

Relationship between Occupational Stress and Organizational Commitment among Staff Nurses

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Abstract

Background : Occupational stress and Organizational commitment are very significant for ensuring sustained productivity from the employee of an organization. **Aim of the study:** to find out the relationship between occupational stress and organizational commitment among staff nurses. **Subjects and methods :** this is a descriptive correlational design was conducted at Ashmoun fever hospital in Menofiya in Egypt on a sample of 80 staff nurses. Data were collected through using a self-administered tool with stress rating scale and organizational commitment questionnaire . **Results:** there was a highly significant statistical moderate negative correlation between study participants' total organizational commitment and their occupational stress, more than two thirds (67.5%) of participants had high level of total occupational stress and near half (47.5%) of them had high level of total organizational commitment . **Conclusion:** There was significant statistical relationships between study participants' level of total occupational stress and total organizational commitment and their characteristics .There was a highly significant statistical moderate negative correlation between study participants' total organizational commitment and their occupational stress. **Recommendations:** The study findings recommended that, develop strategies for improving nurses working conditions.

Keywords: Occupational stress , Organizational Commitment and Staff nurses.

Introduction:

Hospital is one of the sector in which there is always stress, because other than the daily activities which include like patients visiting doctors for daily checkup, or for small treatments. There can be emergency situations where many people are admitted at same time due to major accidents, or a major surgery which require a lot of preparation, time and hard work. These stresses affect the nurses in their professional and personal life. Although they work in shifts they spent half of their day in hospitals standing taking care of the patients without any rest or food. This makes them tired and worn out. Stress has a direct effect on commitment of nurses. If they are stressed, they may not care for the patients or may not be willing to take responsibility, and not be time conscious (Hans & Sathyan , 2016).

Occupational stress has been linked to organizational commitment and health care costs and illness . The less the nurses have occupational stress, the more the nurses are

committed with their organization developed (Yahaya et al., 2012).

Commitment is a psychological attachment to and identification with the organization/occupation . Attachment to values, individual, object or organization results from identification with the attitudes, values, or goals of the model. That is, some of the attributes, motives, or characteristics of the model are accepted by the individual and become incorporated into the cognitive response set of the individual (Saleh R.K., 2016).

Aim of the study:

This study aims at identifying the relationship between occupational stress and organizational commitment among staff nurses through: assessing level of occupational stress among staff nurses , assessing level of organizational commitment among staff nurses , and finding out the relationship between occupational stress and organizational commitment among staff nurses.

Research questions

Is there a relationship between occupational stress and organizational commitment among staff nurses?

Subjects and methods:

I) Technical design :

The technical design for this study included the research design , setting of the study ,study subjects and tools for data collection .

Research design:

A descriptive correlational design was used to carry out this study .

Setting:

This study was conducted at all departments (seven departments) in Ashmoun Fever Hospital which affiliated to the Ministry of Health & Population (MOHP) . It is located at Menofiya governorate. The hospital contains (58) beds. It provides general and medical services and its specialties which consisted of isolation department , males department , females department , infant department , endoscope department , intensive care unit (ICU) and emergency department (ER) .

Subjects:

The subjects of this study included all the staff nurses who working in the above mentioned setting during the time of the study . Their total number were (80) staff nurses.

Tools of the study:

Data of this study was collected through using two tools , namely occupational stress rating scale and organizational commitment questionnaire .

1.Occupational stress rating scale (Appendix I) :

This tool was used to assess the level of occupational stress among staff nurses. The tool was adopted from (Abd-allah , 2017) . It consisted of two parts :

Part 1: Personal and job characteristics:

This part aimed to collect data related to personal and job characteristics of the study subject such as job title , age , gender , qualification , total years of experience , marital status , current department in addition to the years of experience in the current work department .

Part 2 : Occupational stress rating scale. This part consisted of (57 items) , divided into ten main dimensions :

- Death and dying (6 items)
- Disagreement among nurses (7 items)
- Uncertainty concerning treatment (5 items)
- Conflict with physician (6 items)
- Inadequate preparation for nurses (6 items)
- Lack of support from leadership (6 items)
- Workload (8 items)
- Understaffing (3 items)
- Nurses capability (4 items)
- Physical environment (6 items)

❖ Scoring system:

Subjects responses for stress rating scale were measured on a five points likert scale ranged from 1 to 5 from (never stressful , rarely stressful ,sometimes stressful , often stressful and extreme stressful) respectively. The scores were reversed for negative items so that a higher score indicate more stress. The score of each dimension were summed up then the sums of scores were converted into percent . For categorical analysis , a score of 60% or more in each dimension was considered as high stress while score less than 60% was considered as low stress (Abd-allah, 2017) .

2. Organizational commitment questionnaire (Appendix II) :

This tool aimed to assess organizational commitment level among staff nurses .It was

developed & translated by (shosha, 2017). It consisted of (22 items) categorized into three main dimensions :

- Affective (9 items)
- Continuance (7 items)
- Normative (6 items)

❖ Scoring system:

Subjects responses for organizational commitment questionnaire were measured on a five points likert scale ranged from 1 to 5 from (strongly disagree , disagree , sometimes , agree , strongly agree) respectively. The scores were reversed for negative items so that a higher score indicate more commitment. The score of each dimension was summed up then the sums of scores were converted into percent scores. For categorical analysis, a score of 60% or more in each dimension was considered as high commitment while score less than 60% was considered as low commitment.

Tools validity:

The study tools were presented to a panel of experts for face and content validity . The panel consisted of three experts in nursing administration. They were (2) professors from the faculty of nursing Ain-Shams University and (1) professor from the faculty of Cairo University. The process involved their general opinions about the form . They assessed each item for relevance , clarity , coverage , wording format , comprehensiveness , understandability and overall appearance . Minimal modifications were done according to their suggestions in the form of rephrasing some items.

Tools reliability:

The study tools were tested for reliability through testing internal consistency using Cronbach's Alpha test as follow:

Cronbach's alfa coefficient of organizational commitment and occupational stress.

	Cronbach's Alpha	N of Items
Organizational commitment	0.887	22
Occupational stress	0.704	57

Preparatory Phase:

The researcher had reviewed current, past, local and international related literature and knowledge aspect of the study using books, articles, journals and internet for three months from June 2018 to August 2018 . This was helpful in processing the data collection tool and in writing up the scientific back ground of the study.

Ethical Considerations:

Official permission were obtained from Nursing Research Ethical Committee, faculty of nursing Ain-Shams University for the study. Then the researcher met the study subjects to explain the purpose of the study and to obtain their approval to participate through getting oral informed consent . The staff nurses were assured about the anonymity of the information collected, and that it would be used only for the purpose of scientific research, and were informed about their right to refuse or withdraw from the study at any time .

Pilot Study:

It was carried out at January 2021 in order to ascertain the clarity, applicability , feasibility of the data collection tools and estimate time needed for filling it. The time needed for filling the questionnaire sheet (30 minutes) . Ten percent (10%) of total sample (8 staff nurses) were recruited for pilot study there were selected randomly . Since modifications were done in the tools, these subjects were included in the main study sample.

Fieldwork:

The field work started by letter from dean of faculty to the director of ashmoun fever

hospital . Once official permission for conducting the study was obtained. The investigator visited the study setting , met the directors of the hospital to explain the aim of the study and get their approval and cooperation. Then, the investigator met study subject & explained the aim of the study to them, and invited them to participate. Questionnaire forms were distributed to the respondents at their workplace. Then, sheets collected by the researcher at the same time or at the next day. The filed forms were revised by the researcher to ensure their completeness. The return rate was 100 %.

The appropriate time of data collection was according to type of work and workload of each department. It was sometimes between the morning shift and other times before the end of the afternoon shift and in the beginning of night shift. The phase of collection of data took two months from the beginning of February 2021 to the end of March 2021.

Administrative Design:

To carry out the study at the selected setting, official letters were issued from the Faculty of Nursing , Ain-Shams University to get permission from the hospital director and the nursing director. The purpose of the study and its procedures were explained to them to get their agreement and cooperation . These letters included the aim of the study and photocopy from data collection tools.

I. Statistical Design:

Data entry and statistical analysis were done by using SPSS 20.0 statistically software package. Data were presented using descriptive statistics in the form of frequencies and percentages for all study qualitative variables .Cronbch's alpha coefficient was calculated to assess the reliability of tools through their internal consistency. Qualitative categorical variable was compared using chi square test to assess the relation between the levels of the study variables and participants' demographic data. Pearsons' correlation was used for assessment the relationship between the study variables .

Results:

Table (1): the study sample consisted of 80 staff nurses whose age ranged between 20 and 60 years , (67.5%) of them with age 20 – 30 years, (75%) of them were females. The majority were carrying technical institute diploma (37.5%),and slightly more than their half were married (77.5%). Their total experience ranged from less than ten years to 40 years, near two thirds. More than one third (40%) of them working in I.C.U . More than three quarters (77.5%) of them were married.

Table (2): concludes that only 35% of the study participants had low level of occupational stress regarding the dimension of (Physical environment) , only 40% of them had moderate level of occupational stress regarding the dimension of (Disagreement among nurses), and more than two thirds (87.5%) of them had high level of occupational stress regarding the dimension (Uncertainly concerning treatment).Overall, more than two thirds 67.5% of them had high level of total occupational stress.

Figure (1): indicates that, only 13.7% of the study participants had low level of total occupational stress, 18.8% of them had moderate level of total occupational stress while more than two thirds (67.5%) of them had high level of total occupational stress.

Table (3): concludes that slightly more than half (52.5%) of the study participants had low level of organizational commitment regarding the dimension of natural commitment , only (40 %) of them had moderate level of organizational commitment regarding the dimension of continuance commitment ,and near half (42.5 %) of them had high level of organizational commitment regarding the dimension of affective commitment. Overall, near half (47.5%) of the study participant had high level of total organizational commitment.

Figure (2): concludes that, more than one third (37.5%) of the study participants had low level of total organizational commitment, only 15% of them had moderate level of total organizational commitment, and near half (47.5%) of them had high level of total organizational commitment.

Table (4): concludes that there was significant statistical relations between study participants' level of total occupational stress and their qualification ($p=0.49$), gender ($p=0.78$), marital status ($p=0.03$), and current department ($p=0.02$).

Table (5): illustrated that there was significant statistical relations between study participants' level of total organizational commitment and their gender ($p=0.05$), qualification ($p=0.20$), marital status ($p=0.00$), and current department ($p=0.03$).

Table (6): illustrates that there were significant statistical negative correlations between participants' occupational stress and their age ($p=0.007$), experience ($p=0.010$), and current unit experience ($p=0.012$).

Table (7): illustrates that there were significant statistical negative correlations between affective commitment dimension and all of the following dimensions of occupational stress regarding workload ($p=0.017$), understaffing

($p=0.015$), nurses' capabilities ($p=0.005$), and physical environment ($p=0.00$). Also, there were significant statistical negative correlations between continuance commitment dimensions and all of the following occupational stress dimensions regarding : conflict with physicians ($p=0.00$), inadequate preparation for nurses ($p=0.00$), lack of support from leadership ($p=0.00$), workload ($p=0.00$), understaffing ($p=0.00$), nurses' capabilities ($p=0.001$), physical environment ($p=0.00$). In addition, there were significant statistical negative correlations between natural commitment dimension and all of the following dimensions of occupational stress regarding disagreement among nurses($p=0.004$), lack of support from leadership ($p=0.00$), workload ($p=0.00$), understaffing ($p=0.00$), and nurses' capabilities ($p=0.001$).

Table (8): displays the pearson correlation for the score of total occupational stress and total organizational commitment. As the model shows that there was a highly significant statistical moderate negative correlation ($p=0.00$) between study participants' total organizational commitment and their occupational stress.

Table (1): Personal and job characteristics of staff nurses in the study sample . (N=80).

Job title	Categories	No.	%
	Staff nurse	80	100
	20 < 30 years	54	67.50
	30 < 40 years	10	12.50
	40 < 50 years	10	12.50
	50 < 60 years	6	7.50
	Mean \pm SD	31.0 \pm 9.34	
	Male	20	25
	Female	60	75
	Nursing school diploma	24	30
	Technical institute diploma	30	37.50
	Bachelor of nursing sciences	26	32.50
	Less than 10 years	50	62.50
	10 < 20 years	14	17.50
	20 < 30 years	8	10
	30 < 40 years	8	10
	Mean \pm SD	11.15 \pm 10.02	
	Married	62	77.50
	Un married	18	22.50
	Isolation department	4	5
	Infant department	4	5
	Females department	11	13.75
	Males department	11	13.75
	ER	14	17.50
	Endoscopy	4	5
	ICU	32	40
	Less than 10 years	50	62.50
	10 < 20 years	16	20
	20 < 30 years	6	7.50
	30 < 40 years	8	10
	Mean \pm SD	10.95 \pm 9.90	

Table (2): Total level of occupational stress among staff nurses in the study sample (N=80).

Total occupational stress dimensions	Low		Moderate		High	
	No.	%	No.	%	No.	%
Death and dying	22	27.5	0	0	58	72.5
Disagreement among nurses	2	2.5	32	40	46	57.5
Uncertainly concerning treatment	0	0	10	12.5	70	87.5
Conflict with the physician	14	17.5	12	15	54	67.5
Inadequate preparation for nurses	8	10	20	25	52	65
Lack of support from leadership	8	10	20	25	52	65
Workload	12	15	24	30	44	55
Under staffing	16	20	8	10	56	70
Nurses capabilities	4	5	8	10	68	85
Physical environment	28	35	20	25	32	40
Total occupational stress	11	13.7	15	18.8	54	67.5

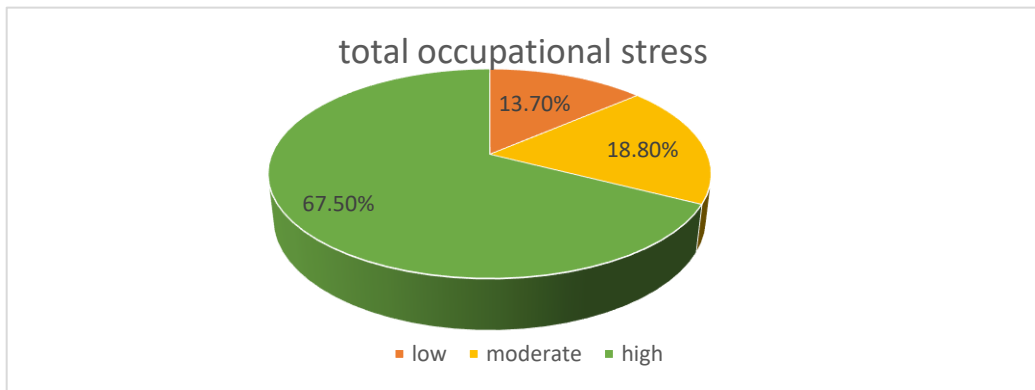


Figure (1): Total level of occupational stress among staff nurses in the study sample (N=80).

Table (3): Total level of organizational commitment among staff nurses (N=80).

Total organizational commitment	Low		Moderate		High	
	No.	%	No.	%	No.	%
Affective commitment	34	42.5	12	15	34	42.5
Continuance commitment	32	40	32	40	16	20
Natural commitment	42	52.5	8	10	30	37.5
Total organizational commitment	30	37.5	12	15	38	47.5



Figure (2): Total organizational commitment among staff nurses in the study sample (N=80).

Table (4): Relationship between staff nurses' total occupational stress, and their characteristics (N=80).

Personal data	Categories	Total occupational stress level						Chi square test	
		Low		Moderate		High		χ^2	P
		No.	%	No.	%	No.	%		
Gender	Male	3	13.6	5	22.7	14	63.6	0.08	0.78
	Female	8	13.8	10	17.2	40	69.0		
Qualification	Nursing school diploma	2	9.5	5	23.8	14	66.7	1.42	0.49
	Technical institute diploma	7	22.6	2	6.5	22	71.0		
	Bachelor of nursing sciences	2	7.1	8	28.6	18	64.3		
Marital status	Married	6	10.5	13	22.8	38	66.7	4.84	0.03
	Single	5	21.7	2	8.7	16	69.6		
	Isolation department	1	8.3	11	91.7	0	0		
Current department	Infant department	4	50.0	0	0	4	50.0	13.14	0.02
	Males department	1	4.75	1	4.75	8.50	40.50		
	Females department	1	4.75	1	4.75	8.50	40.50		
	ER	1	9.1	2	18.2	8	72.7		
	Endoscopy	2	33.3	0	0	4	66.7		
	ICU	1	4.0	2	8.0	22	88.0		

*p is significant at ≤ 0.05 , highly significant at ≤ 0.001

Table (5): Relationship between staff nurses' total organizational commitment and their characteristics (N=80).

Personal data	Categories	Total organizational commitment level						Chi square test	
		Low		Moderate		High		χ^2	P
		No.	%	No.	%	No.	%		
Gender	Male	8	40	6	30	6	30	5.76	0.05
	Female	22	36.7	6	10	32	53.3		
Qualification	Nursing school diploma	10	41.7	2	8.3	12	50	5.97	0.20
	Technical institute diploma	8	26.7	8	26.7	14	46.7		
	Bachelor of nursing Sciences	12	46.2	2	7.7	12	46.2		
Marital status	Married	24	38.7	4	6.5	34	54.8	16.65	0.00
	Single	6	33.3	8	44.4	4	22.2		
	Isolation department	0	0	0	0	4	100		
Current department	Infant department	4	100	0	0	0	0	19.72	0.03
	Females department	3	13.65	2	9.10	6	27.25		
	Males department	3	13.65	2	9.10	6	27.25		
	ER	4	28.6	2	14.3	8	57.1		
	Endoscopy	4	100	0	0	0	0		
	ICU	12	37.5	6	18.8	14	43.8		

*p is significant at ≤ 0.05 , highly significant at ≤ 0.001

Table (6): Correlation between staff nurses' occupational stress and organizational commitment, and their characteristics (N=80).

	Pearson Correlation	Age	Experience	Unit experience
Occupational stress	r	-0.301**	-0.287**	-0.281*
	P	0.007	0.010	0.012
Organizational commitment	R	0.027	0.044	0.035
	P	0.810	0.699	0.756

*p is significant at ≤ 0.05 , highly significant at ≤ 0.001

Table (7): Correlation between staff nurses' occupational stress and organizational commitment dimensions in the study sample (N=80) .

Dimensions	Pearson correlation	Affective commitment	Continuance commitment	Natural commitment
Death and dying	r	0.240*	-0.009	-0.007
	P	0.032	0.937	0.950
Disagreement among nurses	r	-0.197	-0.195	-0.316**
	P	0.080	0.083	0.004
Uncertainly concerning treatment	r	0.136	-0.134	-0.186
	P	0.229	0.237	0.099
Conflict with the physician	r	0.047	-0.407**	-0.185
	P	0.680	0.000	0.100
Inadequate preparation for nurses	r	-0.128	-0.487**	-0.402**
	P	0.258	0.000	0.000
Lack of support from leadership	r	-0.161	-0.483**	-0.494**
	P	0.152	0.000	0.000
Workload	r	-0.267*	-0.646**	-0.559**
	P	0.017	0.000	0.000
Under staffing	r	-0.271*	-0.481**	-0.458**
	P	0.015	0.000	0.000
Nurses capabilities	r	-0.314**	-0.376**	-0.343**
	P	0.005	0.001	0.002
Physical environment	r	-0.542**	-0.454**	-0.145
	P	0.000	0.000	0.200

*p is significant at ≤ 0.05 , highly significant at ≤ 0.001

Table (8): Correlation between staff nurses' total occupational stress and total organizational commitment in the study sample (N=80).

Dimensions	Pearson correlation	Total commitment
Total occupational stress	r	-0.554**
	P	0.000

*p is significant at ≤ 0.05 , highly significant at ≤ 0.001

Discussion:

Nurses' commitment towards job is important in showing how the manager has to work hard in order to keep their staff or employees committed to the organization and understand employees' behavior in the workplace. Therefore, moving an employee towards commitment to the organization is challenge to a manager *Dorgham, (2012)*.

Concerning the total occupational stress, the study findings revealed that a few participants had low level of total occupational stress while more than two thirds of them had high level of total occupational stress. According to *Al - Hawajreh , (2011)*, in a study entitled " Exploring the relationship between occupational stress and organizational commitment among nurses in selected

Jordanian Hospitals " and revealed statistically significant positive correlations between coping strategies scores and most of the occupational stress dimensions . Also, the physical health has statistically significant positive correlations with stresses related to role ambiguity, work relations, and professionalism. This means that nurses exposed to such stresses develop coping strategies and find physical health to deal with these stressors.

Concerning the total organizational commitment, the present study results observed that more than one third of the study participants had low level of total organizational commitment, only little of them had moderate level of total organizational commitment, and near half of them had high level of total organizational commitment. *Meyer et al., (2014)* in London found that at least in theory, the optimal organizational commitment profile should have affective commitment with the highest score, followed by normative and continuance commitment scores that are considerably lower. The elevated continuance commitment scores may indicate that the employees feel "trapped" in the organization and have few options available to seek other job opportunities.

Regarding the relation between staff nurses occupational stress, organizational commitment and their personal and job characteristics , the current study results showed that there were significant statistical negative correlations between participants' occupational stress, their age, experience, and unit experience .While there were insignificant statistical correlations between participants' organizational commitment and their age, experience, and unit experience .

This result was supported by *Cheng et al., (2020)*, in a study entitled "Pediatric nurses' general self-efficacy, perceived organizational support and perceived professional benefits from class A tertiary hospitals in Jilin province of China: the mediating effect of nursing practice environment" found that more than half of nurses were married.

This result was inconsistent with *Mokhtar et al., (2016)*, in a study entitled "The

relationship between occupational stressors and performance amongst nurses working in pediatric and intensive care units" who found that more than half of nurses were single.

This study is agreed with (*Jun et al., 2011*), in a study entitled " The influences of learning organizational culture, organizational commitment, and organizational citizenship behavior " and revealed that personal characteristics are those variables that define the individual, such as age, education and need for achievement. Work experiences describe experiences related to group attitudes and perceptions of personal investment in and worth to an organization. Job characteristics include job challenge, opportunities for social interaction and feedback concerning staff nurses work performance .

On the same line , *Alipour (2015)*, in a study entitled " Examining the relationship between job stress and organizational commitment among nurses of hospitals " and showed that there is a significant inverse relationship between job stress and organizational commitment. Moreover, there is a significant inverse relationship between job stress and affective, normative and continuance commitment. Further more, this study agreed with *Butt (2009)*, in a study entitled " The relationship between occupational stress and organizational commitment in non governmental organizations of Pakistan " in Pakistan and revealed that there is an inverse relationship between occupational stress and organizational commitment, which means that a high level of stress may inversely influence organizational commitment.

Conclusion:

In the light of the study finding , it be concluded that : more than two thirds of studied staff nurses had high level of total occupational stress . Also, near half of them had high level of organizational total commitment. There were highly significant statistical negative correlations between study participant's occupational stress and their age , experience and current unit experience. While there were insignificant statistical correlations between study participant's organizational commitment

and their age , experience and unit experience .There was significant statistical relations between study participants' level of total occupational stress and total organizational commitment and their characteristics .There was a highly significant statistical moderate negative correlation between study participants' total organizational commitment and total occupational stress.

Recommendations:

In view of the study results the proposed recommendations are as following.

Management:

- The study showed that female nurses had higher level of organizational commitment compared to male nurses, appropriate recruitment strategies in health care organization should be formulated focusing on recruitment of nurses who pose low levels of occupational stress and high level of organizational commitment.
- Identify factors that contribute to sources of work stress and identify the various conditions that bring staff into the work using appropriate coping strategies and providing clear and specific job description, flexible work schedules, fair treatment and regular meeting between supervisors and their staff nurses to discuss and solve their problem.
- Nurses assess the factors that affect occupational stress and give each other support in order to improve performance and nursing care to their patients.
- Allowing nurses to express their opinions regarding hospital policy through meeting interviews.
- Nursing administration responding properly to nurses complains and problems.
- Both nurses and nurse managers must be willing to work together to develop a climate of mutual trust that fosters a genuine commitment to organizational goals, to provide quality patient care

- Nursing administration improving a trust relationship between managers and nurses.
- Periodic assessment & evaluation of levels of occupational stress and organizational commitment.

Nursing practice:

- Provision of administrative system that enhances staff nurses' perception of occupational stress .
- Improving the communication means and channels between staff nurses and the administration, in addition to adequate staffing.
- In-service education programs for staff nurses must be incorporated in hospital staff development system to enhance their organizational commitment.

Nursing education:

Nursing graduate and postgraduate curricula must include the subjects of occupational stress and organizational commitment.

Further research:

- Further studies are necessary to identify and clarify the specific coping strategies used by nurses, and to increase understanding regarding the relationship between the experience of stress and the effects of stress .
- Further studies are suggested to investigate the effectiveness of implemented programs in improving occupational stress and organizational commitment .
- Assessment of the factors influencing occupational stress and organizational commitment .

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