effect of independent variables on the dependent variable. Alpha was set to 0.05.

3. RESULTS

3.1. Demographic Information

A total of 207 obstetric HCWs represented the total sample. The analysis (Table 1) showed that the mean age of participants was 32.7(\pm 10.6), and most of them were of 26-40 years of age. The majority (77.3%, n = 160) of participants were females of which 59.4% (n = 123) were from rural areas. Regarding specialty, 65.7% (n = 136) were nurses, 29.5% (n = 61) were physicians and only 4.8% (n = 10) were administrative employees. Less than half of the HCWs held a bachelor's degree (40.6%, n = 84). Among the studied participants, 33.3% (n = 69) had an experience that ranged from six to 10 working years, and 26.6% (n = 55) of them were suffering from at least one chronic disease.

3.2. Variables of the Study

Presenteeism: the analysis (Table 2) showed that the mean score of presenteeism was 26.13 (SD=8.9) with scores ranging from 4-40, and 50% of the scores were 27 or above indicating moderate level.

Table 1. socio-demographic characteristics of the studied obstetric healthcare workers.

Variable	n	%
Age		
44	21.3	
26- 40 years	132	63.8
41-60 years	30	14.5
>60 years	1	0.4
	(Mean \pm SD) = 32.7\pm10.6	
Sex		
Male	47	22.7
Female	160	77.3
Residence:		
Urban	84	40.6
Rural	123	59.4
Occupation		
Physician	61	29.5
Nurse	136	65.7
Administrative employees	10	4.8
Educational level		
Doctorate	13	6.3
Master	42	20.3
Bachelor	84	40.6
Technical Institute	68	32.8
Experience of working years		
<3 years	46	22.2
4-5 years	33	15.9
6-10 years	69	33.3
11- 20 years	50	24.2
>20 years	9	4.3
Medical problems		
Yes	55	26.6
No	152	73.4
Chronic disease		

(Table 1) contd.....

Variable	n	%
Cardiac	9	16.4
Chest	5	9
Renal	3	5.5
Hepatobiliary	15	27.3
Neurological	9	16.4
Musculoskeletal	9	16.4
Other	5	9

Table 2. descriptive statistics of the variables of the study (N= 207).

Variables	M	SD	P50	Min	Max
Presenteeism	26.1	8.9	27.0	4.0	40.0
Affective Commitment	66.2	12.5	66.0	25.0	105.0
Job stress total scale	42.1	8.8	43.0	11.0	55.0
Challenges	23.9	5.1	24.0	6.0	30.0
Hindrance	18.2	4.7	18.0	5.0	25.0

Affective commitment: the analysis (Table 2) showed that the mean score of affective commitment was 66.18 (SD=12.5) with scores ranging from 25-105, and 50% of the scores are 66 or above, indicating a moderate to high level of affective commitment.

Job Stress: the analysis (Table 2) for the subscales of job stress due to the independent nature of the two subscales showed that challenges mean score was 23.86 (SD=5.1) with scores ranging from 6-30, and 50% of the scores are 24 or above indicating moderate to a high level of challenges subscale of job stress. While the mean score of hindrance was 18.22 (SD=4.7), with scores ranging from 5-25, and 50% of the scores are 18 or above, indicating a moderate to high level of hindrance subscale of job stress.

3.3. Bivariate Analysis

Correlation has been tested among the variables of the study using Pearson r . The analysis showed that presenteeism has a negative non-significant correlation with challenges stress ($r = -.13, p > .05$). Moreover, it has a negative and statistically significant correlations with hindrance stress ($r = -.13, p < .05$) and affective commitment ($r = -.12, p < .05$). Affective commitment, on the other hand, had a non-significant and a very low correlation with challenges and hindrance subscales of job stress ($r > .005, p > 0.05$). Although the statistical analysis showed a significant correlation, the magnitude of correlation infers a weak form of association ($< .30$) which may indicate the statistical significance rather than clinical significance.

3.4. Regression Analysis

To examine the moderation effect of affective commitment on the relationship between challenge stress and hindrance stress on presenteeism, controlling for the selected demographic characteristics (age, gender, and specialty, residence, educational level, years of experience, type of medical problem and presence of chronic illness), three-steps multiple hierarchical regression analysis was performed. In Block 1, demographic characteristics entered, in Block 2, challenge stress and hindrance stress entered, and in Block 3 affective commitment entered. The decision for order of entry was based on the assumption that whether adding affective commitment will show a significant improvement in the job stress-presenteeism relationship. We ordered entry of the variables regarding their logically determined priority depending on the literature and what the bivariate correlation showed between the variables of the model, supported by the researchers' scientific judgment.

The results showed that model 1 that included demographic factors explained 7.0% ($R^2 = .070$) of the variance in presenteeism (Table 3). In this model, none of the variables was a significant predictor for presenteeism, although years of experience was a marginal non-significant predictor ($p = .055$) and that the model was significant ($F_{7, 207} = 2.526, p = .022$). After entry of challenge and hindrance in model 2, the total variance explained by the model was 11.1% ($R^2 = .111$) and was significant ($F_{7, 207} = 3.075, p = .003$). The variables in step 2 explained an additional 4.0% of variance in presenteeism.

Table 3. Three steps Multiple Hierarchal examining affective commitment moderating effect on the relationship between job stress and presenteeism controlling for demographic characteristics (N = 207).

Variables	Model 1		Model 2		Model 3	
	β	P- value	β	P- value	β	P- value
Age	.082	.488	.044	.686	.032	.767
Gender	-.124	.122	-.099	.179	-.103	.159
Specialty	-.060-	.444	-.042	.565	-.050	.484

(Table 3) contd....

Variables	Model 1		Model 2		Model 3	
	β	P- value	β	P- value	β	P- value
Level of education	-.017	.855	-.041	.638	-.043	.621
Years of experience	.225	.055	.184	.086	.189	.077
Chronic illnesses	-.026	.723	-.006	.923	-.004	.958
Challenges			.187	.021	.180	.025
Hindrance			-.255	.002	-.246	.003
Affective Commitment					.347	<.001
Model	<i>R</i> ²	<i>Adj R</i> ²	<i>R</i> ² change	F	p	
1	.070	.043	.070	2.526	.022	
2	.111	.075	.040	3.075	.003	
3	.229	.193	.120	6.149	<.001	

In model 2, challenge and hindrance were significant predictors of presenteeism ($p < .05$). The analysis showed hindrance was negatively associated with presenteeism ($\beta = -.255$, $p = .002$), while challenge was positively associated with presenteeism ($\beta = .187$, $p = .021$). In Block 3, in which affective commitment was added to test its moderation effect, the analysis showed that the model was statistically significant ($F = 6.149$, $p < 0.001$) with $R^2 = 0.229$ and adjusted $R^2 = .193$, and R^2 change of .12. The R^2 value of 0.23 indicates that 22% of the variation in the relationship between job stress and presenteeism is related to the moderation effect of affective commitment with an increase of 12%. This could be explained in terms of the R^2 changes (R^2 change). Affective commitment has a positive association with presenteeism ($\beta = .337$, $p < .001$), while hindrance and challenges remained significantly associated with presenteeism and none of the demographic characteristics has a significant association with presenteeism. In other words, there was a positive association between presenteeism and job stress, while a negative association with hindrance. On the other hand, affective commitment positively moderates the relationship between job stress and presenteeism, controlling demographic characteristics. The analysis showed that differences and variation in presenteeism were not influenced by differences related to demographic characteristics. Those who have high scores in challenges and affective commitment and lower scores in hindrance are more likely to have higher scores in presenteeism.

3.5. Differences Related to Sociodemographic

To examine differences in the variables of the study related to socio-demographics of HCWs, the analysis showed that there were no significant differences in presenteeism, challenges, hindrances and affective commitment between male and female participants ($p > .05$). Regarding age and years of experience, the analysis showed that presenteeism had a positive and significant correlation with age ($r = .21$, $p < .05$) and years of experience in the profession ($r = .24$, $p < .05$). Moreover, significance and a negative correlations between hindrance and age ($r = -.21$, $p < .05$) and years of experience ($r = -.21$, $p = .003$) have been observed. On the other hand, challenges and affective commitment have not been associated significantly with age and years of experience ($p = .003$).

Regarding specialty, using ANOVA, the analysis showed that there were no significant differences in presenteeism, hindrance, challenges and affective commitment related to the

specialty of HCWs (nurses, physician, and administrative workers) ($p > .05$).

4. DISCUSSION

COVID-19 has influenced the capacity of healthcare professionals and exhausted healthcare systems [24]. One particular group is obstetric HCWs who are struggling to meet the increased needs of pregnant women and have attempted to adapt to the crisis of COVID-19 pandemic. This study aimed at exploring the moderation effect of affective commitment on the relationship between job stress and presenteeism among Egyptian obstetric healthcare workers during COVID-19 pandemic. In general, the study found that obstetric HCWs had a moderate level of presenteeism and moderate to high levels of affective commitment and job stress. Moreover, it has been found that affective commitment has a positive moderation effect on the relationship between job stress and presenteeism. Affective commitment and challenges were positively associated with presenteeism, while hindrance was negatively associated with presenteeism. The results of the study infer that affective commitment and challenges were protective factors against developing higher levels of presenteeism. In other words, obstetric HCWs with higher levels of challenges and affective commitment are more likely to have higher level of functionality and performance at the workplace (lower scores of presenteeism) despite their sickness and medical or health problems that they could use to waive themselves from job responsibilities. Hindrance was found to be a risk factor for presenteeism, indicating that a higher level of hindrance among obstetric HCWs is associated with a less performance, functionality, and creating faked reasons to escape their responsibilities and duties. The results indicate that obstetric HCWs might have considered COVID-19 pandemic as one positive challenge; thus, they enhanced their commitment and adherence to their responsibilities and duties (affective commitment) as sources of power to counteract hindrance and presenteeism. Presenteeism is not about pretending to be sick to be waved from job responsibilities, and rather, it is being less productive due to real health issues. This creates a novel way to make a clear distinction between presenteeism, absenteeism, malingering, and wasting time at work. The findings sustain that although obstetric healthcare workers are suffering real health problems, they are still struggling to perfect their work using their positive perception of challenges and affective commitment. The literature has provided

evidence that there is a clear connection between work performance and internal resources such as locus of control and job demands [25]. It has also been reported that the quality of care provided to patients with COVID-19, and healthcare professional capabilities to provide care to individuals with COVID-19 have been influenced by societal, organization and personal factors confirming the challenge that HCWs are confronting during COVID-19 [26 - 29]. Such explanation would also be accepted in all emergency situations that have been explained previously where moral commitment to agency or organization would create challenges for better performance among workers [30]. This one novel finding in this study helps understand the factors that may contribute to lower levels of job stress and its influences on productivity, performance, and quality of care at various health care settings during COVID-19 and similar future situations. Another significant issue to be emphasized here is related to the low to fair magnitudes of correlation found in this study which might affect the clinical significance of the relationships among the variables. In other words, the magnitude of correlation needs to be interpreted cautiously rather than for absolute indication. Previous studies reported that affective commitment has a negative impact on presenteeism and those who reported a higher level of presenteeism are more likely to report a low level of hindrance [15]. Our study supports the notion that stress-related factors at work, individual factors, and health status of HCWs are significantly related to presenteeism [15], while others [31] found that only the health status of workers was the mediator for presenteeism, which has not been supported with findings in our study. One explanation could be related to the timing and type of sample in our study in which working during the outbreak of COVID-19 and being a healthcare worker would add more moral responsibilities than in a normal situation and not being a healthcare worker.

The moderate to high level of presenteeism reported before COVID-19 has also been observed among health workers in various working settings [15]. On the other hand, during COVID-19, it has been reported that effective commitment has a positive and significant effect on organizational citizenship among nurses handling COVID-19 which supports the results of this study [32]. Moreover, hindrance has been an issue due to the nature of COVID-19 and related public and health care policies and procedures adopted to control the outbreak of COVID-19. Precaution is taken by governments to limit the spread of COVID-19 including lock down and curfew which resulted in increased levels of job stress among healthcare workers. The results, related to increased level of job stress among our participants, are supported by several previous studies that high occupational stress and psychological distress among healthcare workers have been observed; especially among nurses who are at the frontlines to combat COVID-19 [33]. International reports have also sustained the notion that COVID-19 has altered working conditions in healthcare settings causing huge pressure and job stress among HCWs [33].

One limitation of this study was related to using cross-sectional and convenience sampling techniques and relying on using an online survey format of data collection which may affect the generalizability of the findings. Another limitation is

related to the sample size in which a larger multi-site sample might be more informative and delineate the contextual connection among the variables of the study.

CONCLUSION

Obstetric HCWs are the main cornerstone for improving the quality of maternal and child healthcare services. The current study shows moderate to high levels of affective commitment and positive effect on the relationship between job stress and presenteeism among Egyptian obstetric HCWs. Managers and policymakers should pay attention to job-related stressors, which directly increase HCWs presenteeism especially during pandemic era. This is also considered for other emergency and pandemic situations that indicate the need for agencies' preparedness and managing work-related stressors. Future policy should focus on mitigating presenteeism by reducing workplace tension for healthcare workers, enhancing working environments, and creating more chances for staff to improve their affective commitment. A challenging and positive moral and working environment would be the main enhancers for functionality and quality of obstetric healthcare services.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This study has been reviewed and approved by the Research Ethics Committee of Faculty of Nursing, Mansoura University. The participants provided their consent for participation in this study.

HUMAN AND ANIMAL RIGHTS

No animals were used for studies that are the basis of this research. The study complies with the Helsinki declaration.

CONSENT FOR PUBLICATION

Written informed consent was obtained from each participant prior to the study for publication of this research.

STANDARDS OF REPORTING

STROBE guidelines and methodologies were followed in this study.

AVAILABILITY OF DATA AND MATERIALS

Not applicable.

FUNDING

None.

CONFLICT OF INTEREST

Dr. Ayman Hamdan-Mansour is the Editorial Board member of The Open Nursing Journal.

ACKNOWLEDGEMENTS

Declared none.

REFERENCES

- [1] World Health Organization. 2020. Available from: <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020>
- [2] Worldometer. Covid-19 coronavirus pandemic: Worldometer. Available from: <https://www.worldometers.info/coronavirus/>
- [3] Royal College for Obstetrics and Gynecology. Pregnancy and

- COVID-19 2021. Retrieved on Nov 25, 2021. Available from: <https://www.rcog.org.uk/en/guidelines-research-services/guidelines/coronavirus-pregnancy/covid-19-virus-infection-and-pregnancy/>
- [4] Kourtis AP, Read JS, Jamieson DJ. Pregnancy and infection. *N Engl J Med* 2014; 370(23): 2211-8. [<http://dx.doi.org/10.1056/NEJMr1213566>] [PMID: 24897084]
- [5] United Nations Population Fund (UNFPA). Available from: <https://www.unfpa.org/resources/covid-19-technical-brief-maternity-services>
- [6] Gan WH, Lim JW, Koh D. Preventing intra-hospital infection and transmission of coronavirus disease 2019 in health-care workers. *Saf Health Work* 2020; 11(2): 241-3. [<http://dx.doi.org/10.1016/j.shaw.2020.03.001>] [PMID: 32292622]
- [7] Hemp P. Presenteeism: at work-but out of it. *Harv Bus Rev* 2004; 1; 82(10): 49-58. Available from: https://www.npg-rsp.ch/fileadmin/npg-rsp/Themen/Fachthemen/Hemp_2004_Presenteeism.pdf
- [8] Rahman M, Ahmed R, Moitra M, *et al.* Mental distress and human rights violations during CoViD-19: a rapid review of the evidence informing rights, mental health needs, and public policy around vulnerable populations. *Front Psychiatry* 2021; 11: 603875. [<http://dx.doi.org/10.3389/fpsy.2020.603875>] [PMID: 33488426]
- [9] World Health Organization. 2020. Available from: <https://apps.who.int/iris/handle/10665/333072>
- [10] Deng J, Guo Y, Ma T, Yang T, Tian X. How job stress influences job performance among Chinese healthcare workers: a cross-sectional study. *Environ Health Prev Med* 2019; 24(1): 2. [<http://dx.doi.org/10.1186/s12199-018-0758-4>] [PMID: 30611191]
- [11] Dollard MF, Dormann C, Idris MA. Psychosocial safety climate: a new work stress theory. 1st ed. Switzerland: Springer 2019. [<http://dx.doi.org/10.1007/978-3-030-20319-1>]
- [12] Yang T, Shen YM, Zhu M, *et al.* Effects of co-worker and supervisor support on job stress and presenteeism in an aging workforce: a structural equation modelling approach. *Int J Environ Res Public Health* 2015; 13(1): h13010072. [<http://dx.doi.org/10.3390/ijerph13010072>] [PMID: 26703705]
- [13] Freeling M, Rainbow JG, Chamberlain D. Painting a picture of nurse presenteeism: A multi-country integrative review. *Int J Nurs Stud* 2020; 109: 103659. [<http://dx.doi.org/10.1016/j.ijnurstu.2020.103659>] [PMID: 32585449]
- [14] Homrich PHP, Dantas-Filho FF, Martins LL, Marcon ER. Presenteeism among health care workers: Literature review. *Rev Bras Med Trab* 2020; 18(1): 97-102. [<http://dx.doi.org/10.5327/Z1679443520200478>] [PMID: 32783010]
- [15] Yang T, Guo Y, Ma M, Li Y, Tian H, Deng J. Job stress and Presenteeism among Chinese healthcare workers: The mediating effects of affective commitment. *Job stress and presenteeism among Chinese healthcare workers: The mediating effects of affective commitment. Int J Environ Res Public Health* 2017; 14(9): 978. [<http://dx.doi.org/10.3390/ijerph14090978>] [PMID: 28850081]
- [16] Vardell E. Global health observatory data repository. *Med Ref Serv Q* 2020; 2(1): 67-74. [<http://dx.doi.org/10.1080/02763869.2019.1693231>]
- [17] The World Bank. World Health Organization's Global Health Workforce Statistics Nurses and midwives (per 1,000 people) 2020. Available from: <https://data.worldbank.org/indicator/SH.MED.NUMW.P3>
- [18] The World Bank. World Health Organization's Global Health Workforce Statistics. Physicians (per 1,000 people) 2020. Available from: <https://data.worldbank.org/indicator/SH.MED.PHYS.ZS>
- [19] Ilmarinen J, Rantanen J. Promotion of work ability during ageing. *Am J Ind Med* 1999; 1;36(s 1): 21-3. [[http://dx.doi.org/10.1002/\(SICI\)1097-0274\(199909\)36:1+<21::AID-AJIM8>3.0.CO;2-S](http://dx.doi.org/10.1002/(SICI)1097-0274(199909)36:1+<21::AID-AJIM8>3.0.CO;2-S)]
- [20] Vänni K, Virtanen P, Luukkaala T, Nygård CH. Relationship between perceived work ability and productivity loss. *Int J Occup Saf Ergon* 2012; 1;18(3): 299-309. [<http://dx.doi.org/10.1080/10803548.2012.11076946>]
- [21] Yang T, Ma T, Liu P, *et al.* Perceived social support and presenteeism among healthcare workers in China: the mediating role of organizational commitment. *Environ Health Prev Med* 2019; 24(1): 55. [<http://dx.doi.org/10.1186/s12199-019-0814-8>] [PMID: 31481032]
- [22] Cavanaugh MA, Boswell WR, Roehling MV, Boudreau JW. An empirical examination of self-reported work stress among U.S. managers. *J Appl Psychol* 2000; 85(1): 65-74. [<http://dx.doi.org/10.1037/0021-9010.85.1.65>] [PMID: 10740957]
- [23] Mowday RT, Steers RM, Porter LW. The measurement of organizational commitment. *J Vocat Behav* 1979; 14(2): 224-47. [[http://dx.doi.org/10.1016/0001-8791\(79\)90072-1](http://dx.doi.org/10.1016/0001-8791(79)90072-1)]
- [24] Hamdan-Mansour AH, Al Shibi AN, Khalifeh AH, Hamdan-Mansour L. Health-care workers' knowledge and management skills of psychosocial and mental health needs and priorities of individuals with COVID-19. *Mental Health and Social Inclusion* 2020; 24(3): 135-44. [<http://dx.doi.org/10.1108/MHSI-04-2020-0022>]
- [25] Bani-Hani M, Hamdan-Mansour A. The moderation effect of locus of control on the relationship between job demands and job satisfaction among nurses. *Int J Nurs Pract* 2021; 27(1): e12876. [<http://dx.doi.org/10.1111/ijn.12876>] [PMID: 32702786]
- [26] Dalky H, Hamdan-Mansour A, Amareh B, *et al.* Social discrimination perception among health-care workers and ordinary people towards individuals with COVID-19. *Soc. Infl* 2020. [<http://dx.doi.org/10.1080/15534510.2020.1838945>]
- [27] AlShibi A, Hamdan-Mansour AM. Hamdan-Mansour, A. Nurses' knowledge and skills to manage patients with psychological distress in emergency departments. *Open Nurs J* 2020; 14(1): 49-55. [<http://dx.doi.org/10.2174/1874434602014010049>]
- [28] Ratrout HF, Hamdan-Mansour AM. Secondary traumatic stress among emergency nurses: Prevalence, predictors, and consequences. *Int J Nurs Pract* 2020; 26(1): e12767. [<http://dx.doi.org/10.1111/ijn.12767>] [PMID: 31328356]
- [29] Hamaideh S, Modallal H, Tanash M, Hamdan-Mansour A. Depression, anxiety and stress among undergraduate students during COVID-19 outbreak and "home-quarantine. *Nurs Open* 2021. [<http://dx.doi.org/10.1002/nop.2918>] [PMID: 33988913]
- [30] Mercurio ZA. Affective commitment as a core essence of organizational commitment: An integrative literature review. *Hum Resour Dev Rev* 2015; 14(4): 389-414. [<http://dx.doi.org/10.1177/1534484315603612>]
- [31] Jourdain G, Vézina M. How psychological stress in the workplace influences presenteeism propensity: A test of the demand-control-support model. *Eur J Work Organ Psychol* 2014; 23(4): 483-96. [<http://dx.doi.org/10.1080/1359432X.2012.754573>]
- [32] Gusrita , Syahrizal . Gusrita & Syahrizal. Effect of affective commitment on organizational citizenship behavior and emotional performance with emotional intelligence as a moderation variable on nurse handling of COVID-19 RSUP Dr. M. djamil padang. *Advances in Economics Business and Management Research* 2020; 152 [<http://dx.doi.org/10.2991/aebmr.k.201126.105>]
- [33] Sehsah R, Gaballah MH, El-Gilany AH, Albady AA. Psychological distress among egyptian physicians during COVID-19 pandemic. *Int Arch Occup Environ Health* 2021; 94(4): 731-40. [<http://dx.doi.org/10.1007/s00420-020-01624-4>] [PMID: 33394181]