Relationship Between Role Strain and Quality of Work Life among Nurses at New General Mansoura Hospital

[1]Noha Ali Ibrahim shady, [2]El-Tahara El-sayed Abo-Habieb, [3]Awatef Hassan Kassem

1Nursing Specialist, at New General Mansoura Hospital

2Assistance Professor of Nursing Administration, Faculty of Nursing - Mansoura University.

3 Professor of Nursing Administration, Faculty of Nursing - Mansoura University,

*Corresponding Author: nohaali2129@gmail.com

ABSTRACT

Background: The profession of nursing is inherently multifaceted, requiring practitioners to navigate a complex array of responsibilities that can produce significant role strain that is noticeable among nurses leading to poor quality of nurses' work life. **Aim:** to assess the relationship between role strain and quality of work life at New General Mansoura Hospital. **Design:** The study used a descriptive correlational design. **Setting:** New General Mansoura Hospital. **Subject:** All available nurses (150) was utilized at the time of data collection were included in the study. **Tools:** two tools namely, Sherrod Role Strain Scale and Quality of work life Scale. **Results:** Nearly half (47.3%) of nurses strongly disagree/disagree to all role strain domains and three quarter (73.3%) of studied sample had moderate level of perception of all role strain. (49.4%) of nurses showed strongly agree/agree toward total quality of work life domains. Over three quarter (78.7%) of studied sample had moderate level of perception of quality of work life **Conclusion:** There was a negative relation between role strain and quality of work life except role conflict and role incongruity. **Recommendations:** Implement flexible scheduling options, such as part-time, establish open and transparent communication channels between nurses, the nursing manager, develop effective time management skills as prioritizing tasks, and delegating responsibilities,

Keywords: *Nurses, Quality of Work Life and Role Strain*

Introduction

Today's complexity in the health care system is the increase in acuity of patients, requiring nurses to assume more complex and demanding roles in the hospital. Role strain can result from the demands of these roles, which can lead to physiological and psychological stress this causes burnout and has detrimental impacts on nurse' physical and mental well-being, patient care, and the expense of hiring staff and medication then effect on quality of work life (Yang, Chen &Chen, 2021).

Role strain is characterized as an uncomfortable, embarrassing, or shame-inducing feeling that affects an individual's career objectives (Carte & Williams, 2017). When contradictory behavior, obligations, or expectations are connected to a particular social function, it causes stress for the individual (Abdollahi, Taheri, & Allen, 2021). It is also described as a circumstance that results in trouble or stress and is brought on by placing more obligations than anticipated on an individual executing given position (Bravo-Adasme & Cataldo, 2022).

Role conflict, role overload, role ambiguity, and role incongruity are the primary causes of role strain. Role conflict is condition arises when someone is subjected to demands that are incompatible with their position or line of work. Inadequate role definition results from unclear goals, primary responsibilities, expectations from colleagues, and the totality of professional duties (Fan, Chan,Murray, Houlihan & Gai,2023).

A nurse has role overload when they have too few resources to manage several roles at once. The excessive demands of time and mind can both lead to its evolution. (Pathardikar, Srivastava, Seth & Sahu, 2023). A job description that is unclear or poorly defined, as well as unclear organizational objectives, can lead to role ambiguity—a lack of clarity, certainty, and predictability regarding conduct in the workplace. In light of role incongruity theory, assessments of a leader are influenced by how stereotypes about gender and leadership responsibilities doesn't match (O'Connor, Smith, & Johnson, 2022) .

Role strain arises when there is a discrepancy between the expectations of the role and the actual tasks being performed in it (Blechman, Tóth-Király, Nadon, Fernet &Morin 2022). It also, happens when nursing professionals possess numerous jobs that overlap. This causes their performance in one capacity to interfere with their other position. Additionally, it occurs because of stress at work from things like long hours and taking care of patients who don't get well (Schot,Tummers & Noordegraaf, 2020).

When a nurse has too much role pressure, the effects may worsen.It can lead to poor decisionmaking, which puts patients at significant danger because a nurse's choice ultimately influences the course of therapy.Excessive role strain can also result in a loss of focus, which impairs performance because nurses are prone to providing insufficient care while under pressure. (Suter &Kowalski, 2021).

The care of patients is significantly impacted by excessive role strain.Poor patient care is the outcome of negative impacts brought on by role pressure or stress, particularly when nurses are not paying attention.Patients may not receive the appropriate attention, which could lead to poor treatment outcomes.In addition, the demanding nature of nursing employment influences their moral judgments, causing them to exhibit inappropriate behaviors (Labrague, 2021).

On the other hand, role strain represents a serious risk to nurses' quality of work life (QWL). Furthermore, it is well known that elements in the work environment and organization have a adverse outcome on nurses' quality of work life (Safaeian, et al.,2019).

Quality of work life is a complex idea that characterizes a nurse's views about many areas of their work, including the nature of their job, their discretionary duties, their work environment, their pay, their career prospects, their job stability, work-life balance, health and safety, joint decision-making, and fatigue (Vafaei et al ,2020). It is also, the chance to use one's skills and abilities and to take on obstacles and circumstances that call for autonomous thought and self-direction (Zahedy, Jafari, & Ramezan, 2021). In addition to, it is the degree to which a nurse is content with their personal and professional requirements as a result of contributing at work and accomplishing the objectives of the organization (Storman,Storman&Maciag,2022).

Also, QWL comprises social and emotional support, which involves showing concern, kindness, and acceptance; instrumental support, which is defined by providing material aid like cash, transportation, or task support; informational support, which involves offering resources and giving clear guidance; and assessment or validation, which offers input on how one's behavior, emotions, or position are formative (El Khamali et al., 2018).

It is a comprehensive strategy that takes into account the following: fundamental extrinsic job factors, such as pay, working hours and conditions; fundamental ideas about the nature of the work; authority used by nurses; nurses' involvement in decision-making; fair and equal approach at work; social support; making use of one's current skills; self-growth; a relevant scope of future at work; effect on extracurricular activities (Cascales, 2021).

Quality of work life is divided into eight major categories are as follows: social cohesion in the workplace; Workplace constitutionalism, the separation of work and life, healthy and safe working environments, instant access to human potential, prospects for stability and advancement, and social relevance of working life (Carvalho et al.,2023).

Maintaining and recruiting new nurses requires a good QWL. As a result, businesses are trying to figure out how to solve their problems with hiring and retaining staff by raising their QWL. Concentrating on enhancing QWL can boost nurses' contentment and satisfaction, which has numerous benefits for nurses, the organization, and patients (Ts, 2022). However, neglecting to control these elements—organizational identity, job satisfaction, intention to leave, and organizational dedication—can have a gravely detrimental impact on nurses' behavioral reactions (Eliyana, Permana & Sridadi, 2020).

Significance of the study:

One of the most demanding occupations in healthcare is nursing. The survival of the nursing profession depends on the ability to comprehend how role strain affects nurses. High job expectations, coping with mortality concerns, recalcitrant patients and physicians, strained relationships with peers, a sense of lack of control at work, and shift rotations have all been identified by nurses as causes of role strain. This can cause them to decide to leave (Haddad, Annamarajuv& Toney-Butler., 2020). The National Institute for Occupational Safety and Health lists nursing as one of the top 40 professions in the US with the highest occurrence of stress-related illnesses (O'Connor, Hall, & Johnson, 2020). For health care institutions to employ competent, committed, and motivated nurses, it is crucial to have a high quality of work

life (QWL). In healthcare settings, nurses comprise a substantial proportion of healthcare providers from several specialties. Therefore, in order to offer effective holistic care to those in need, they need have a higher QWL (Mohammadi et al., 2017). So, the purpose of this study is to evaluate the relationship between role strain and New General Mansoura Hospital employees' quality of work life.

Aim of the Study:

This study aims to assess the relationship between role strain and quality of work life at New General Mansoura Hospital.

Research Questions:

1. What is the level of role strain among nurses at New General Mansoura Hospital?

2. What is the level of quality of work life among nurses at New General Mansoura Hospital?

3. What is the relationship between role strain and quality of work life among nurses at New General Mansoura Hospital?

Method

Design:

The study design used was a descriptive correlational design.

Setting:

The research was carried out at the critical care units of the Ministry of Health-affiliated New General Mansoura Hospital. It works 7 days /week, 24 hours/ day It provides the Delta Region with a wide range of medical services. The New Mansoura General Hospital has (465) beds, including 115 beds in (9) critical units; (Emergency Department, Neonatal Intensive Care Unit, pediatric Intensive Care Unit, Intensive Care Unit, Cardiac Care Unit, Renal Care Unit, Burn Care Unit, Neuro Care Unit and Neuro surgery Care Unit).

Participants:

The research comprised all nurses who are employed in the a for mentioned settings willing to take part in the study during the period of data collecting (150 nurses)**.**

Tools of data collection:

Two tools of data collection were used in this study.

Tool (I): Sherrod Role Strain Scale:

This tool was developed by Sherrod, (1991) to assess the perception of role strain among nurses. It includes two parts as follow:

Part (1): Includes personal characteristics such as (age, gender, marital status, level of education, and experience years).

Part (2): Role strain scale consists of four subscales and includes 40-items to measure different dimensions of role strain. Each subscale including (10 items) namely, role conflict, role overload, role ambiguity and role incongruity. responses were measured by point Likert scale; (1) strongly agree, (2) agree, (3) undecided, (4) disagree and (5) strongly disagree.

According to the result grouped in tables strongly agree with agree and the same strongly disagree with disagree.

The scoring system of the tool based on statistical cutoff point and was categorized into three levels as the following:

- Low level of nursing staff perception of role strain domain (<50%)
- Moderate level of nursing staff perception of role strain domain (50%-75%)
- High level of nursing staff perception of role strain domain (>75%)

Tool (II): Quality of Work Life Scale

This tool was developed by the national institute for occupational safety and health NIOSH, (2002) aimed to evaluate the QWL at workplace. This tool includes 36-items categorized into six domains Each domain including (6 items) namely: (1) concerned with psychological work environment, (2) concerned with Job characteristics, (3) concerned with salaries and incentives, (4) concerned with teamwork, (5) concerned with supervisor leadership style, (6) concerned with participation in decision making. According to Likart scale, the responses for the items were on 5-point ranging from strongly agree to strongly disagree .

According to the result grouped in tables strongly agree with agree and the same strongly disagree with disagree.

The scoring system of the tool based on statistical cutoff point and was categorized into three levels as the following:

- Low level of nursing staff perception of quality of work life domain (<50%)
- Moderate level of nursing staff perception of quality of work life domain (50%-75%)
- High level of nursing staff perception of quality of work life domain (>75%) .

Reliability

Reliability test of the study tools; role strain and quality of work life questionnaire were tested by Cronbach's Alpha reliability was computed and found (0.75), (0.90) respectively.

Validity

Five experts reviewed the tools after they had been translated into Arabic and evaluated for content validity. Five specialists in the field of nursing administration from Mansoura University's Faculty of Nursing reviewed the tools for comprehensiveness, understanding, relevance, and ease of use. Based on their feedback, changes were made to the instruments.

Pilot study:

A pilot study was carried out on 10% of total study subject (167 staff nurses) to test the clarity, feasibility and applicability of the questions, identifying barriers and problems that may be encounter during collecting data and it helped the investigator to use and modify the data collection tools. Participants involved in the pilot study were excluded from the main study sample. The necessary modifications were done based on the result of pilot study.

Ethical considerations:

Ethical approval will be obtained from the Research Ethical Committee of Faculty of Nursing, Mansoura University at 8-9-2021. The hospital's responsible administrator granted formal approval to carry out the study. Following an explanation of the aim and design of the research to nurses who agreed to participate, informed written consent was obtained. All participants were informed that the study was voluntary and that they might stop taking part at any time. At every stage of the study, participants received guarantees regarding the privacy of the study sample and the confidentiality of the data that was collected.

Data Collection:

Data collection process need three months starting in January.2022 to finish off March 2022. During morning work hours, the researcher distributed questionnaires to each study participant to gather data., afternoon and night shifts. The researcher gave a justification of the study's objectives and the filling instrument. The questionnaire sheet has to be filled out in 15 to 20 minutes. Nurses filled the questionnaire sheets that the investigator had to make sure every question was addressed.

Data Analysis:

Using SPSS software (Statistical Package for the Social Sciences, version 26, SPSS Inc. Chicago, IL, USA), the collected data was organized, tabulated, and statistically analyzed. Normalcy was assumed, and that was acknowledged. Therefore, to characterize categorical data, frequency and percentage were utilized. A test of the Pearson correlation coefficient was used to determine whether two continuous variables were related. basic linear regression test was carried out to examine independent variables (role strain) of quality of work life (dependent variable). Statistically significant was considered as (p-value < 0.01 &0.05).

Results

Table (1) illustrates personal characteristics data of the studied nurses. This table showed that regarding age; nearly two third half (61.3 %) of the studied sample were aged 20-30 years old represents mean and standard deviation (29.03±4.34). The majority of them (84.0%) were female. In concerning marital status, more than three quarter (78.7 %) was married. Regarding education half of them (50.7%) were technical degree. Finally, years of experience, nearly half (46.7 %) of the studied sample were involved in one to five years with standard with mean standard deviation (6.95±4.53).

Table (2) Illustrated perception of role strain among the studied nurses. The table showed that **about** half of (47.3%) of nurses strongly disagree/disagree to all role strain domains. While (28.0%) strongly agree/agree of all role strain domains. Over half (54.0%) of nurses reported strongly disagree/disagree with role ambiguity domains. Third (33.3%) of them reported strongly agree/agree with role conflict.

Table (3) illustrated levels of nurse's perception toward role strain among nurses. According to this result nearly three quarter (73.3%) of studied sample had moderate level of perception of all role strain. While (80.7%) moderate level regarding role overload, no percentages (0.0) of them had high level of perception of role strain.

Table (4) illustrates perception of nurses toward total quality of work life. According to this result **nearly** half (49.4%) of nurses showed strongly agree/agree toward total quality of work life domains. Nearly two- third (61.3%) of nurses strongly agree/agree with job characteristics. While, over half (54.7%) of them showed strongly disagree/disagree with Salaries and incentives. One third (34.0%) of nurses reported undecided with participation in decision making.

Table (5) illustrates levels of nurses' perception toward quality of work life. According to this result **over** three quarter (78.7%) of studied sample had moderate level of perception of quality

of work life, while few percentages (4.0%) of them had high level of perception of quality of work life.

Table (6) shows relationship between role strain and quality of work life as perceived by the studied nurses. The result revealed that there is negative relation between role strain and quality of work life except role conflict and role incongruity.

Table (1): *Personal Characteristics of the Studied Nurses (n=150)*

Characteristics	No	%
Age years:		
▪ 20-30	92	61.3
▪ 31-40	56	37.3
▪ > 40	2	1.3
Mean ± SD	29.03±4.34	
Gender		
▪ Male	24	16.0
▪ Female	126	84.0
Marital status		
▪ Single	32	21.3
▪ Married	118	78.7
Level of education		
▪ Diploma degree	7	4.7
▪ Technical degree	76	50.7
▪ Bachelor degree	67	44.7
Experience years		
▪ 1-5	70	46.7
▪		
▪ 6-10	55	36.7
▪ >10	25	16.7
Mean ± SD	6.95±4.53	

Table (2): Perception of Role Strain Among the Studied Nurses (n=150)

Role strain	Levels of role strain domain	Score	No	%
A. Role conflict	Low (<50%)	10-24	37	24.7
	Moderate (50%-75%)	25-37	104	69.3
	High (>75%)	38-50	9	6.0
B. Role overload	Low (<50%)	10-24	23	15.3
	Moderate (50%-75%)	25-37	121	80.7
	High (>75%)	38-50	6	4.0
C. Role ambiguity	Low (<50%)	10-24	87	58.0
	Moderate (50%-75%)	25-37	63	42.0
	High (>75%)	38-50	0	0.0
D. Role incongruity	Low (<50%)	10-24	52	34.7
	Moderate (50%-75%)	25-37	98	65.3
	High (>75%)	38-50	0	0.0
Total role strain	Low (<50%)	40-99	40	26.7
	Moderate (50%-75%)	100-150	110	73.3
	High (>75%)	151-200	0	0.0

Table (3): Levels of Role Strain of the Studied Nurses (n=150)

Quality of work life domains	Strongly disagree/ Disagree		Undecided		Strongly agree/ Agree	
	No	%	No	%	No	%
A. Psychological work Environment	28	18.7	36	24.0	86	57.3
B. Job characteristics	24	16.0	34	22.7	92	61.3
C. Salaries and incentives	82	54.7	35	23.3	33	22.0
D. Team work	37	24.7	46	30.7	67	44.7
E. Supervisor leadership style	20	13.4	43	28.7	87	58.0
F. Participation in decision making	21	14.0	51	34.0	78	52.0
Total quality of work life	**35**	**23.3**	**41**	**27.3**	**74**	**49.4**

Table (5) Levels of Quality of Work life Among the Studied Nurses (n=150)

Levels of quality of work life	Score	No	%
▪ Low (<50%)	36-89	6	4.0
▪ Moderate (50%-75%)	90-135	118	78.7
▪ High (>75%)	136-180	26	17.3

Table (6): Relationship Between Role Strain and Quality of Work life as Perceived by the Studied Nurses (n=150)

Role strain domains	Total quality of work life	
	r	p
A. Role conflict	-0.15	0.06
B. Role overload	-0.20	0.02*
C. Role ambiguity	-0.27	0.001**
D. Role incongruity	-0.13	0.13
Total role strain	**-0.24**	**0.003****

Discussion

In the healthcare system, nurses are essential since they are frequently the first point of contact for patients. However, the demanding nature of their job frequently leads to role strain, which may have a major effect on how well they live at work. Role strain among nurses arises from various sources, including heavy workloads, emotional stress from patient care, and the need to balance administrative duties with clinical responsibilities. These factors can lead to physical and mental exhaustion, job dissatisfaction, and even burnout, which ultimately affect the quality of care provided to patients and quality of work life (Akkoç, Okun, & Türe, 2021). Therefore the present study aims toassess the relationship between role strain and quality of work life at New General Mansoura Hospital.

The results demonstrated that over one-third of nurses in study strongly agree about role conflict and role overload dimensions of role strain and least percent of agreements was related to role incongruity. These results may be due to Nursing professionals frequently face a variety of stressful work environments, such as a shortage of staff to adequately provide necessary services or overseeing the work of less experienced employees. As a result, they must continuously maintain a high level of effort to meet the demands of their job, which adds to their workload.

On consistent with the current results, Pramilaa (2020) found that majority of the participants concur that the main factor causing role strain is role conflict. Also, Herniawayati, Arsenal, Aminulloh, Ishak & Hakim (2023) reported that the main cause of role strain is role conflict that indicates that nurses who are faced with multiple responsibilities at once feel more stressed. The current study's findings conflicted with those published by Tosanloo, Adham, and Pourreza (2019), who noted that, from the perspective of clinical staff, organizational policies, job characteristics, subpar management, and an ineffective administrative staff communication system were the main causes of role strain.

The current findings indicated that most nurses in the study had a modest degree of total role stain. This result may be due to many causes as extended shifts, challenging or demanding patients, managing illness and death, hectic, high-stress

settings, prioritizing others, and insufficient clinical supervision.

On the agreement with Mo et al., (2020) who indicated that role stain among nurses was moderate. Predictive factors affecting stress among nurses. As well, Hendy et al., (2021) showed that the majority of the nurses in the study experienced moderate levels of overall nursing stress. Additionally, just over 25% of them had a severe level.

On contradictory with, Alyahya & Abo Gazalah, (2021) who assessed the relationship between Saudi Arabian primary healthcare center nurses' stress levels and role conflict and ambiguity found nurses had high level of total role strain. Moreover, Al Maqbali , Al Sinani & Al Lenjawi (2021) who studied the prevalence of strain, depression, anxiety and sleep disturbance among nurses and found about 50% of nurses reported having a high degree of role strain . Also, cross-sectional study was carried out in two teaching hospitals, namely the "Artesh" and "29 Bahman" hospitals, Tabriz, Iran, by Babapour, Gahassab-Mozaffari, & Fathnezhad-Kazemi (2022) and found that nurses experienced high degree of role strain .

Regarding perception of nurses toward total quality of work life. Nearly half of nurses showed strongly agree/agree toward total quality of work life domains with moderate level of perception of quality of work life. These findings may be due to, high workload, time pressure, excessive job demands that effect nurses QWL.

This finding was supported by Bragard , Agoritsas & Mazzocato (2015) who examined the QWL of emergency room doctors and nurses who worked in remote locations, finding that most of them had a moderate QWL. Also, Hwang (2022) who showed the majority of nurses reported having a mediocre quality of life at work. This could be because the nurses work in private teaching hospitals that provide tertiary care and have established infrastructure and staff welfare programs. As well as Alzoubi et al., (2024) who found that more than half of the nurses had moderate quality of work life. Supported by Al Mutair et al., (2022) study findings showed that nurses in Saudi Arabia perceived a moderate to high QWL .

On contrast to, Faraji et al. (2017) surveyed nurses working in a university hospital in Iran and reported that more than half of the nurses had a low level of perceived QWL .In addition to, Lolemo, Admasu & Mirkuzie (2017) reported that significant proportions of the nurses more than two third were not pleased with the quality of their work life. Adding to, Brooks (2019) findings indicated that where the nurses were dissatisfied with their quality work life.

Regarding relationship between role strain and quality of work life as perceived by the studied nurses. There was negative relation between role strain and quality of work life except role conflict and role incongruity. These findings may be due to role strain lead to a sense of frustration and helplessness, as nurses may feel overwhelmed by their workload and unsure of how to meet their expected duties. This can create a negative work environment, characterized by low morale, poor communication, and decreased collaboration among team members.

On the line with, Zaheer et al., (2015) A study conducted at major institutions in Delhi, India, revealed a considerable negative correlation between of role strain and QWL .As well, the research of Seman et al, (2022) discovered a negative link between work-life balance programs implemented by organizations and job stress Likely, Aruldoss, Kowalski & Parayitam (2021) reported that there was negative and noteworthy correlation between QWL on role strain. Also, Goda, Elhussiney & Ghanem (2023) who perceived role strain was associated with poorer QWL which increased conflict between work and personal lives.

Conclusion:

The results of the present study concluded that, greater than one third of nurses under study strongly agree about role conflict and role overload dimensions of role strain and least percent of agreements was related to role incongruity. Also, most of the study's nursing participants had a moderate overall role stain. Regarding perception of nurses toward total quality of work life. Nearly half of nurses showed strongly agree/agree toward total quality of work life domains whose opinion of the quality of their working life is moderate. Negative correlation existed between role strain and quality of work life except role conflict and role incongruity.

Prevention also showed a highly significant positive correlation.

Based on these findings, the following recommendation as includes:

For a Nursing Manager

- Implementing flexible scheduling options such as part-time or compressed work weeks, to accommodate personal and family commitments.

- Providing resources and support for stress management, such as counseling services or wellness programs.
- Establishing open and transparent communication channels between nurses, the nursing manager, and the broader healthcare team.
- Encouraging nurses to voice their concerns and suggestions, and actively listen to their feedback.

For Staff Nurses:

- Establishing a regular routine for taking care of oneself, like exercising, such as engaging in physical exercise, practicing relaxation techniques, or pursuing hobbies.
- Ensuring taking breaks and rest periods during your shifts to recharge and prevent burnout.
- Maintaining establishes limits and schedule time for personal interests to achieve a healthy work-life harmony.
- Developing effective time management skills, such as prioritizing tasks, delegating responsibilities, and minimizing interruptions.

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