

Job Strain Coping Strategies, and its Effect on Nurses Performance in South Egypt Cancer Institute

Rola Samy Nessian¹, Soad Ahmed Ghallab² & Karima Hosny Abdel hafez³

¹ Nursing Supervisor in South Egypt Cancer Institute Bachelor Degree in Nursing Science Egypt.

² Professor of Nursing Administration, Faculty of Nursing, Assiut University, Egypt.

³ Assistant Professor of Nursing Administration, Faculty of Nursing, Assiut University, Egypt.

Abstract:

Background: Staff nurses' strain are reported among oncology nurses to affect coping strategies and dramatically and rapidly causing fundamental transformations that have an impact on staff nurses performance. **Aims:** To explore effects of job strain coping strategies on nurses performance. **Research design:** Descriptive correlation design was used. **Setting:** South Egypt Cancer Institute, Assiut University. **Subject:** Consisted of 320 nursing staff. **Tools:** Three tools were used; Personal characteristics data sheet, Job Content Questionnaire, Revised Ways of Coping Questionnaire and Observational Performance Checklist. **Results:** The highest percent of nursing staff apply coping strategies. There is a high statistical significant correlation between problem focused coping strategies , gender, marital status, level of education, occupation, and attending training courses of the studied nursing staff (.027*,0.037* ,0.001* ,0.006* ,0.000*). There is a high statistical significant correlation between emotion focused coping strategies, level of education, occupation, and attending training courses of the studied nursing staff. (0.001*, 0.003*, 0.000*) **Conclusion:** There is a negative statistical correlation between job strain, coping strategies and nurses performance (-0.004* and 0.000* respectively). **Recommendation:** Providing workshops and training programs for nurses about the role of coping strategies in reducing job strain and improving work performance.

Keywords: Coping Strategies, Job Strain, Performance, & Oncology Nurses.

Introduction:

Job strain is the detrimental mentally and physically response to a poor match between a worker's capacities, materials, or requires and job overloading, Nursing is usually seen as an exhausting and demanding profession, and nurses are more commonly subjected to strain-provoking circumstances than other professions (Metlaine et al., 2018).

Undoubtedly, nurses are subject to a variety of work-related stresses that might negatively affect their sense of accomplishment, resulting in poor work output, absenteeism, and intentions to quit their jobs or even the nursing field (Said & El-Shafei, 2021).

When faced with stressful situations at work, nurses adopt a number of strategies for coping. Coping strategies are methods that a person uses to lessen or eliminate the negative impacts of strain (Piotrowski et al., 2022).

Problem-focused coping strategies (PFCSs) and emotion-focused coping strategies (EFCSs) are two essential coping mechanisms that depend on interactions between the person and their work setting. However, according to study, people use both PFCSs and EFCSs under difficult and stressful circumstances (Altnsoy & Aypay, 2021).

Emotion-focused coping strategies (EFCSs) may have an adverse effect on a person's ability to develop,

maintain good health, and enjoy overall wellbeing. When interacting with job performance in view of nurse retention issues, these results are certainly important for nursing administrators/managers (Egbekpalu & Nwafor, 2021).

The efficacy of a nurse in performing the tasks and responsibilities associated with providing direct patient care can be seen as a measure of work performance (Keshk et al., 2018). According to theory, work performance is thought to be inversely correlated with job strain and emotion-focused coping strategies (EFCSs) (Martinez et al., 2020). But little is understood about the connections between job-related strain, methods of coping, and work performance in the nursing field, particularly among oncology nurses.

Due to the fact that the healthcare work settings is becoming more complicated, there is a severe nursing shortage, there are more people getting cancer, and oncology nurses are now seen as playing a crucial role in ensuring the safety of patients. To maintain an appropriate oncology nurse workforce and secure working conditions, it is essential to have a better knowledge of how job strain and methods of coping affect oncology nurses' performance at work. (Dwi, 2018).

Several hours spent by nurses providing routine nursing care for complicated activities result in a

variety of workplace strains that may affect their sense of accomplishment, cause poor work performance, cause lack of attendance, and possibly cause them to quit their job or their chosen field of nursing. Oncology nurses have observed that job strain has a significant and quick influence on methods of coping, leading to basic modifications that undermine staff nurses' performance. (Bartzik, et al., 2021)

Significance of the study

While the researcher reviewing the literatures found that there were four internationally studies published in professional periodicals and journals. The first, study titled by Job stress and coping mechanisms among nursing in personnel public health care."done by Beh & Loo, (2021).

" The second, one titled by" Job Strain, Coping Strategies, and Job Performance among Oncology Nurses Working in Saudi Oncology Care environment" done by Wazqar, (2015).

The third one titled by" Relationships between work strain, coping strategies and Job performance among oncologist nurses working in Saudi oncology care health settings "done by Wazqar et al., (2017).

The fourth one titled by" An integrative review of the impact of work strain and coping on Nurses Job Performance: understanding the holes in oncology nursing Study "done by Wazqar et al., (2017). Furthermore no national studies focused on the connection between job strain coping strategies and its effect on Nurses Performance. This study was done to concentrate on this relationship since prior studies show that it has a lake of interest to this relation so this study conducted to focus on this relation. During work at South Egypt Cancer Institute, the researcher observed that there was an increase in job strain among Nursing staff due to lack of sufficient awareness regarding the job strain coping strategies that may affect their Performance. The researcher was encouraged to carry out this study in order to ascertain the association between job Strain coping strategies and their effect on nurses' performance. As Challinor et al., (2020) said, keeping an appropriate supply of oncology nurses and safe working conditions requires an increased awareness of the effect of job-related strain and coping strategies on oncology nurses' work performance .

Aims of the study:

The present study was conducted at South Egypt Cancer Institute affiliated to Assiut University to fulfill the following objectives :

1. Assess factors leading to job strain.
2. Explore job strain coping strategies used by nurses if found.

3. To explore effects of job strain coping strategies on nurses performance.
4. Determine relationship between Personal characteristics, job strain coping strategies and performance.

Research questions

To achieve the objectives of the current study the following research questions are formulated:

1. What are the factors leading to Nurses Job strain?
2. What are the coping strategies utilized by nurses to handle / cope with Job strain?
3. Do coping strategies reduce the influence of job strain on job performance among oncology nurses employed in South Egypt cancer Institute?
4. What are the relation between personal characteristics, job strain, coping strategies and nursing staff performance?

Subject & Method:

Technical design

It contains the research design, setting, study subject, and data collection tools

Research Design

A correlation descriptive design was used to carry out the present study.

Study setting:

The study was carried out at South Egypt Cancer Institute affiliated to Assiut University with total beds no=307. The institute consists of two buildings: free building and private building, Free building consists of three floors, each floor consists of two units Medical and Surgical. Medical units which divided into two units 1st Male Medical unit (40) beds. 2nd Females Medical unit (40) beds. Surgical units which divided into two units. 1st Male Surgical unit (32) beds. Females' Surgical unit (32) beds. The last floor consists of two units. The first children unit (40) beds and ICU unit (24) beds.

The private and administrative building for pediatric , medical, radiation and surgical oncology patients, For faculty members, Free and with health insurance patients, It consists of seven floors, the first floor is for outpatient clinics, the second floor is for oncology Medical ICU (10) beds and the one-day chemotherapy department. The third floor is for the offices of department heads, the fourth special floor (27) beds, and the fifth special Floor (40) beds .The sixth special floor (22) beds, the seventh floor is for the bone marrow transplantation unit.

Subject:

The study subjects consisted of all available nursing staff employed in South Egypt Cancer Institute with Total number of 320 (Nurses 290 and nurse supervisor 30).

Data Collection Tools:**Three tools were used for data collection**

First Tool: A self-administrative questionnaire sheet consisted of 2 parts:

Part I: Personal characteristics data sheet which included data about: unit, age, gender, marital status, current job title, Educational qualification, years of experience and attendance of training courses.

Part II: Job Content Questionnaire (JCQ):

It was created by **Wazqar (2015)**. It consisted of 14-items that aimed to assess psychological job demands and decision latitude (control) which broken down into four subscales:

Psychological job demands (5 items), decision latitude (9 items), divided into decision authority (3), and skill discretion (6). Rated from strongly disagree to strongly agree on a 4-point Likert scale.

Scoring system

The strain by subtraction approach, as proposed by **Santos, et al. (2017)**, was used to generate the work strain score using the difference between the mean psychological job demands and the mean choice latitude. Higher ratings (more than 80) indicated greater levels of work-related strain.

Second Tool: Revised Ways of Coping Questionnaire (RWCQ)

It was developed by **Wazqar et al., (2017)** The RWCQ is a 50-item test intended to assess how people respond to the interior and/or outside demands of specific challenging circumstances. The problem focused coping strategies (PFCS) and Emotion focused coping strategies (EFCS) constructions are both included in the RWCQ. Four subscales make up the concept of problem-focused coping strategies: positive reappraisal (7 items), accepting responsibility (4 items), planful problem-solving (6 items), and self-controlling (7 items). Four more subscales make up the emotion-focused coping strategy construct: escape-avoidance (8 items), distance (6 items), seeking social support (6 items), and confrontational coping (6 items).scored on a Likert scale with a maximum score of 4 (0 "does not apply and/or not utilised.1 "used a little," 2 "used a fair amount," and 3 "employed a lot").

Scoring system

Regarded score the RWCQ, all items in each subscale are added together to provide a coping strategy score. These eight scores are referred regarded as the "raw scores" by **Wazqar et al. (2017)**. High raw scores reveal the predominate coping mechanism people adopt while under stress. In this study, a combination score (PFCSs/EFCSs sub-scale scores) was utilized to assess oncology nurses' coping abilities. The RWCQ may usually be finished in 10 minutes depending on how the participants answer.

Third Tool: Observational Performance Checklist tool:

It was modified by the researcher which consists of (77items), (55 items) which were taken from Youssif et al. (2017). These elements include attendance and punctuality (3 sub items), appearance (4 sub items), routines at work (8 sub items), relations with staff (6 sub items),and interactions with patients(7 sub items), , nursing care plan activities (8 sub items),, supplies planning (1 sub item) security precautions and safeguarding patients (6 sub items), documentation (6 sub items), and coordination.(1 sub item) and (22 items) that were included to the activities nursing care plan)

Scoring system:

The responding scoring system was measured by (0) for not done, and (1) for done.The overall degree was between 0 and 77.

Administrative design

An official permission to carry out this study had been obtained from the Dean of Faculty of Nursing-Assiut University, Manger of south Egypt Cancer Institute, Nursing Director, to collect of necessary data for pilot study. Also the oral consent permission will be obtained from all nursing to participated

Ethical Consideration:

Study proposal was taken Approval from Ethical Committee of Faculty of Nursing of Assiut University. And during application of the research there is no risk for study participants The objective of this study was clarified to all participants and their oral agreement was obtained from them .Study participants have a right to refusing or to participate and/or leave from the study at any time with no providing a reason. During data collection, confidentiality, anonymity, and privacy of the collected data were all maintained.

Operational design:

The study was conducted throughout three main phases: 1st preparatory, 2nd pilot study, and 3rd data collection as:

Preparatory phase

- This phase lasted roughly six months, from March to August 2021.
- After reviewing the relevant literature, an Arabic translation of the study tool was made.
- The face validity (Jury) of the study tool was examined by 3 professionals in nursing administration and 2 professionals in nursing psychiatry (a jury of five experts in the specialty) to ensure that the questions were relevant, comprehensive, and clear. As a result, changes were made and final form was generated and developed of the Nursing Administration Department, Faculty of Nursing, Assiut University.

Pilot study

Before beginning the real data collection, a pilot research was conducted to assess the study instruments' clarity, accessibility, and understandability as well as to estimate how much time would be needed. Additionally, to recognize potential issues that can arise during the actual data collecting. Thirty-Two nurses which represent (10%) of total number (3 head nurse 29 staff nurses) were subjected to it, and the necessary modification was done. The healthcare providers participating in the pilot research were included in the whole total of healthcare providers under study since the data from the pilot study was analyzed and no changes were made to the study instrument.

Using the Cronbach's Alpha Coefficient test, the study tool's reliability was evaluated; the result was ($\alpha=0.932$).

Data collection:

The researcher contacted with the studied nurses during their scheduled shifts (morning, evening, and night shifts) to clarify the study's goals and solicit

their involvement. Following oral agreement, the research tools were handed to the nurses to be filled. Each participant spent roughly twenty minutes to complete the questionnaire using self-administered data resources. The researcher observed the nurses while providing care to the patients, the researcher then took the average of three direct observation made during various shifts for each nurse to evaluate their performance on the job. The entire data gathering period lasted from September to December 2021, or almost four months.

Statistical design:

Data were analyzed, tabulated, coded, and readied for computer entry. Statistical Soft Ware Package for Social Science (SPSS) version 24 was used for both the statistical analysis. Descriptive statistics were used to show the data as frequencies, percentages, means, chi-squares, and standard deviation. The inter-relationships between the quantitative variables were evaluated using coefficient correlation. The threshold for statistical significance was set at P - value ≤ 0.0

Result:**Table (1): Personal characteristics of the studied nursing staff at south Egypt cancer institute (n=320).**

Personal data	No. (320)	%
Age: (years)		
< 30	114	35.6%
30 – 35	103	32.2%
> 35	103	32.2%
Mean \pm SD (Range)	31.89 \pm 6.16 (22.0-50.0)	
Gender:		
Female	284	88.8%
Male	36	11.2%
Marital status:		
Single	65	20.3%
Married	250	78.1%
Widow	5	1.6%
Level of education:		
Secondary school in nursing diploma	99	30.9%
Technical institute of nursing	191	59.7%
Bachelor degree in nursing science	30	9.4%
Occupation:		
Nurse	290	90.6%
Nursing supervisor	30	9.4%
Place of work:		
Private	132	41.2%
General	188	58.8%
Years of experience:		
< 5	67	20.9%
5 - < 10	78	24.4%
10 - < 15	83	25.9%
≥ 15	92	28.8%
Mean \pm SD (Range)	11.22 \pm 6.75 (1.0-31.0)	
Attending training courses about coping strategies:		
Yes	112	35.0%
No	208	65.0%

Kruskal Wallis test.

statistical significant difference ($P < 0.05$)

Table (2): Mean of Job strain score, Coping strategies and performance as reported by the studied nursing staff at south Egypt cancer institute (n=320).

	Mean \pm SD	Range
Coping strategies	80.64 \pm 21.90	43.0-127.0
Problem focused coping strategies	40.44 \pm 11.80	20.0-66.0
Self-controlling	11.56 \pm 3.51	6.0-21.0
Accepting responsibility	6.07 \pm 2.08	1.0-12.0
Planful problem solving	10.72 \pm 3.80	5.0-18.0
Positive re-appraisal	12.09 \pm 3.93	4.0-21.0
Emotion focused coping strategies	39.95 \pm 11.24	17.0-69.0
Confrontive. Coping	9.43 \pm 3.24	2.0-18.0
Distancing	8.64 \pm 2.79	3.0-15.0
Seeking social support	9.80 \pm 3.33	3.0-17.0
Escape-avoidance	12.08 \pm 4.10	2.0-23.0
Performance domains	53.80 \pm 9.54	27.0-77.0
Job strain	-28.17 \pm 7.02	-45.0 to -10.0
SD (Skills discretion)	33.70 \pm 4.04	24.0-44.0
DA (Decision authority)	31.64 \pm 3.59	20.0-40.0
DL (Decision latitude)	65.34 \pm 5.60	52.0-80.0
(Psychological demand)	37.17 \pm 4.42	27.0-48.0

Kruskal Wallis test.

statistical significant difference ($P < 0.05$)**Table (3): Relation between coping strategies (Problem focused coping strategies) and the personal data of studied nursing staff at South Egypt Cancer institute (n320)**

Personal data	Problem focused coping strategies		P-value
	Mean \pm SD	Range	
Age: (years)			
< 30	41.98 \pm 10.67	20.0-65.0	
30 – 35	39.71 \pm 12.90	23.0-66.0	0.218
> 35	39.47 \pm 11.77	22.0-66.0	
Gender:			
Female	40.96 \pm 12.02	22.0-66.0	0.027*
Male	36.36 \pm 8.97	20.0-50.0	
Marital status:			
Single	39.89 \pm 10.65	20.0-57.0	
Married	40.32 \pm 12.03	22.0-66.0	0.037*
Widowed	53.80 \pm 6.57	49.0-61.0	
Level of education:			
Secondary	38.67 \pm 12.14	20.0-66.0	
Technical institute	42.15 \pm 10.24	24.0-61.0	0.001*
Bachelor	46.07 \pm 12.16	24.0-65.0	
Occupation:			
Nurse	39.86 \pm 11.62	20.0-66.0	0.006*
Nursing supervisor	46.07 \pm 12.16	24.0-65.0	
Place of work:			
Private	40.74 \pm 13.14	24.0-66.0	0.702
General	40.23 \pm 10.79	20.0-65.0	
Years of experience:			
< 5	38.33 \pm 12.99	24.0-63.0	
5 - < 10	39.22 \pm 10.97	23.0-56.0	0.085
10 - < 15	41.93 \pm 11.10	20.0-65.0	
\geq 15	42.25 \pm 11.71	22.0-66.0	
Attending training courses:			
Yes	45.34 \pm 9.64	24.0-66.0	0.000*
No	37.80 \pm 12.03	20.0-65.0	

Kruskal Wallis test.

statistical significant difference ($P < 0.05$)

Table (4): Relation between coping strategies (Emotion focused coping strategies) according to personal data of studied nursing staff at South Egypt cancer institute (n320).

Personal data	Emotion focused coping strategies		P-value
	Mean ± SD	Range	
Age: (years)			
< 30	40.25 ± 10.27	23.0-59.0	
30 – 35	38.64 ± 11.52	17.0-57.0	0.328
> 35	40.91 ± 11.93	21.0-69.0	
Sex:			
Female	40.28 ± 11.22	21.0-69.0	0.135
Male	37.31 ± 11.19	17.0-57.0	
Marital status:			
Single	37.72 ± 9.56	17.0-53.0	
Married	40.39 ± 11.59	21.0-69.0	0.091
Widow	46.80 ± 9.31	40.0-57.0	
Level of education:			
Secondary	38.28 ± 10.37	23.0-57.0	
Technical institute	41.42 ± 12.26	17.0-69.0	0.001*
Bachelor	45.67 ± 10.77	21.0-59.0	
Occupation:			
Nurse	39.36 ± 11.13	17.0-69.0	0.003*
Nursing supervisor	45.67 ± 10.77	21.0-59.0	
Place of work:			
Private	38.73 ± 10.35	26.0-56.0	0.106
General	40.80 ± 11.77	17.0-69.0	
Years of experience:			
< 5	39.24 ± 9.22	23.0-59.0	
5 - < 10	38.91 ± 11.69	26.0-57.0	0.206
10 - < 15	39.16 ± 10.66	17.0-57.0	
≥ 15	42.05 ± 12.51	21.0-69.0	
Attending training courses:			
Yes	43.81 ± 11.34	17.0-69.0	0.000*
No	37.87 ± 10.63	23.0-59.0	

Kruskal Wallis test.

statistical significant difference (P<0.05)

Table (5): Job strain Correlation between performance score and coping strategies score of studied nursing staff at South Egypt cancer Institute (n=320)

		Coping score	Problem focused coping strategies	Emotion focused coping strategies	Performance score	Job strain
Coping score	r-value					
	P-value					
Problem focused coping strategies	r-value	0.952				
	P-value	0.000*				
Emotion focused coping strategies	r-value	0.927	0.773			
	P-value	0.000*	0.000*			
Performance score	r-value	0.410	0.406	0.362		
	P-value	0.000*	0.000*	0.000*		
Job strain	r-value	-0.159	-0.215	-0.058	-0.516	
	P-value	0.004*	0.000*	0.304	0.000*	

Spearman correlation

statistical significant difference (P<0.05)

Table (1): Illustrates that, more than one third of the studied nursing staff aged <30,35.6% years old and have years of experience (≥15) years 28.8% respectively, more than half of them have diploma of Technical institute in nursing (59.7%) and more than two thirds of them are married (78.1%). More than

half (65%) of them did not have any training programs about coping strategies.

Table (2): Illustrates that the total means of coping strategies are (80.64 ± 21.90), the highest mean score regarding to problem focused coping strategies in positive re-appraisal (12.09 ± 3.93). While the lowest

mean score as regard accepting responsibility (6.07 ± 2.08). Also, The table, illustrates that the highest mean score regarding to emotion focused coping strategies in escape-avoidance (12.08 ± 4.10). While the lowest mean score in the Distancing (8.64 ± 2.79). The total mean score of Performance score is (53.80 ± 9.54). The highest mean score regarding to Job strain in Decision latitude (65.34 ± 5.60) with total mean (28.17 ± 7.02) and the lowest mean score is in the Decision authority (31.64 ± 3.59)

Table (3): Shows that, there is a high statistical significant difference between problem focused coping strategies, gender, marital status, level of education, occupation, and attending training courses of the studied nursing staff (0.027^* , 0.037^* , 0.001^* , 0.006^* , 0.000^*). Also it is observed that no statistical significant differences between problem focused coping strategies and all other study variables.

Table (4): Revealed that, there is a high statistical significant difference between emotion focused coping strategies, level of education, occupation, and attending training courses of the studied nursing staff (0.001^* , 0.003^* , 0.000^*). Also it is observed that no statistical significant differences between emotion focused coping strategies and all other study variables.

Table (5): Demonstrates that there is a positive statistical correlation between coping strategies and nursing total performance score (0.000^*). However, there is a negative statistical correlation between job strain and coping strategies and Nurses performance (-0.004^* and 0.000^* respectively).

Discussion:

In the medical field, nurses operate in a demanding setting that frequently complicates stress (Mousazadeh et al., 2019). In addition to their ongoing workload demands, nurses experience environmental, occupational, and organizational stresses. High patient acuity, heavy caseloads, lengthy workdays, high performance standards, and a general lack of nurses are all factors that put strain on and place pressure on nurses (Sultana et al., 2020).

The present study conducted at south Egypt Cancer Institute to explore the effects of job strain coping strategies on Nurses Performance.

The results of the present study indicated that the total number of staff nurses (320) and more than half of them aged < 30 years old and have (≥ 15) years of experience.

▪ The current study was carried out at the South Egypt Cancer Institute to explore how nurses' performance is impacted by their use of coping strategies for strain at work.

▪ According to the study's findings, there are 320 staff nurses in total, and more than half of them are under 30 and have less than 15 years of experience.

This is in agreement with Buerhaus et al. (2017), who stated that the managers chose older age nurses to be competent to perform mostly tasks in the medical units successfully because the study establishing criteria required special technical skills in order to manage that group of cancer people

In terms of gender, married women with technical nursing institutes formed the majority of study nurses. Additionally, El Shinawy et al. (2020) revealed that the majority of nurses employed in crucial locations were females between the ages of 20 and 40 who attended technical nursing schools and had an average experience of more than 15 years.

According to the researcher's point of view, nurses who were the subject of the study had a fantastic opportunity to develop specialized skills and a broad knowledge base to provide patients with psychological, physical, and spiritual care as they aged. This enabled the researcher comprehend the nature of the task. Give them valuable practise dealing with the stresses of their regular jobs as well.

Additionally, Mohamed et al. (2022) said that the majority of nurses working in the oncology department were female, between the ages of 20 and 40, graduated from a technical nursing institution, and had an average tenure of more than 10 years in their work.

Moreover, Lundin & Godskesen, (2021) Noted that nurses with less experience may need the most extra training before they are prepared to take on a patient assignment. Similarly, nurses who specialise in a specific clinical area may need a certain amount of training to become competent in that field.

This finding is congruent with Dehghan-Nayeri et al. (2018), who claimed that most nurses employed in oncology departments typically had a bachelor's degree in the profession of nursing.

A higher percentage of the present studied nurses agreed & strongly agreed on the statement "I am free from conflicting demands that others make and I am not asked to do an excessive amount of work". On the other hand, most of them are disagreed & strongly disagreed on the statement "have a lot to say about what happens on my job and My job requires working very hard". This might be the common type of restraint occurred in the hospital.

This may be attributed to that, among nurses working in oncology frequently had severe workloads and an inadequate amount of control over their work, which were stresses connected to their line of work and leading in bad health and subpar work performance, and leading to lack of nursing care quality.

This result is in conformity with the findings of **Young et al. (2020)**, who reported that chemotherapy nursing is a field of practise focused on providing care to patients who have different forms of cancer in a variety of settings. In this respect, **Otero et al. (2018)** reported that oncology nurses have duties that include controlling illness symptoms while administering treatments, monitoring adverse drug responses, and offering emotional support for patients and their relatives.

The finding of **Challinor et al., (2020)** study concluded that a variety of variables, including emotional exhaustion, fatigue from compassion, and work lack of fulfilment, contribute to job strain amongst oncology nurses.

On the same line (**Bakker & de Vries, 2021**). Found that nurses reported a wide range of issues, including high levels of workplace stress, a lack of knowledge and experience, inadequate information, poor communication, and support from managers that may have an impact on their ability to perform at work. Therefore, it is crucial for employers to fully comprehend how a worker feels and what he or she wants, as well as the nature of their working environment and degree of fulfilment.

In, **Sharifi et al. (2021)** opinion, the enormous amount of work that nurses must do forces them to make difficult decisions about how to allocate their time and resources. They contend that this situation presents a chance to prolong extending concepts of nursing excessive workload and coping while also providing an environment for doing so.

Furthermore, **Parkinson-Zarb et al. (2022)** showed that nurses working in cancer hospitals had the greatest average stress scores presumably related to high job requirements and a heavy workload.

The majority of nurse participants in **Ornek & Esin, (2020)** study, which examined workplace stressors and coping among public-funded hospital nurses, reported a low degree of workplace stress based on their score on the whole occupational stressor subscales.

Regarding coping strategies: the current study found the highest mean score regarding to problem focused coping strategies in Positive re-appraisal. While the lowest mean score as regard Accepting responsibility . The highest mean score regarding to Emotion focused coping strategies in escape-avoidance. While the lowest mean score in the Distancing. The highest mean score regarding to job strain in decision latitude. and the lowest mean score in the Decision authority.

In this respect, (**Khali-Lee et al., (2020)** stated that Coping strategies used by cancer nurses can improve nurses' job performance .In a study performed in the Saudi hospital, he found that Soudia Arabia Ministry

of Health nurses displayed moderate levels of self-reported job performance in oncology healthcare environments, which is fairly comparable to that stated in earlier research in the Saudi hospital nursing sector of job .Additionally, **Wesolowska-Górniak et al., (2022)** discovered that When focused on demands, resources, and social interaction, among Soudia Arabia Ministry of Health public hospitals the level of nurses' was similarly moderate.

In the same line, **Al-Muallem & Al-Surimi (2019)** reported that theories of individualized resilience and burnout were unable to fully clarify the procedures that appeared to be most crucial in lowering nurses' exposure to stress .

Vinckx et al., (2018) confirmed that when cancer nurses see their faith as important to their nursing practise, they may use coping strategies more often and remain committed to their faith in the face of challenging circumstances. As a result, individuals might be able to adjust something about themselves so that if they encounter a similar circumstance again, they will know what to do.

Regarding the relation between coping strategies and their personal data; the current study revealed that, there is a high statistically significant difference between problem focused coping strategies, gender, marital status, level of education, occupation and attending training courses of the studied nursing staff. There is a high statistical significant difference between emotion focused coping strategies and level of education, occupation, and attending training courses of the studied nursing staff .

Minamizono et al., (2019) stated that elderly nurses with more professional expertise and better nursing educational backgrounds were more probable to suffer greater levels of job-related strain but also had higher levels of coping regarding their life experiences. In contrast, (**Ibrahim et al., 2021**) at Hong Kong showed that more than half of younger nurses with a mean age of 30 years experienced moderate levels of job-related strain, work overload/high job expectations, and a lack of social support.

Al-Ruzzieh & Ayaad (2021). Indicated that there was a negative link between age and nursing expertise and those strategies for coping, whereas a positive correlation between a nursing level educational attainment and obtaining social support, acceptance, and self-blame..

Based to research by **Kowalska & Szwamel (2022)**, nurses believed that high job demands—which are frequently made worse by staff shortages—lack of control over their work, a lack of social support, a lack of knowledge and abilities, a lack of adequate rewards, and a lack appreciation for their professional

competence were the biggest obstacles to improving their job performance .

Generally, **Alharbi et al., (2019)** concluded that, nurses' perception of stressful circumstances, job performance, and ability to use strategies to cope were all found to be influenced by factors like age, gender, educational background, years of experience, familial circumstances, and what kind of hospital.

The present study showed that, there is a high statistical significant difference between performance and age , level of education, occupation and place of work of the studied nursing staff.

Öksüz et al., (2019) study verified a substantial inverse relationship between job performance and the age and educational level of nurses from various units. The results of the current study showed a statistically significant positive relationships between methods of coping strategies and the overall nursing performance score. On the other hand, there was a negative statistical correlation between nurses' performance and overall workplace stress, coping strategies, and nurses workload.

From the researcher points of view although nurses agreed on the exact same four main workplace stressors (job demands/work overload, lack of job control and social support, and dealing with death/dying), there were disparities in the methods of coping used.

The findings of (**Amarat et al., 2019**) indicated that nurses who utilize beneficial coping strategies like looking for creative solutions and exercising self-control are better able to manage their emotions and execute their jobs more effectively., In contrast, Negative coping can affect a nurse's ability to accomplish their job (**Davey et al., 2021**). According to **Baljoon et al. (2018)**, nurses are driven to attain particular objectives as a coping techniques for the pressure of the workplace and will be happy if they do so through improved performance, even if these goals are those of the organization where they work .

Kupcewicz et al., (2020) study noted that various nurses may have very varied perspectives on stress and may decide to use different coping mechanisms as a result. For nurses, nursing practice, and organizations that employ nurses, coping mechanisms that reduce adverse reactions including stress, depression, turn over, and absenteeism are crucial (**de Wijn & van der Doef, 2022**) .

The findings of the current study showed that job strain had considerable effects on nurses' coping strategies, and that both job strain and coping strategies had an enormous effect on oncology nurses' ability to do their jobs effectively. It was shown that cancer nurses who used coping strategies for handling workplace stress frequently expressed greater levels of work performance, which indicate that coping

strategies may have attenuated the detrimental effects of job strain on oncology nurses' work performance.

These findings were congruent with **Yunita, & Saputra, (2019)**, who concluded that those employees' responses to stressful experiences at work, may have had an influence on their psychological well-being and, as a result, could have reduced the level of their job performance.

More over (**O'Connor et al., 2020**) who recognized that workplace strain was a risk factor for patient security and resulted in low productivity at work. **Fan et al.'s (2019)** revealed that employees with low or high levels of job strain outperformed More effective at working than those who experience mild strain.

Koopman et al. (2020), pitched that , certain workers are stimulated to accomplish when there is a lot of stress. Even in the ideal work setting, strain may need to be managed because it is well documented to have detrimental consequences on patients, nurses, and institutions.

The results also matched with **Wazqar, (2019)** who suggested that a higher levels of occupational stress among oncology nurses were substantially linked with higher use of coping techniques.

Consequently, **Amiri & Behnezhad (2020)**, the link between job strain and work performance has been documented with varying degrees of success. Nurses with intermediate levels of job strain outperformed better than those with high or low levels of job strain, according to research that found low job strain to be a factor in decrease work performance.

Conclusion:

Regarding to the study results, the following conclusions can be drawn:

- A positive statistical correlation between coping strategies and nursing total performance score.
- There is a negative statistical correlation between job strain, coping strategies and nurses performance.
- The highest percent of nursing staff apply coping strategies.
- There is a high statistical significant difference between problem focused coping strategies , gender, marital status, level of education, occupation, , and attending training courses of the studied nursing staff.
- There is a high statistical significant difference between emotion focused coping strategies , level of education, occupation, , and attending training courses of the studied nursing staff
- It is possible that coping strategies mediated the negative consequences of job strain on oncology nurses' work performance

Recommendations:

According to the results of the study the following recommendations are suggested:

1. Enhancing the working conditions for cancer nurses by creating policies and programmers that encourage healthy positive coping strategies with job strain.
2. Recreational programs where staff nurses may fulfil their wants and ambitions while cooperating to benefit the organization and the patient .
3. Enhance working conditions, and avoid restraint in hospitals, efforts must be made to fully address the issue of understaffing and offer enough coping strategies and essential resources within the work environment.
4. Both staff nurses and nurse managers want to recognize the undesirable effects of Strain, whether it is mandatory or voluntary. As well as, provide the coping strategies and educate staff on personal responsibility to not work when too restrain.
5. Regular evaluation of nursing staff performance, using a coping action for restrain as rewarding good performance and giving them feedback.
6. Further researchs should be conducted regarding educational program of coping strategies and its types and how to use it.

References:

- **Alharbi, F., Alahmadi, A., Alali, M., & Alsaedi, S. (2019):** Quality of nursing work life among hospital nurses in Saudi Arabia: A cross sectional study. *Journal of nursing management*, 27(8), 1722-1730.
- **Al-Muallem, N., & Al-Surimi, M. (2019):** Job satisfaction, work commitment and intention to leave among pharmacists: A cross-sectional study. *BMJ open*, 9(9), e024448.
- **Al-Ruzzieh, M., & Ayaad, O. (2021):** Work Stress, Coping Strategies, and Health-Related Quality of Life among Nurses at an International Specialized Cancer Center. *Asian Pacific Journal of Cancer Prevention: APJCP*, 22(9), 2995.
- **Altunsoy, F., & Aypay, A. (2021):** A post-traumatic growth model: psychological hardiness, happiness-increasing strategies, and problem-focused coping. *Current Psychology*, 1-13.
- **Amarat, M. Akbolat, M., Ünal, Ö. & Güneş Karakaya, B. (2019):** The mediating role of work alienation in the effect of workplace loneliness on nurses' performance. *Journal of nursing management*, 27(3), 553-559.
- **Amiri, S., & Behnezhad, S. (2020):** Is job strain a risk factor for musculoskeletal pain? A systematic review and meta-analysis of 21 longitudinal studies. *Public Health*, 181, 158-167
- **Bartzik, M. Aust, F. & Peifer, C. (2021):** Negative effects of the COVID-19 pandemic on nurses can be buffered by a sense of humor and appreciation. *BMC Nurs* 20, 257 (2021). <https://doi.org/10.1186/s12912-021-00770-5>
- **Bakker, B., & de Vries, D. (2021):** Job Demands–Resources theory and self-regulation: New explanations and remedies for job burnout. *Anxiety, Stress, & Coping*, 34(1), 1-21.
- **Baljoon, A. Banjar, E., & Banakhar, A. (2018):** Nurses' work motivation and the factors affecting It: A scoping review. *International Journal of Nursing & Clinical Practices*, 5(1), 277.
- **Beh, S., & Loo, H. (2021):** Job stress and coping mechanisms among nursing staff in public health services. *International Journal of Academic Research in Business and Social Sciences*, 2(7), 131-176. ISSN: 2222-6990
- **Buerhaus, I., Skinner, E. Auerbach, D. & Staiger, O. (2017):** Four challenges facing the nursing workforce in the United States. *Journal of Nursing Regulation*, 8(2), 40-46
- **Challinor, M., Alqudimat, R. Teixeira, O. & Oldenmenger, W. (2020):** Oncology nursing workforce: challenges, solutions, and future strategies. *The Lancet Oncology*, 21(12), e564-e574.
- **Davey, L., Lee, J. Robbins, T., Randeve, H. & Thake, D. (2021):** Heat stress and PPE during COVID-19: impact on healthcare workers' performance, safety and well-being in NHS settings. *Journal of Hospital Infection*, 108, 185-188.
- **De Wijn, N., & van der Doef, P. (2022):** A meta-analysis on the effectiveness of stress management interventions for nurses: Capturing 14 years of research. *International Journal of Stress Management*, 29(2), 113.
- **Dehghan-Nayeri, N. Shali, M., Navabi, N. & Ghaffari, F. (2018):** Perspectives of oncology unit nurse managers on missed nursing care: A Qualitative study. *Asia-Pacific journal of oncology nursing*, 5(3), 327-336.
- **Dwi, H. (2018):** Organizational commitment of hospital nurses: an empirical study on work-life balance and burnout management. *European Researcher. Series A*, (9-3), 235-248.
- **Egbekpalu, N., & Nwafor, E. (2021):** Relationship Between School Environment and Psychological Health Among Adolescents: The Moderating Role of Coping Strategy. *Practicum Psychologia*, 11(1).
- **El Shinawy, M., Daef, M., & El-Shafiey, G. (2020):** Designed Education Program for Nurses about Immediate and Long Term Nursing Management of Patient with Status Asthmaticus in

- El-Mobara Hospital at Assiut Governorate. Assiut Scientific Nursing Journal, 8(20), 142-155.
- **Fan, W., Moen, P., Kelly, L., Hammer, B., & Berkman, L. (2019):** Job strain, time strain, and well-being: A longitudinal, person-centered approach in two industries. *Journal of Vocational Behavior*, 110, 102-116.
 - **Ibrahim, R., Zalam, M., Foster, B., Afrizal, T., Johansyah, D., Saputra, J., & Ali, M. (2021):** Psychosocial work environment and teachers' psychological well-being: The moderating role of job control and social support. *International journal of environmental research and public health*, 18(14), 7308.
 - **Keshk, L., Qalawa, S., & Ibrahim, N. (2018):** Effectiveness of an educational program regarding nursing process on acquiring advanced skills among internship nursing students. *International Journal of Nursing*, 5(2), 32-44.
 - **Khai-Lee, O., Woan-Ching, C., & Bit-Lian, Y. (2020):** Perception of job satisfaction among operation room nurses in a tertiary hospital, Saudi Arabia. *The Malaysian Journal of Nursing (MJN)*, 12(1), 3-9.
 - **Koopman, J., Rosen, C., Gabriel, S., Puranik, H., Johnson, E., & Ferris, L. (2020):** Why and for whom does the pressure to help hurt others? Affective and cognitive mechanisms linking helping pressure to workplace deviance. *Personnel Psychology*, 73(2), 333-362.
 - **Kowalska, W., & Szwamel, K. (2022):** Stress management strategies and quality of life in undergraduate nursing and midwifery students in Poland: A pilot study. *Nursing Open*, 9(1), 824-838.
 - **Kupcewicz, E., Grochans, E., Kadučáková, H., Mikla, M., & Józwick, M. (2020):** Analysis of the relationship between stress intensity and coping strategy and the quality of life of nursing students in Poland, Spain and Slovakia. *International journal of environmental research and public health*, 17(12), 4536.
 - **Lundin, E., & Godskesen, E. (2021):** End-of-life care for people with advanced dementia and pain: a qualitative study in Swedish nursing homes. *BMC nursing*, 20(1), 1-11.
 - **Martínez-Zaragoza, F., Benavides-Gil, G., Rovira, T., Martín-del-Río, B., Edo, S., García-Sierra, R., & Fernández-Castro, J. (2020):** When and how do hospital nurses cope with daily stressors? A multilevel study. *Plos one*, 15(11), e0240725.
 - **Metlaine, A., Sauvet, F., Gomez-Merino, D., Boucher, T., Elbaz, M., Delafosse, Y., & Chennaoui, M. (2018):** Sleep and biological parameters in professional burnout: A psychophysiological characterization. *PLoS One*, 13(1), e0190607.
 - **Minamizono, S., Nomura, K., Inoue, Y., Hiraike, H., Tsuchiya, A., Okinaga, H., & Illing, J. (2019):** Gender division of labor, burnout, and intention to leave work among young female nurses in Japan: a cross-sectional study. *International Journal of Environmental Research and Public Health*, 16(12), 2201.
 - **Mohamed, A., Ahmed, H. M., & Abdellh, M. (2022):** Effect of Quality Orientation Educational Program on Nursing Staff loyalty. *Assiut Scientific Nursing Journal*, 10(28), 10-20.
 - **Mousazadeh, S., Yektatalab, S., Momennasab, M., & Parvizi, S. (2019):** Job satisfaction challenges of nurses in the intensive care unit: A qualitative study. *Risk Management and Healthcare Policy*, 12, 233
 - **O'Connor, B., Hall, L., & Johnson, J. (2020):** Job strain, burnout, wellbeing and patient safety in healthcare professionals. In *Connecting Healthcare Worker Well-Being, Patient Safety and Organisational Change* (pp. 11-23). Springer, Cham.
 - **Öksüz, E., Demiralp, M., Mersin, S., Tüzer, H., Aksu, M., & Sarıkoc, G. (2019):** Resilience in nurses in terms of perceived social support, job satisfaction and certain variables. *Journal of nursing management*, 27(2), 423-432.
 - **Ornek, K., & Esin, N. (2020):** Effects of a work-related stress model based mental health promotion program on job stress, stress reactions and coping profiles of women workers: a control groups study. *BMC Public Health*, 20(1), 1-14.
 - **Otero, J., Vera, R., González-Pérez, C., Ayala de la Peña, F., Peñuelas, A., & Quer, N. (2018):** Recommendations by the Spanish Society of Hospital Pharmacy, the Spanish Society of Oncology Nursing and the Spanish Society of Medical Oncology for the safe management of antineoplastic medication in cancer patients. *Farm Hosp*, 42(6), 261-8.
 - **Parkinson-Zarb, L., Duff, C., Wang, Y., & Mills, J. (2022):** Australian cancer nurses' experiences of burnout: Exploring the job demands and job resources of metropolitan cancer nurses during 2019–2020. *Health Care Management Review*, 10-1097.
 - **Piotrowski, A., Sygit-Kowalkowska, E., Boe, O., & Rawat, S. (2022):** Resilience, Occupational Stress, Job Satisfaction, and Intention to Leave the Organization among Nurses and Midwives during the COVID-19 Pandemic. *International Journal of Environmental Research and Public Health*, 19(11), 6826.
 - **Said, M., & El-Shafei, A. (2021):** Occupational stress, job satisfaction, and intent to leave: nurses

working on front lines during COVID-19 pandemic in Zagazig City, Egypt. *Environmental Science and Pollution Research*, 28(7), 8791-8801.

- **Santos KOB, Araújo TMde, Carvalho FM, (2017):** The job content questionnaire in various occupational contexts: applying a latent class model. *BMJ Open* 2017; 7:e013596. Doi: 10.1136/bmjopen-2016-013596.
- **Sharifi, M., Asadi-Pooya, A., & Mousavi-Roknabadi, S. (2021):** Burnout among healthcare providers of COVID-19; a systematic review of epidemiology and recommendations. *Archives of Academic Emergency Medicine*, 9(1).
- **Sultana, A., Sharma, R., Hossain, M., Bhattacharya, S., & Purohit, N. (2020):** Burnout among healthcare providers during COVID-19: Challenges and evidence-based interventions. *Indian J Med Ethics*, 5(4), 308-11.
- **Vinckx, A., Bossuyt, I., & de Casterlé, D. (2018):** Understanding the complexity of working under time pressure in oncology nursing: A grounded theory study. *International journal of nursing studies*, 87, 60-68.
- **Wazqar, Y. (2015):** Job Strain, Coping Strategies, and Work Performance among Oncology Nurses Working in Saudi Oncology Care Settings.
- **Wazqar, Y., Kerr, M., Regan, S., & Orchard, C. (2017):** Relationships between job strain, coping strategies and work performance among oncology nurses working in Saudi oncology care settings. *IOSR Journal of Nursing and Health Science (IOSR-JNHS)*, 6(5), 8-16.
- **Wazqar, Y. (2019):** Oncology nurses' perceptions of work stress and its sources in a university-teaching hospital: A qualitative study. *Nursing open*, 6(1), 100-108.
- **Wesołowska-Górniak, K., Nerek, A., Serafin, L., & Czarkowska-Pączek, B. (2022):** The Relationship between Sociodemographic, Professional, and Incentive Factors and Self-Reported Level of Physical Activity in the Nurse Population: A Cross-Sectional Study. *International Journal of Environmental Research and Public Health*, 19(12), 7221.
- **Young, I., Charalambous, A., Owen, I., Njodzeka, B., Oldenmenger, H., Alqudimat, M., & So, K. (2020):** Essential oncology nursing care along the cancer continuum. *The lancet oncology*, 21(12), e555-e563
- **Youssif, A., Eid, N. & Safan, S. (2017):** Staff Performance Appraisal System and its Relation to Their Job satisfaction and Empowerment: Developing Performance Appraisal Tool. *IOSR*

Journal of Nursing and Health Science. Vol. 6, No. 2, P.p (25-26). ISSN: 2320–1959.

- **Yunita, I., & Saputra, H. (2019):** Millennial generation in accepting mutations: Impact on work stress and employee performance. *International Journal of Social Sciences and Humanities*, 3(1), 102-114.