



Impact of Training Program About Occupational Stress Among Teaching Staff Members in Faculty of Nursing at Suez Canal University

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Abstract: Background: Occupational stress is often used as a term to denote the emotions people feel in upsetting circumstances. Teaching staff in faculty are stressed also are additional seemingly to be unhealthy, poorly motivated and fewer productive and fewer safe at work. Aim: the study aimed to assess impact of occupational stress among teaching staff members. Design: A quasi- experimental design was utilized in this study. Setting: the study was conducted in the faculty of nursing at Suez Canal University. Subject: all teaching staff members working in the previous study setting. Tools of the study: Two tools were used to conduct this study; tool I: occupational stress questionnaire which was used to assess stress level, tool II: observation checklist which was used to assess occupational stressors Results: The study revealed that, above half of the studied group (56.1%) was high occupational stress level in preprogram, with stress slightly decrease in the post immediate program (52.6%) and high decreased (12.3%) in the follow-up, with significant difference between pre/ post and follow up phases of program implementation ($p < 0.0001$). The total mean score for occupational stressors among studied sample was high in administrative stressors (35.532 ± 6.8430) and was also high in organization stressors (27.035 ± 5.0339). While, lowest was in social stressors (8.906 ± 2.1808). Conclusion: There was statistically significant improvement in teaching staff occupational stress level before and after the implemented program Recommendation: providing occupation stress management program periodically to improving personal coping mechanism and institute work/life balance strategies.

Keywords: Occupational Stress, Occupational Stressors, Teaching Staff

1. Introduction

Stress is that the increase of stressed activities among teachers in universities, which require for investigation. The impact of occupational stress practiced by university teacher was extremely vital as a result of it should have an effect on the educators, and their learner [12]. Stress can be a physical, mental, or emotional issue that causes bodily or mental tension. Stresses is external (from the environment,

psychological, or social situations) or internal (illness, or from a medical procedure). Stress can initiate the "fight or flight" response, a posh reaction of medical specialty and medical science systems [2].

Stress is "an explicit relationship between the person and therefore the atmosphere that's appraised by the person as onerous or exceeding his or her resources and endangering his or her well-being" [17]. Stress is unpleasant psychological method that happens in response to environmental pressures [19]. As well as, stress is that the

body's method of rising to a challenge and getting ready to fulfill powerful state of affairs with focus, strength, stamina and heightened alertness could be a method during which environmental events or forces threaten the well-being of the people within the society [2].

Occupational stress is stress associated with one's job. Occupational stress usually stems from surprising responsibilities and pressures that don't align with human information, skills, or expectations, inhibiting one's ability to cope. Work stress will increase once staff doesn't feel supported by supervisors or colleagues, or feel as if they need very little management over work processes [24]. Occupational or job stress may be defined as a "mechanism whereby the human body attempts to adapt to the environment." The body has a normal mechanism for dealing with stressful situations that is known as the "fight or flight" response. As soon as the brain senses danger, it sends messages (electrical, chemical, and hormonal) that stimulate the extra energy needed to fight the danger or run away from it. The stress cycle always includes the danger stimulus, the removal of the danger, and a state of relaxation [25].

Teaching staff members play an important role within the creation and development of data and innovation, additionally to education and coaching. It's well documented that top levels of activity stress, left ungoverned and unmanaged, undermine the standard, productivity, and creativeness of employees' work, additionally to employees' health, well-being, and morale. It is necessary that universities manage and protect their staff from increasing levels of stress to preserve staff well-being, structure performance and also the intellectual health of the state. To do this, we've a bent to first should understand the experience of stress on staff within the university sector [6].

Organizations are developing comprehensive health promotion ways for his or her staff that embrace numerous forms of individual level stress management programs. Stress management programs usually incorporate respiration and stretching exercise, yoga, meditation, and massage. The programs' goals are to cut back the adrenalin hormone response to minor stress [17]. Conducting stress management programs at organizational level, with the target creating awareness regarding stress and making staff to learn to stress management techniques [15].

1.1. Significance of the Study

During my presence in the Faculty of Nursing at Suez Canal University in Ismailia City, I noticed the complaint of the faculty teaching staff about the constant work stress. From researcher point of view teaching staff members have greater positions, they focus on activities, teach, guide, and training of students. However, inherent in this occupation are numerous sources of stress which has negative effects on their teaching and learning to their students.

1.2. Aim of the Study

This study aimed to assess impact of occupational stress

among teaching staff members.

1.3. Research Objectives

1. To assess occupational stress among teaching staff members in the Faculty of Nursing at Suez Canal University in Ismailia City.
2. To adopt, implement and evaluate occupational stress program for teaching staff members.

2. Subjects and Methods

2.1. Research Design

A quasi- experimental research design was used.

2.2. Study Setting

The study was carried out at Faculty of Nursing in Suez Canal University in Egypt.

2.3. Subjects

The study group include all teaching staff members (n=57) working at the same previous study setting on 2015, with different positions; the sample included (3) assistant professors, (11) lecturers, (18) assist lecturers and (25) demonstrators.

2.4. Tools of the Study

Tool (I): Occupational stress questionnaire:

Part (1) Socio demographic characteristics: This part included Socio demographic characteristics of the study group such as: age, gender, marital status, scientific department, and academic position.

Part (2) Occupational Stress Questionnaire: It was developed by researcher and based on (21), (20). To assess the stress level among the teaching staff Members at Faculty of Nursing in Suez Canal University. It included 106 items which divided into three sections as a follows: Stress-related factors: It contained 63 items Scoring system: The items were scored as 0, 1, 2, and 3 for no stressful statues, occasionally stress, stress and very stressful respectively. Stress signs and symptoms: It contained 26 items. Scoring system: The items were scored as 0, 1, 2, and three for never felt of stress symptoms, rarely felt of stress symptom, sometimes felt of stress symptoms, and often felt of stress symptoms respectively. Stress coping strategy: It included 17 items. Scoring system: The items were scored as 1, and 2 point. The respondents check their answers; no I didn't use stress coping strategy and yes I used stress coping strategy respectively.

Tool (II): Occupational stressors observational Checklist: It was developed by the researcher based on (22), and (19), (5) to assess occupational stressors among study group. It included (56 items). Scoring system: The items were scored as 1, 2 for absence of stressors, and presence of stressors respectively.

2.5. Methods of Study

- a) Official permission was taken from Vice Dean of

Faculty of Nursing, Suez Canal University to carry out the study and a verbal consent was obtained from the respondent before their inclusion in the study after explaining the nature and the aim of the study to obtain the cooperation during implementing phase of the study.

- b) It was verified by a panel of 9 experts' in nursing administration including two from faculty of nursing, Cairo University and 7 from faculty of nursing, Ain Shams University. They revised the clarity, relevance, applicability, comprehensiveness and easy understanding of questionnaires. According to their opinions, the required modifications were applied.
- c) A pilot study was to test the clarity, applicability, efficiency of the tool and estimate the required time to gather data. It was conducted on 10% of study sample (6 teaching staff members) included in the sample. The results of the data obtained from piloted study helped in modification of the tools, and items were corrected or added as needed. Accordingly, modifications were done and the final form was developed.

The program conducted in three phases:

Educational program:

The aim of the program was to reduce occupational stress and improve decision making among teaching staff members. Data were collected (from beginning of July, 2017 to ending of December 2018)

Phase I: (preparatory):

Prepared teaching material as audiovisual material, hand out assesses teaching staff level of stress. The researcher collects data from the teaching staff members by using questionnaire sheet (occupational stress), assessed teaching staff occupational stress and used stressors observation checklist to assessed stressors in work place. The questionnaire sheets were filled by the teaching staff members while they were on duty within 30 to 45 minutes. An observational checklist for the Teaching Staff Members' stressors was carried out by the researcher. Study tools were filled in about 15 minutes to 30 minutes in the interview in pre test. Two months for pretest (from the beginning of July 2017 to the ending of August 2017).

Program description: Contents: covered all areas regarding occupational stress include: Definition of occupational stress causes of occupational stress, sign and symptoms of occupational stress, effects of occupational stress on College, broad organization goals to reduction of stress, the manager role of occupational stress committee, organization strategies to improve personal coping mechanism of stress, how to avoid and reduce occupational stress, and ways to reliving with stress when occur.

The program designed to be practical and addressing knowledge for teaching staff members. The program construction gone through the following phases:

Pre planned phase include:

A. The frame wok for the program.

B. Setting general objective.

C. Allocation of program resources.

D. Constructed of evaluation device to measure the program effectiveness (pre- post and follow-up questionnaire).

Planning phase include

Determine the pagan strategies (time table, sessions, teaching methods and media and evaluation methods, select the teaching place (staff's office)

Phase II: Implementation

Nine months to implementing the program (from the beginning of September, 2017 to the ending of May, 2018) number of sessions for program was 36 sessions for all scientific departments in the faculty. This content developed and selected based on identified need and demands of teaching staff and on the light of literature.

The teaching staff divided to 6 groups according this working scientific department the program implemented for each group. The program presented in clear, concise. Lecture by using suitable teaching aid

Phase III (Evaluation):

Immediate Posttest (from beginning of June, 2018 to ending of July, 2018) and after 3 months from the post test, the follow up test was done and take two months (from beginning of November, 2018 to ending of December, 2018). An evaluation for the teaching staff members was immediately after the end of the program post as well as after three months from the post test of program implementation. Follow up was done to assess teaching staff members' occupational stress and decision making. Evaluation of the effect of the program was done by comparing changes in teaching staff members' practice and knowledge pre, post and follow up study, using the previous tools.

2.6. Ethical Consideration

The agreement of teaching staff participating of the subject was taken after the study aims had been explained to them with given opportunity to effuse to participate

2.7. Statistical Design

At the end of the field work, the obtained data set was coded and transformed into coding sheets. The results were checked then; data is inserted in Statistical Package of Social Sciences (SPSS) version 19 using computer software. Suitable descriptive statistics including frequency, percent distribution, mean and standard deviation were used to describe different characteristics. Post-Hoc paired comparisons test was used to test the significance of results of paired qualitative variables, and a nova test to test the significance of results. Pearson correlation test was conducted to evaluate the correlation between occupational stress and decision making. The value was considered when $p < 0.05$ and a highly significant level value was considered when $p < 0.001$.

3. Result

Table 1. Frequency distribution of the studied teaching staff members regarding socio demographic characteristics (no=57).

Demographic data	No=57	%
Age		
<26	15	26.3
26-35	25	43.9
36-45	15	26.3
46-55	2	3.5
Gender		
Male	8	14.0
Female	49	86.0
MS		
Married	37	64.9
Single	20	35.1
Position		
Demonstrator	25	43.9
Assistant Lecturer	18	31.6
Lecturer	11	19.3
Assist professor	3	5.2
Department		
Administration	8	14.0
Community	9	15.8
Medical & Surgical	12	21.1
Obstetric	9	15.8
Pediatric	11	19.3
Psychiatric	8	14.0

Table 1 Shows that about half of subjects (43.9%) were aged from 26-35 years old. While, 3.5% of them aged from 46-55 years old. In addition that, the highest percentage of them (86.0%, 64.9%, 43.9%, and 21.1%) were female, married, demonstrators and working in Medical Surgical department respectively.

Table 2. Percentage of sample knowledge regarding occupational stress signs and symptoms score pre/ post and follow up the program implementation (no=57).

Stress signs and symptoms	No Stress		Stress		χ^2	P
	No	%	No	%		
Pre	20	35%	37	65%	38.7	<0.0001**
Post immediate	22	38.6%	35	61.4%		
follow-up	54	94.7%	3	5.3%		

Table 2 Reveals that about two thirds (65%) of the studied group had high stress signs and symptoms level in pre-program, with a slightly decrease in post (61.4%) and high decrease in follow-up (5.3%). There was a significant difference among three phases of the program i.e. pre, post, and follow up ($p < 0.0001$).

Table 3. Percentage of sample practice regarding occupational stress coping strategy score pre/ post and follow up the program (no=57).

Stress coping strategies	Not use coping		Use coping		χ^2	P
	No	%	No	%		
Pre-test	4	7.0%	53	93.0%	5.8	0.049*
Post immediate	2	3.6%	55	96.4%		
Post follow-up	1	1.8%	56	98.2%		

The table 3 Reports that the majority (93%) of the studied group use stress coping strategies in preprogram, and increase in post and follow up program implementation (96.4%, 98.2%) respectively. There was a significant difference between pre, post and follow up phases of program ($p < 0.05$).

Table 4. Frequency Distribution of sample regarding total stress level in the pre/ post and follow up phases of the program (no=57).

Total occupational stress score	No stress		Stress		χ^2	P
	No	%	No	%		
Pre-test	25	43.9%	32	56.1%	32.2	<0.0001**
Post immediate	27	47.4%	30	52.6%		
Post follow-up	50	87.7%	7	12.3%		

Table 4 Shows that, above half of the studied group (56.1%) was high occupational stress level in preprogram, with stress

slightly decrease in the post immediate program (52.6%) and high decreased (12.3%) in the follow-up, with significant difference between pre/ post and follow up phases of program implementation ($p < 0.0001$).

Table 5. Frequency Distribution of studied sample regarding Occupational stressors in pre/ post and follow up phases of the program (no=57).

Occupational stressors	Stressors		No stressors		χ^2	P
	No	%	No	%		
Pre	54	94.7%	3	5.3%	12.0	<0.0006**
Post	47	82.5%	10	17.5%		
follow-up	40	70.2%	17	29.8%		

The table 5 Shows that, the highest percentage (94.7%) of studied group had occupational stressors in pre-program implementation, with slightly decreased (82.5% and 70.2%) in post and follow-up respectively. In addition, there was a significant difference for occupational stress in pre/ post and follow up program implementation (p -value=0.0006).

Table 6. The mean score of Occupational stressors among the studied sample in pre, post, and follow-up phases of the program (n=57).

Occupational stressors	Pre		Post		Follow	
	Mean	SD	Mean	SD	Mean	SD
Organization	26.89	5.0628	27.10	5.0628	27.10	5.0628
	Total (27.03±5.0339)					
Administrative	43.40	3.9815	31.59	3.9815	31.59	3.9815
	Total (35.532±6.8430)					
social:	9.281	2.1774	8.719	2.1774	8.719	2.1774
Interpersonal	8.526	1.4529	6.474	1.4529	6.474	1.4529
Conflict	3.158	.8822	2.842	.8822	2.842	.8822
	Total (8.906±2.1808)					
Staff:	11.68	1.5371	9.316	1.5371	9.316	1.5371
Work	31.15	2.8710	22.84	2.8710	22.84	2.8710
Teach	7.158	1.0655	4.842	1.0655	4.842	1.0655
Career	5.088	.9118	3.912	.9118	3.912	.9118
	Total (10.10±1.8944)					
Total	91.26	9.5310	76.73	9.5310	76.73	9.5310
	Total (81.57±11.7021)					

The table 6 Reports that. The total mean score for occupational stressors among studied sample was high in administrative stressors (35.532±6.8430) and was also high in organization stressors (27.035±5.0339). While, lowest was in social stressors (8.906±2.1808).

4. Discussion

Stress is that the increase of stressed activity among educators in universities, this result itself needs investigation. The impact of activity stress practiced by university educators was extremely vital as a result of it should have an effect on the educators and their learners [12]. A wide range of stressful experiences can influence human decision making in complex ways beyond the simple predictions of a fight-or-flight model. Recent advances may provide insight into this complicated interaction, potentially in directions that could result in translational applications. Early research suggests that stress exposure influences basic neural circuits involved in reward processing and learning. Among this biases are habit and modulating our propensity to engage in risk-taking [17].

Regarding to socio demographic characteristics of teaching staff members, findings revealed that about half of study group aged from 26-35 years old. The highest percentage of them were female, married and had demonstrator position and working in Medical Surgical department. This finding is

congruent with that of [9] in Hafr Al-Batin Saudi University who found that the majority of respondents were mainly female, about half were in the age group from 26 to 35 years, and the majority was married.

Regarding stress signs and symptoms, this study found there was a high statistically significant difference in stress signs and symptoms scoring as regard pre and follow up the program. This may be because the teaching staff members learned during the program how to deal with occupational stress by coop with change, do exercise and deep breathing relaxation technique, minimize stress in environment, job multitasking.

These findings agree with study by [20] who investigated the relationship between cortisone levels and temporal discounting task. He reported that lower corticosteroid levels were shown to be related to larger discounting rates, indicating that participants with lower corticosteroid levels created additional impulsive selections.

On the other side, [7] found that not all stress is negative was examined, and it had been concluded that mindset could mitigate the negative effects sometimes related to stress. It was found that a 'stress-is-enhancing' mindset had a positive impact on health, as opposed to a 'stress-is-debilitating' mindset. Moreover, there is an emerging body of literature investigating the concept of posttraumatic growth, or the 'growth' reported by some individuals after a traumatic life experience (e.g., cancer), which suggests that stressful life

experiences can profoundly impact individuals in a positive way.

Regarding stress coping strategy practice, this study found there was a significant difference between pre and follow the program. That because the teaching staff members have academic background knowledge about stress coping strategy but don't know how applied it in the real situation, but during the program the researcher learn them about new coping strategy as; stress busting food, deep muscle relaxation, stress log, reward you self, social support and how to apply it in real situation.

This finding agrees with [18]. Who found Stress is not value-free, and for some teachers, coping with work stress is also related to success, and "failing to cope" related to failure found that male managers according cope methods which might be classified as "avoidance / withdrawal", while female managers according that they were a lot of likely to speak to others and look for social support than male managers.

Regarding total stress level, this study found there was more than half of the studied group had high stress level preprogram, about half post immediate and minority post follow-up. From the researcher point of view this result may be due to work over load and small number of teaching staff members, the staff work and study to received career development in same time. And after the program the teaching staff learns how applied stress coping strategy and they reconcile their work duties and other duties as study.

This finding agrees with [9] who found the response rate from four colleges about two third had high stress level. And the present study corresponding with [6] who found that the majority of sample high levels of psychological stress were observed. The findings also go in line with [1] who showed that majority of the staff operating in little and Medium Scale Enterprises practiced high level of activity stress. The study showed that about half were extremely stressed.

Regarding work stressors, this study found there was highest statistically significant difference in occupational stressors pre, post and follow-up regarding administrative, social concerning interpersonal stressors, work over load, teaching and career development. This may due to more than one manger from deferent specialties, work over load, not clear work roles, take work at home, increase paper work, don't take break between the duties, and work with large number of students that is in pre the program but after the program the staff learn how multitasking the job, not take work at home, take break between the duties, and apply stress coping strategies.

This study agree with [4] known stress causing factors in educational staff to include: work overload, homework interface, and role ambiguity and performance pressure. In addition agree with [11] who discovered that; poor social environment and lack of support or facilitate from co-workers and supervisors are considered job stressors. Poor social environment and lack of support or facilitate from co-workers and supervisors are considered job stressors.

This finding disagree with [14] who found the organizational change, like economy, implementation of recent equipment or plant and restructuring, will and infrequently does cause stress and will increase in injury/illness. And also disagrees with [3] who found that: role overload and physical environment and in all the other scales of all dimensions are having no significant difference was found between the groups. The employees reported that the high level of responsibilities for the activities and work performance of subordinates. Then no personal strain was reported at any level.

5. Conclusion

The study concluded that the program was greatly effective with statistically significant improvement in teaching staff knowledge and practice in reducing occupational stress before and after program. The result shows more than half of the studied group had high stress level before the program, and decreased after the program implementation. There was statistically significant improvement in their practice in stress coping strategies to control the stress after program implementation.

6. Recommendations

The study recommends the following:

Putting strategy to improve personal coping mechanism as:
Improving the diet of employees as offer nutritional foods at the worksite, type a healthy snacks club.

Applying institute Work/Life Balance Strategies for teaching staff members by:

Providing them flexible time schedule, allowing work at home, Install child care initiatives, and contract contacting a local hospital to provide child care for employees' sick children.

- a) Providing periodic training in effective cognitive strategies concerning healthy stress reducers.
- b) Providing comprehensive education and training courses about communication, conflict resolution and team building to reduce occupational stress.

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