

Effect of Nursing Activities on the Quality of Work-life Balance, Absenteeism, and Job Satisfaction among Nurses at Intensive Care Units

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Abstract

Background: Nursing activities refer to providing both direct and indirect care to patients in community settings, particularly intensive care units where care for critically ill, disabled and dying patients may burden the nurses' productivity and quality of patient care, reflecting on their personal lives and leading to dissatisfaction about job and absenteeism. Therefore, work-life balancing practices aim to reduce stress and absenteeism and improve nurses' performance. Hence, improving work life balance (WLB) is of outmost importance to nurses, as it is the basis of the quality of working life (QWL). **Aim:** To assess the effect of nursing activities on the quality of work-life balance, absenteeism, and job satisfaction at intensive care units. **Design:** A Descriptive-Correlational research design was used. **Setting:** Mansoura University Hospitals' eight intensive care units. **Subjects:** A convenient sample included all nurses who are working in the above-mentioned setting (100 nurses). **Tools:** Five tools used for data collection: Tool (I) Self-administered questionnaire which included two parts (1) Nurse's socio-demographic characteristics data and (2) Work-life Balance Scale, Tool (II) Modified quality work-life questionnaire, Tool (III) Nurses perception related to job satisfaction, Tool (IV) Nurses absenteeism rate from nurses' attendance records, and Tool (V) Patients Acuity aimed to maintain equitable nurse to patient care assignment. **Results:** The majority of the nurses in the research said they had a poor overall Work-life interfered with the personal life of about two-thirds of nurses (67%), which indicated a poor life balance. Also, the results showed that personal life overlapped with work for more than half (52%), while it was found that the work/personal life improvement was low for more than a third (41%) of the nurses. There was a moderate correlation between the nurses' overall quality of work life and the general work-life balance, with a statistically significant difference at $p < 0.01$. Furthermore, nurses' job satisfaction was associated with overall quality of work life and overall work-life balance. **Conclusion:** A positive correlation between nurses' work-life balance, quality of work-life, absenteeism, and job satisfaction in ICUs at Mansoura University Hospital. **Recommendations:** The work-life balance initiatives/strategies should be encompassed within national/international quality standards of healthcare system. Also further research is recommended to seek nurses' needs on such suggested standards.

Keywords: Absenteeism, Intensive Care Units, Job satisfaction, Nursing Activities, Quality of work-life balance.

Introduction:

The intensive care unit (ICU) environments, which overburden the nurses and expose them to multiple complexities, have an impact on their work-life balance, passion, and commitment to their clinical posts every day, as well as their job satisfaction. These challenges for critical care nurses (CCNs) stem from the complexity of patient care, work overloads, time constraints, working conditions, and administrative responsibilities.

High workloads in ICUs, understaffing, and working under pressure with acutely ill patients who have life-threatening diseases are additional factors that undoubtedly have an impact on staff nurses' commitment to their jobs.

High absenteeism and turnover rates also negatively impact nurses' productivity on the job, and ultimately impact on their ability to manage both professional and personal lives and their level of job satisfaction (Alameddine, et al., 2009).

The ICU nurses are most frequently affected by work life interfering with home life, which makes it harder for them to manage a balance between work and family obligations. The factors that have been shown to have the biggest effects on critical care nurses' ability to balance work and life include the length of time required to work, the inability to change one's working hours, time off or leave arrangements, the inability to access adequate childcare, frequent stressors and tension in ICUs that make working life more challenging and/or unpleasant (Burns, et al., 2014). Subsequently, Work-life regulations should enable nurses to balancing both personal and professional lives by allocating more time to leisure, family responsibilities, educational opportunities, rest, and social activities. Adopting such practices can lower stress from work-related activities and improve performance (Neumann, et al., 2018).

Approximately 10% of nurses' time was spent on tasks that might have been delegated or were not related to nursing but instead should be used to provide care to patients. Evidence to help nursing leaders to create strategies for changing nursing practice through a review of nursing tasks and activities and to encourage nurses to practice at the very top of their licenses for the highest quality care and best results (Yen, et al., 2018).

Critically care nurses have many emotional challenges that significantly affect their personal lives because they are caring for sick and dying patients. Grief, depression, suffering, and emotional tension are examples of these pressures. Additionally, the majority of nurses' working shifts that alternate disrupt their ability to spend time with their families. On the other side, it has been demonstrated that nurses who can juggle their obligations to their families, careers, and personal lives are happier at work and have a greater extent to stick with it and pursue a fulfilling and successful career. Therefore, balancing work and life is recognized as being among the best practices that, when used, can lessen stress from the workplace and improve performance, absenteeism, and job satisfaction (Sumanarathna, & Samarakoon, 2019).

The term "quality of life" refers to an individual's subjective assessment of their life, which may include an assessment of how stressful their jobs are pertaining to their free time (Muda, et al., 2021). Quality of life is described by the World Health Organization (WHO) as an individualized perspective of where they fit into the world in respect to their goals, aspirations, standards, and interests, additionally to the cultures and values they uphold.

It is a broad concept that is profoundly impacted by a person's physically and mentally, emotional state, beliefs, social relationships, and relationship to the fundamental components of their environment (Mohamad, et al., 2018).

Life balance is a comprehensive term that describes the success of leading a satisfying life. It entails giving life (happiness, relief, family expansion, and spirit) a fair priority over work (career and ambition). Others believe that leading a balanced life that includes laughter, play, work, and love and experiencing pleasure in all aspects of life clearly indicates living a happy and fruitful life (Muda, et al., 2021).

Balance between work and personal life, which operationally require help from the workplace, must be achieved through work-life balance. Three main factors are affecting the work-life balance: interference of work in personal life (WIPL), interference of personal life in work (PLIW), and augmentation of work and personal life (WPLE). When professional pressures and responsibilities make it impossible for nurses to meet their family obligations, work-life interference in personal life develops. When a nurse's ability to perform her job is hampered by family obligations and demands, there is interference with her employment. Work-life expectations and duties, as well as improving work/personal life, include a good impact on both work and personal life (Dousin, 2017).

Work-life imbalance may have an adverse effect on the sustainability of nurses' performance since it will cause them to divide their attention and time between work and personal responsibilities. For a nurse to achieve the best work-life balance and perform successfully, she needs to be really content with her career (Wijaya, & Suwandana, (2022).

In the healthcare sector, nurses play important functions and are the most dependable component of the multidisciplinary team. As a result, hospitals should focus on providing a favorable workplace for nurses in order to develop the skills necessary for raising the intended quality of healthcare for the present and the future (Ali, & Helal, 2018). Negative attitudes or behaviors on the part of nurses, a lack of dedication, a decision to quit one's job or leave the country, a rise in tardiness or absenteeism, a decline in productivity, or a decline in profits. Managers need to pay closer attention to each of these organizational behavior issues since they could have an impact on how nurses behave with organizations (Ali, & Helal, 2019).

Significance of the study:

On daily basis critical care nurse facing a lot of challenges one of these challenges is the harmonizing between her personnel life and work especially who have babies, and other demands such as family, home, as well as family members with special needs in addition, Those nurses working in a highly stressful work environment because caring of those highly acuity, life threatening as well as dying and end of life patients also impact on their psychological status with different feeling, as grief, sadness, depression and negative emotions that will negatively impact their life. Moreover, it will affect their attendance and lead to a high absenteeism rate that has a significant impact on ICU patients because it affects the continuity of care and quality of administered care, increases infection, length of stay, missed care, delays care process, increases mortality rate, and increases the workload on nurses, which may impact their satisfaction. Therefore, this study had done to assess the effect of nursing activities on the quality of work-life balance, absenteeism, and job satisfaction among nurses at intensive care units.

Operational Definition:

Nursing activities: The term refers to the profession of nursing as carried out by a licensed nurse, encompassing the tasks and obligations associated with the delivery of nursing care (Alameddine, et al., 2009).

Nursing Activities for Critical Care Nurses includes: (basic activities (monitoring and controls, laboratory tests, medication, hygiene procedures, drain care, mobilization and positioning, support and care for families and patients and administrative and managerial tasks), ventilator support, cardiovascular support, renal support, neurological support, metabolic support, and specific interventions(Miranda, et al., 2003).

Work-Life Balance:

The ability of an employee to maintains a harmonious balance between their job function, personal duty, and family life.

Job Satisfaction:

The concept of job satisfaction describes how people feel and behave toward their jobs (Armstrong, 2006).

Aim of the Study

The study aimed to assess the effect of nursing activities on the quality of work-life balance, absenteeism, and job satisfaction among nurses at intensive care units.

Research Questions:

The current study aimed to reply on the following questions:

1. What are the levels of nurses' work-life balance?
2. What are the levels of nurses' quality of work life?
3. What are the levels of nurses' job satisfaction?
4. What are the rates of nurses' absenteeism?
5. Is there is a correlation between nurse's activities, work-life balance, on their quality work life, absenteeism, and their job satisfaction?

Subjects and Method:

Design:

A descriptive correlation research design was used to fulfill the aim of this study.

Setting:

The research involved different staff nurses classifications (bachelor's, technical, and diploma) and was carried out in eight intensive care units at Mansoura University Hospitals. It

includes a surgical ICU that contains (16) beds, a Cardio-thoracic ICU, a Cardiac ICU, a Hepatology, a Pulmonary ICU, each unit from those contains (8) beds, a Neurology ICU consist of (4) beds, Intensive Care Unit of the new emergency hospital that contains (20) beds. All these units provide free cost health care to critically ill patients.

Subjects:

A convenient sample included all nurses who are working in the above-mentioned setting (100 nurses).

Exclusion Criteria

- Nurses with permanent behavior of absenteeism.
- Nurses working extra shifts in another private healthcare facility.

Tools of Data Collection:

Five tools were used in the present study

Tool I: A Structured Questionnaire: the consisted of two parts:

- **Part (1): Socio-demographic characteristics** included data about: gender, age, educational qualification, years of experience in the unit, marital status, having children, job position, and type of shift pattern.
- **Part (2): Work-Life Balance (WLB) Scale:** the scale developed, validated and translated into Arabic by **Agha, Azmi, & Khan, (2017)**. The scale included three independent variables to measure the overall of the work life balance which identified as:
 - Work Interference with Personal Life (WIPL)
 - Personal Life Interference with Work (PLIW)
 - Work Personal Life Enhancement (WPLE)

Scoring system:

There were 15 items constituted the scale. The nurses' responses were scored using five-point Likert scale (Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, Strongly Agree = 5). The scores given in a positive order for the dimensions of work-life interference in personal life (WIPL) and Work Personal Life Enhancement (WPLE), while in reverse order in personal life interference with work (PLIW) due to negative wording.

By adding up all categories, the work-life balance ratings for nurses were determined: High level was > 75%, Moderate level was 60-75% and Low level was < 60%. However, the items were written positively for the WPLE dimension, which focuses on improving one's work/personal life. A higher score means that job and personal lives have improved.

Work-life balance is thought to be more closely related to higher degrees of work/personal life enhancement. A high score indicates less interference, resulting in a high balance, for the dimensions of work-life interference with personal life (WIPL) and personal life interference with work (PLIW). • A low score denotes significant interference and poor fit balance. WPLE • A high score implies a high level of augmentation, while a low score indicates a low level of enhancement, respectively.

Tool (II): Modified Quality Work-Life Questionnaire, this tool was adopted by **Sirin & Sokmen (2015) and Brooks (2001)** to assess the quality work-life among CCN. 34 items divided into five dimensions titled: working environment (9 items); supervisory relationships (5 items); working conditions (10 items); job perception (7 items); support services (3 items), with Cronbach's alpha coefficient was 0.846.

Scoring system:

Responses from nurses were scored on a five-point Likert scale, with 1 being strongly disagreed and 5 being strongly agreed. The sum of all categories were used to compute the quality of work life scores: High quality work life was > 75%, Moderate quality work life was 60-75% and Low quality work life was < 60%

Tool (III): Job Satisfaction Questionnaire: it was adopted by **Norizan, (2012)** which was used to assess nurses' job satisfaction. It was composed of (36) components and was separated into the following (9) dimensions: Payment (4), Promotion (4), Supervision (4), Fringe benefits (4), Contingent reward (4), Operating procedure (4), Coworker relationship (4), Nature of the work (4), and Communication (4) are all four-part categories.

Scoring system:

The level of agreement and disagreement among participants regarding nurses' job satisfaction was determined by rating respondents' responses on a five-point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, and 5=Strongly Agree).

Job satisfaction levels are considered low level from (20% to 45%), moderate level from (46% to 75%), and high level from (76% to 100%).

Tool (IV): Nurses Absenteeism Rate:

This tool used as an evaluative tool to rate the nurses' absenteeism. The data was collected from nurses' attendance records through using the following formula = number of absent days over number of available work days in a given period of time x 100 (Kurcgant, et al., 2015).

Tool (V): Patient Acuity, this tool developed by Kidd, et al., (2014) aimed to maintain equitable nurse-to-patient assignment through calculating the patient acuity of complicated procedures, education, psychosocial/therapeutic treatments, the amount of oral drugs, complicated IV pharmaceuticals, and other medications were among the criteria categories.

Scoring system:

The tool has rating options from 1 to 4, with 1 denoting low acuity and 4 denoting high acuity. Ratings are based on the amount of nursing time required to accomplish a task, the amount of emotional and physical energy expended, the level of competence required, the frequency of tasks and interventions, and follow-up evaluations pertaining to a particular activity. An overall acuity score for each patient, ranging from 1 to 60, is calculated by adding the ratings for each of the five criteria categories. The next step is to group the total results into acuity category scores, which range from 1 to 4, with 4 being the highest acuity.

Tools Validity and Reliability:

Five professionals in nursing administration and critical care nursing with a combined experience of more than eleven years evaluated the research data collection tools for content validity. According to the panel's assessment, necessary improvement were made, including clarity, wording changes relating to the workplace, appropriateness of the material, item sequencing, and correctness of the items.

The reliability of the job satisfaction questionnaire was done for each dimension as follows; pay was (0.92) - promotion was (0.96)-supervision was (0.97) - fringe benefits were (0.88) - contingent rewards (0.89) - operating procedures were (0.93) - coworkers was (0.91) - nature of work was (0.82) and communication was (0.88).

Pilot Study

After completing the data collection tools, a pilot study was conducted on 10% of the sample (10 nurses). This was done to verify the opacity of the instrument, to confirm the transparency of the items, and to determine how long it would take to collect the data. The final form of the tools was developed using the results of the pilot study, which also demonstrated and tested the feasibility of the research methodology. Participants in the pilot study were included in the main study.

Administrative Design

Official approval to conduct this study was obtained from the Dean of the Faculty of Nursing at Mansoura University, the Director of Mansoura University Hospital, the Head of ICUs & Nursing Director, and Nurses in ICUs.

Ethical Considerations:

The Mansoura University Faculty of Nursing's Ethical Committee approved the research proposal, as well as the agreement of the hospital authority of personnel affairs for collecting and calculation of the days attended and days absent for each nurse during the period of data collection time. The researchers' ascertained that there were no risk to study participants during the application of the research, the study adhered to generally accepted clinical research ethics principles, an

oral consent was obtained from the participants, and study participants have the right to refuse participation in the study and/or withdraw from it at any time without providing a reason, confidentiality and anonymity was assured during the collection of data.

Data Collection Procedures:

Assessment and planning

phase:

- Following a review of the literature on the subject of the study, an Arabic translation of the data collection tool was carried out and reviewed.
- The data collection tools were reviewed by nine academic experts from different faculty of nursing in the following specialties: nursing administration (3) critical care nursing (3) and psychiatric and mental health nursing (3). Adaptations were made to the tools in response to experts input.
- A pilot investigation was carried out
- The Cronbach's alpha coefficient test was used to measure the tools' dependability.
- The researchers determined the priority and explain the purpose of the research and verified expresses consent from all the participants' nurses.

Implementation phase:

- During that phase the data was collected by the researchers, through meeting with every nurse separately during their working hours and the availability of nurses, distributes the questionnaire and the participants answer and filled out the questionnaire in front of the researcher; each participant took about 45-60 minutes to fulfill the questionnaires.
- The researchers attended the time of endorsement in each critical care unit and reviewed with the charge nurses the correct use of the patient acuity tool (tool V) to calculate the nurse /patient assignment, then at the next day track the attendance of the nurses from the head nurse.
- Data was collected within three months from October 2021 to December 2021.

Evaluation phase:

During that phase the researchers used tool II, tool III, IV and tool V) to evaluate the effect of nurses activities on (work-life balance, absenteeism and job satisfaction) for absenteeism, the researchers reviewed the attendance record from personnel affairs office records to determine the absenteeism rate for each nurse in the ICUs at Mansoura University Hospital. Days that not included are expected days off (Friday and Saturday), official and unofficial holidays, sick days, and maternity leave. Then they obtained from the hospital personnel affairs the days attended and days absent for each nurse for calculation over the same period of data collection time.

Statistical analysis:

SPSS version 24 of the Statistical Software Package for Social Science was used for data entry and statistical analysis. In order to compare demographic information with job satisfaction, absenteeism rate, range, the fisher exact test, and chi-square, data were presented using descriptive statistics in the form of frequencies, percentages, means, and standard deviation. The assessment of the relationships among quantitative variables was done using Pearson correlation coefficients. A P-value of ≤ 0.05 was used to determine statistical significance.

Limitation of the study:

Longer time taken to fill out the questionnaires due to presence of patients with high acuity and life-threatening conditions, as well as shortage of nurses .

Results:

Table (1) reveals that nearly half of the examined nurses (30%) were in the age group (>45) years old, with females' making up the majority of the nurses (80%) in the study, their years of experience in ICUs were (40%) of them >25 and regarding educational qualification (58%) were diploma nurses and 83% of them were married, 65% of them don't have baby sitter. Concerning job positions, 92% of them were bedside nurses, 8% were managers and more than half (54%) working morning shifts.

Table (2) displayed that work-life interfered with personal life by 67% of nurses and personal life interfered with work by (52%) of nurses, while, work/personal life enhancement revealed by (41%).

Table (3), shown the quality of work life dimensions was poor or moderate for more than forty percent of nurses (43% and 47%) related working environment. Low supervisory relationship reported by (47%), while (65%, 60%) of nurses revealed low quality for working condition and support services respectively. Conversely, (77%) demonstrated high level of job perceptions in the area of quality work life.

Table (4) Shows that nurses' work-life balance and quality work-life was moderately correlated in the dimension of support services, additionally, there was moderate correlation with statistically significance difference between nurses' overall quality of work-life and their total work-life balance at $p < 0.01$.

Meanwhile, job satisfaction was moderately correlated in the dimension of support services with high statistically significance difference at $p = 0.000$ related quality of work-life. Also, there were substantial positive link between nurses' overall job satisfaction with their entire quality of work-life and total nurses' work-life balance at $p = 0.05$.

Figure (1) illustrated the percentage distribution of nurses' levels of job satisfaction as more than half (57%) of nurses responses directed to job dissatisfaction, one quarter (25%) had moderate satisfaction and only 17% were satisfied.

Figure (2) reveals the distribution of absenteeism rate among the studied nurses working in ICUs at Mansoura University Hospital, as reported low rate for (63%), moderate rate (28%), and high rate (9%) respectively.

Table (5) Shows that the lowest mean job satisfaction scores for nurses were 5.85 ± 1.62 for payment and fringe benefits 5.97 ± 1.86 , indicating a low level of satisfaction. Despite the fact that nurses had the highest mean score for job satisfaction in terms of the nature of their work around (10.14 ± 1.96).

Table (6) There was no statistically significant relationship between total job satisfaction and staff nurses' absenteeism rate ($r = 0.083$, $p = 0.274$). The table showed overall weak correlations in all elements while there was a strong reverse correlation between absenteeism rate and job satisfaction in the part of promotion.

Table (7) Highest-acuity (High risk for life threatening) has strong positive correlation with nurses' absenteeism rate ($r = 0.969$, $p = 0.044$), whereas high-acuity, medium-acuity, and low-acuity have weak correlations with no statistically meaningful relationship with nurses' absenteeism rate ($r = 0.016$, $r = 0.104$, and $r = 0.075$ respectively).

Table (1): Percentage distributions of socio-demographic characteristics of the studied nurses n=(100).

Variable	N	%
Gender:		
Male	20	20.0
Female	80	80.0
Age:		
<25 years	20	20.0
25-<35 years	24	24.0
35-<45 years	26	26.0
>45	30	30.0
Years of experience in General ICU:		
≤10	15	15.0
10-15	25	25.0
15-25	20	20.0
>25	40	40.0
Educational Qualification:		
- Diploma nurse	58	58.0
- Technical nurse	22	22.0
- Bachelor nurse	20	20.0
Marital status		
- Married	83	83.0
- Single	17	17.0
Baby Sitter for kids care		
- Yes	35	35.0
- No	65	65.0
Job position		
- Manager	8	8.0
- Bedside nurse	92	92.0
Shift pattern		
- Morning	54	54%
- Afternoon	32	32%
- Night	14	14%

Table (2): Percentage distributions of the nurses concerning work-life balance (n=100)

Work-life balance dimensions	High	Moderate	Low
	%	%	%
Work-life interference with personal life	8.0	25.0	67.0
Personal life interference with work	15.0	33.0	52.0
Work/Personal life enhancement	22.0	37.0	41.0

Table (3): Percentage distributions of the nurses regarding levels of quality work life (n=100)

Quality work-life dimensions	High	Moderate	Low
	(%)	(%)	(%)
Working environment	10.0	43.0	47.0
Relation with supervisor	23.0	30.0	47.0
Working condition	0.0	35.0	65.0
Job perception	77.0	9.0	14.0
Support services	10.0	30.0	60.0

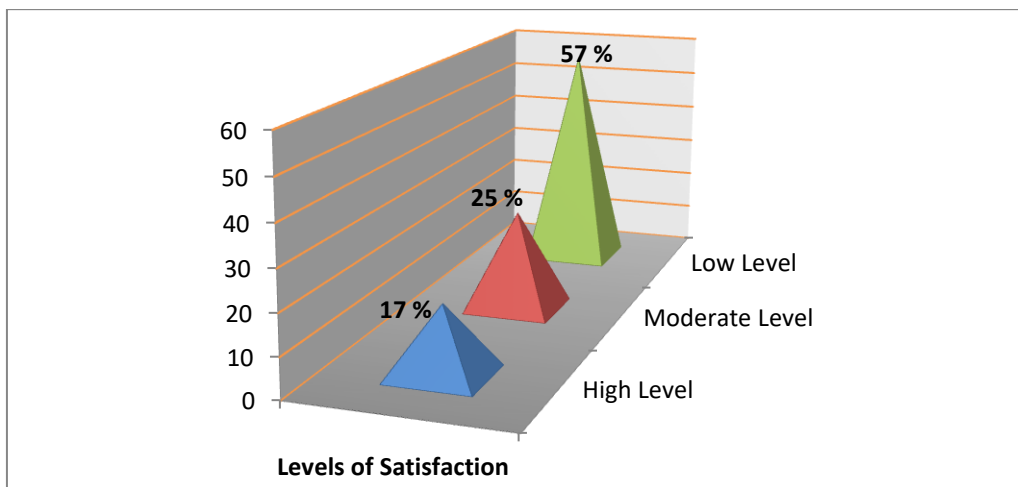
Table (4): Correlations of nurses' work-life balance; quality work life and their job satisfaction (n=100).

Nurses' Quality Work Life	Total Nurses' Work-life Balance		Nurses' Job Satisfaction
	r	P	
Working environment	r	.052	-.093
	P	.679	
Relation with supervisor	r	.000	.106
	P	.998	
Working condition	r	.183	.153
	P	.142	
Job perception	r	.046	.055
	P	.736	
Support services	r	.402*	.604**
	P	.003*	
Total Nurses' Quality Work Life	r	.468*	.037
	P	.001**	
Total Nurses' Work-life Balance	r		.352*
	P		

* Significant at 0.05 and 0.01 level

Table (5): Mean, standard deviations and mean percent of nurses' perception of job satisfaction dimensions (n=100).

Job Satisfaction Dimensions	Mean	Std. deviation	Mean%
Payment	5.85	± 1.62	28.38
Promotion	6.70	± 1.79	33.98
Supervision	9.20	± 1.95	46.07
Fringe benefits	5.97	± 1.86	11.86
Contingent reward	6.39	± 1.80	32.95
Operating procedure	8.28	± 1.46	42.93
Coworkers relationship	9.29	± 1.73	44.42
Nature of work	10.14	± 1.96	51.73
Communication	7.62	±2.04	36.04
Total Satisfaction	68.57	±7.78	37.63

**Figure (1):** Percentage distribution of nurses' levels of job satisfaction (n=100).

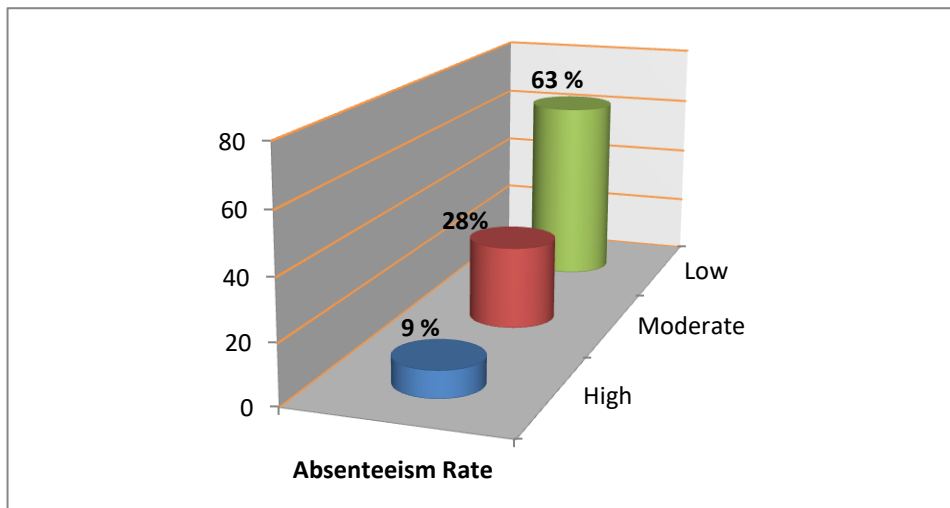


Figure (2): Distribution of absenteeism rate among the studied nurses working in ICUs at Mansoura University Hospital (n=100)

Table (6): Correlations between the studied nurses' job satisfaction dimensions and their absenteeism rate (n=100).

Job Satisfaction	Absenteeism Rate	
	R	P
Payment	0.215	0.043
Promotion	-0.981**	-0.042
Supervision	-0.013	0.817
Fringe benefits	0.049	0.392
Contingent reward	0.012	0.836
Operating procedure	0.064	0.265
Coworkers' relationship	-0.005	0.925
Nature of work	-0.106	0.047
Communication	0.104	0.069
Total	0.083	0.274

Table (7): Correlations between ICUs patient's acuity and nurses' absenteeism at the selected ICU

ICU Patients Acuity	Nurses' Absenteeism Rate	
	R	P
Highest-acuity (High risk critical patient)	0.969 **	0.044
High-acuity (complex critical ill patient)	0.016	0.718
Medium-acuity (moderate risk)	0.104	0.069
Low-acuity (stable patient)	0.075	0.279

Discussion:

With the presence of numerous nursing activities and practices provided by nursing teams to care for patients, especially patients in need of urgent and critical care, as well as patients with serious and fatal diseases who need speed and skills to save their lives, but on the other hand, these emergency and urgent practices affect those nurses working in the intensive care units in a way and how to achieve a balance between the work life in such difficult and repetitive circumstances on a daily and permanent basis and between personal and family life and the percentage of their job satisfaction, as well as the percentage of absence at work, which negatively affects the care of these patients. Therefore, this study aimed to assess the effect of nursing activities on work-life balance, job satisfaction, and absenteeism for nurses working in intensive care units at Mansoura University Hospitals.

The socio-demographic data showed that the majority of the study's nurses were female. Nearly one third of the examined nurses were in the age group (>45) years old, while more than one third had 25 years of ICU experience, more than half had diploma nursing degrees, also, the majority were married, and more than half didn't have nannies for kids care. In terms of their jobs position, the majority of them were bedside nurses, and more than half of them worked morning shifts. The preference of nurses' to work continual morning shifts was due to their desire to spend more time with their children and family.

Moreover, the length of experience in one workplace may indicate to several reasons, including the tendency of nurses, especially diploma nurses, to settle in government workplaces more than bachelor nurses, as well as the length of experience weighs on skills and quality of their nursing practice.

In a similar study done by **Abdallah, & Mostafa, (2021)** at ICU of Tanta University Hospital, the majorities of nurses had from 30 to 40 years old, and were married. The education level, more than half of the nurses had bachelor degree of nursing and had from 10 to 20 years of experience.

In the light of the work-life balance, the present study's findings displayed that the majority of nurses declared that their work-life interference with aspects of their personal lives was at low level, also, more than half of them stated that their personal lives interfered with their work. However, more than one-third and more than two-fifths of nurses perceived moderate to poor level of the work/personal life enhancement which, means that there was poor work-life balance. This finding was congruent with **Abdallah, & Mostafa, (2021)** as low level of work-life balance is thought to exist by more than half of ICU nurses. In accordance to the same findings, some previous studies as **Aroosiya (2018); Bhola & Nigade (2016) and Rife & Hall (2015)** clarified that most respondents were unable to strike a balance between their work and family obligations, meaningful of poor work-life balance.

On contrary of the present research, **Kumar & Chaturvedi (2018)**, on the other hand, showed that millennial had a good level of work-life balance and **Smeltzer, et al., (2014)**, explicated healthy work-life balance by the majority of sample. While **Al Momani, (2017)** found modest level of work-life balance by the sample of the study. **In addition, Poulouse, & Sudarsan, (2017)** illustrated moderate mean scores of WPLS and PLWS across the work and family domains.

Regarding the levels of quality work life, the current study explained the working environment for more than forty percent of nurses was poor to moderate quality in terms of work-life dimensions. On the other hand, the majority showed high degree of quality work life. This finding is supported by **Faraji, et al. (2017)**, refined that the quality of nurses' work-life appeared between low and moderate levels. Moreover, **Akter, et al., (2018)**, and **Hemanathan, Sreelekha, & Golda, (2017)**, also declared that the QWL was at moderate level as sorted out by the study sample.

Regarding work relations with supervisors, more than forty percent of nurses reported poor supervisory relationships, which contradicted by **El- Demerdash & Mostafa (2018)**, who claimed that nurses had a modest level of relationship.

In the same findings, two-thirds of the present study's nurses claimed that their working conditions and support services were at low quality, which indicates to undesirable working conditions and that the workplace does not satisfy an individual's fundamental needs. This current study finding was inconsistent with the study of **Nagammal, et al., (2017)**, which found that over 70 percent of nurses perceived favorable and supported working conditions.

This may be explained by the fact that nurses need more inspiring and compassionate environment, and their contributions need to be adequately recognized. This explanation is corroborated by the results of **Kelbiso, Belay, & Woldie, (2017)**, which indicated that nurses who felt their workplaces as unfavorable, had reported poor-quality of work lives. However, the current study's findings were in direct opposition to the result of **Nagammal, et al., (2017)**, and **Prasetio, Yuniarsih, & Ahman, (2017)**, as interpreted that nurses' work lives are generally of high quality.

Nurses' work-life balance in regard to quality of work life and their job satisfaction, the results of the current study showed a correlation between the quality of nurses' working lives and their job satisfaction as there was a moderate positive correlation between nurses' overall job satisfaction and its dimensions and the quality of the work-life support services they receive. The finding of the current study was in line with both **Morsy & Sabra, (2015)**, who found a strong positive statistically significant correlation between job satisfaction and work life quality. While conversely **Bayoumy & Abdrbo, (2016)** found that all the quality of working life subscales were statistically significant and positively correlated with job career satisfaction.

According to the study's findings, work-life balance and job satisfaction was correlated. It was noticed that nurses' overall job satisfaction and their work-life balance had a statistically significant correlation. According to **Prasetio, Yuniarsih, & Ahman, (2017)**, there are substantial relationships between WIL, LIW, and WLE and job satisfaction. Increased work-life balance has a favorable impact on men kind

and life happiness as mentioned by **Noda & Ito (2016)**.

Improving work-life balance will lead to greater life satisfaction. This conclusion is consistent with **Yusuf & Khan, (2018)**, who found that life satisfaction and the majority of the work-life balance's dimensions (i.e. WPLI, PLIW, and WPE) were positively and significantly correlated. In the same line, the findings of a study conducted by **Taşdelen-Karçkay & Bakalm, (2017)**, had revealed a strong and positive correlation between life satisfaction and work-life balance.

The study's finding showed a statistically significant positive correlation between nurses' overall work-life balance and their perceptions of their jobs, support services, and overall quality of life. This result implies that improving work-life balance will also improve quality of life, which is consistent with the findings of **Bhola & Nigade, (2016)** who displayed that a high level of organizational QWL is positively correlated with women's WLB in the service sector, which in turn improves quality of life and vice versa.

Concerning level of job satisfaction, it was found that the lowest mean job satisfaction scores of nurses regarding payment and fringe benefits indicating a low level of satisfaction. Despite the fact that nurses had the highest mean score for job satisfaction in terms of the nature of their work around. This finding was supported by **Ibrahim, et al., (2016)** that nurses' income affects their job satisfaction.

The finding of present study also revealed that more than half of the study nurses were dissatisfied with their jobs, which agreed with the result of **Kaddourah, Abu-Shaheen, & Al-Tannir, (2018)** and **Ghazwin, et al., (2016)**, who found that a sizable portion of Iranian-employed nurses reported being either unsatisfied or severely dissatisfied with their work. Also, **Alshmemri, Shahwan-Akl, & Maude, (2016)** declared that nurses employed by governmental hospitals at Saudi Arabia were dissatisfied with their positions.

Meanwhile at the opposite side, the results of the current study contradict those of **Uchmanowicz, et al., (2019)** as near half of the participants experienced a high sense of life satisfaction, **Bikmoradi, et al., (2018)**, and **Samiei, et al., (2016)**, stated that clinical nurse

managers had a moderate level of job satisfaction. Also, moderate to high level of job satisfaction were demonstrated by **Masum, et al., (2016)** and **Wanjohi & Maringi (2013)**, in other research studies.

The low level of satisfaction among the studied nurses may be due to several factors, including, but not limited to, low salaries compared to heavy workload, lack of recognition, disregard of the management of some hospitals for the needs or desires of nurses in providing appropriate working conditions, trivial opportunities for promotion, lack of resources, and exposure to occupational risks such as infection, pain, stress, and diseases or death, as happened to many nurses during the outbreak of the Corona virus.

In regard to the assessment of nurses' absenteeism, there was a reverse correlation between staff nurses' job satisfaction and absence rate: which supported by **Trinkoff, et al., (2010)**, as mentioned that when satisfaction is high, absenteeism is low, and when satisfaction is low, absenteeism is high.

The current study found a weak negative relationship between nurses' satisfaction with payment and no statistical relationship between nurses' total job satisfaction and their absenteeism rate. This study was supported by **Goldberg & Waldmn, (2000)** who studied "Modeling employee absenteeism: Testing alternative measures and mediated effects based on job satisfaction".

According to the findings of the current study, it was observed that more than half of the studied nurses have a low level of absenteeism. This could be because of the legislation of labor low for the work force, in this respect, the Ministry of Health has made links between incentives and the rate of attendance, as the nurses shall be encouraged to maintain regular attendance. Furthermore, low absenteeism may be due to nurses covering their absences with annual and casual leaves, and the majority of the study sample was females who take about 4 months as delivery vacation with salary and also take about 6 years child care vacation, and their hospitals were governmental so they do not fear termination.

This study contradicted another study done by **Kovane, (2015)** refined high rate of absenteeism among nurses. Furthermore, **Radwan, Abd El- Wahab & El-Shaer, (2016)** discovered that nurses at Giza Hospitals were away from work frequently. Furthermore, **Ahmed, El-Shaer, & Fekry, (2015)** had reported high rate of absenteeism among nurses at Mansoura University Hospital.

Concerning patient's acuity and nurses' absenteeism rate at the selected ICUs, the study finding revealed very strong positive correlation between the presences of highest-acuity for patients who's at high risk for life-threatening conditions with elevation of nurses' absenteeism rate. As most hospitals suffer from staffing shortage and inappropriate nurse-patient ratio, that may be attributed to difficult patient assignments and unequal patient-nurse ratios. In addition to patient complexity and the nature of ICU environment, deterioration of patient condition and unexpected emergency admission that can burden the staff and exceed their capacity for work.

The American Nurses Association (ANA, 2014) has been striving to put legislation into effect that balances staffing to deliver safe care to hospitalized patients. In order to increase patient outcomes and satisfaction, decrease errors, boost staff morale and retention, and deliver healthcare more affordably, it is important to have the right amount of staffing for the job.

The study results revealed that there was a relationship between the highest-patient acuity and nurses' absenteeism. From the researcher's point of view, it was observed that when the highest-patients' acuity increased this may cause tiredness and work overload and lead to an increase in nurses' absenteeism which establishes the level of risk and effort that should be put forward at work, which has an impact on the work-life balance. intensive care units, the place that is characterized by a high level of patient acuity and complex pathologies so the absenteeism rate has a great impact on ICU patients because it effects on continuity of care and quality of administered care, increases infection, increases the length of stay, increases missed care, delay care process, increase mortality rate, increase the workload on nurses that may effect on their satisfaction. A manager who

must deal with the effects of absenteeism may benefit greatly from understanding the relationship between the absence rate and nurses' job satisfaction.

Conclusion:

According to the findings of the current study, there was a correlation between nurses' work-life balance, quality of work life, absenteeism, and job satisfaction in ICUs at Mansoura University Hospital at a p-value $p < 0.001$.

Recommendations:

The following suggestions are made on the light of the findings of research:

- For administration: ICU staff family relations must be taken into account by nursing administration. Nurses should have access to childcare facilities, flexible work hours, and plenty of vacation time. ICU nurses will find it simpler to juggle work and family obligations thanks to these advantages.
- The administrative power granted to nurses is responsible of raising their standard of living at work. Maintaining an equitable distribution of the nursing workforce is necessary to ensure adequate nursing services for patients, families, and the community. Patients should be assigned fairly, according to each patient's acuity score, and there should be a reasonable nurse-to-patient ratio established.
- Nurse administrators should conduct a periodic evaluation of the absenteeism rate and relate the causes and develop a corrective action plan to ensure proper management.
- Allowing ICU nurses the possibility to make decisions that affect their work would boost their sense of control at work.

For further research:

- To generalize the results, the current study should be replicated in all departments to determine their absenteeism rate in a large sample.
- Replicate this study to investigate its impact on patient's clinical outcomes.

- Development of novel strategies to improve workplace balance, job satisfaction, and nurses' quality of life.

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