Relationship of Quality of Life, Resilience, and Associated Factors Among Emergency Nurses During Covid-19 in Saudi Arabia

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Abstract

Background: The COVID-19 pandemic made a lot of effects in the people life during 2020, plus of this it corresponding to a lot of bad consequences results in increasing of death. While in the medical field nursing had effected by this pandemic in their quality of life and all of activities.

Propose: This study was conducted at King Khalid Hospital (KKH) in Saudi Arabia.to determine the relationship between quality of life, resilience, and associated factors among ED nurses during COVID-19 pandemic.

Methods: The study sample consisted of (77) nurses working in KKH who are available during the period of the study. The data was collected by using a questionnaire design for the study of nursing demographic data and a cross-sectional, descriptive survey design for nurse regarding to tool included QOL, resilience scales tool included QOL, resilience scales.Data were analyzed using Statistical Packages for Social Sciences (SPSS) (Version 20) presented in tables and figures.

Results: The study showed thatseventy-seven working nurses completed survey with a score of 98.7%. The majority (n = 77, 98.7%) were between 24 and 54 years old, and the mean years of work experience was 13 (SD= 0.817). There was only Few of the male nurses 7.7 %(n = 6) respondents. The correlation of the environment (r=0.43, P<0.035) (M=27.1) and Psychological factors was (0510, P<0.003) (M=20.3) was high. While when comparing the scores of qualities of life of ED nurses in the other factors like social (M= 10.6) were low among ED nurses. We found a poor score of QOL by 38% and poor resilience by 11.3%.

Conclusion: on light of the study results it can be concluded that resilience was the strongest factor and its related to quality of life among daily activities

recommendation: The study recommended that emphasis should be placed on comparing with pre-pandemic data or tracking developments during the pandemic.

Keywords: COVID-19; ED nurses; quality of life; resilience; Saudi Arabia.

1. Introduction

The Corona Virus in December- 2019(COVID-19) pandemic made a lot of effects in the people life during 2020, plus of this it corresponding to a lot of bad consequences results in increasing of death .while in the medical field nursing had effected by this pandemic in their quality of life

and all of activities [1]. A lot of psychological situations appear among health care stuff such as worry of infection, tension and pressure disorders[2]. Resilience has a big role in improving the healthcare systems. Resilience is defined as a person's ability to generate many new and unconventional ideas, and it expresses the fluidity of his thoughts and his ability to change them to suit and adapt to different and emergency situations he faces. It also means the extent to which individuals absorb and accept new ideas according to changing circumstances and multiple perspectives [3]. The quality of life (QOL) and the Resilience are very important for the individual to continue to work, so that the individual has the best production, and is successful in their work, and for successful professional adaptation more than one direction, the individual must adapt first with himself and then adapt to the work environment and conditions and adapt with colleagues and employers[4]. Individuals as they provide strategies for coping and awareness of variables such as sequins and a diversion of positive feeling and support for psychological hardness to strengthen resilience [5]. According to [5] "rigidity, also called 'temporary resilience' is a personality pattern associated with resilience, good health, and performance under stressful conditions", which can predict individuals' adaptation to stressful and traumatic events. During the eighties, the scientist kolbas developed the

concept of flexibility to create a method that faces pressures, stress and hardship at work and protects from various emerging symptoms. The main parts of this method consist of three methods: flexibility, challenges, and boldness that produce the ability to use resources, improve recovery ability and enhance positive performance [6]. [7]show that Boldness is the attitudes that constitute courage and motivation to deal with stressful events. Nurses have faced a lot of pressures such as teaching, research, and also community management. Therefore, toughness represents a personal trait that predicts health and performance [7]. Studies have confirmed that this will affect the quality of life and consequently the ability of nurses to be flexible and lead to leaving the environment. Academic and work, where nursing is the main engine and the beating heart of any health institution, and accordingly [8].

Personal and professional changes alter the quality of life and consequently affect resilience and exposure to anxiety and turmoil, as in Taiwan, where the study indicated that nurses have the ability to adapt and balance with the demands of work and life and identify strategies to maintain a healthy quality of life where nurses faced the emerging challenges of demand for education, support students their educational needs during the unprecedented COVID-19 pandemic and the requirements for social distancing[1].Quality of life is a measure of life

experiences that are determined by happiness and satisfaction. Individuals can also be supported and encouraged, and standards developed for a sense of awareness, health promotion, well-being and the required flexibility [6]. [9] found that the overall level of fine of life among nursing become slight (mean = one hundred sixty five; SD = 26.eight). Bivariate analysis showed that non-Saudi nationality, older age, more paintings experience, marital popularity, full-time employment, rotating shift and specialized devices had been massive elements contributing to higher QOL ratings ($p < .05$). A total of 290 healthcare professionals responded to the survey. The mean overall quality of life score was 3.37 ± 0.97, general health = 3.66 ± 0.88, domains, i.e. physical = 11.67 ± 2.16, psychological = 13.08 ± 2.14, social = 13.22 ± 3.31, and environment = 12.38 ± 2.59. Respondents over 40 years of age, male gender, married status, being a physician, having work experience >15 years and no overtime had higher imply ratings in numerous areas of pleasant of life (QOL), and standard QOL, and widespread health ($p <$ zero.05) [10]. [11] found extra than a third of nurses members (n = 127; 36.6%) revel in burnout. guys had better best-of-lifestyles scores than women within the areas of bodily health ($p = 0.001$; d < 0.five), mental ($p = 0.001$; d < zero.five) and social relationships ($p =$ zero.048; d < zero.five). girls had been more fatigued than guys ($p = 0.001$; d < 0.five). Flexibility, online revel

in, and an amazing aptitude for online gaining knowledge of have been related to each area of QOL. Remarkably, 21% to 54% of nursing students' QOL ratings indicated terrible high-quality of existence. Also Elasticity changed into the strongest predictor of each domain of QOL. The nursing nurses who have suggested improved great of existence are those who've been capable of adapt to the changes and demanding situations imposed during the COVID-19 pandemic. Resilience had a fantastic and direct effect at the university of Nursing and QOL students. Having a workspace at domestic and being nicely prepared for on-line studying had advantageous indirect outcomes on great of life, through flexibility [12]. Thus, this study amied to determine the relationship between quality of life, resilience, and associated factors among ED nurses during COVID-19 pandemic.

2. Metods

2.1. Methods and dezin

A This examine used a cross-sectional, descriptive survey design had conducted on the King Khalid health facility in Hail metropolis, Saudi Arabia. The have a look at will cover a set of nurses who paintings inside the King khaled sanatorium in Hail city. Questions for the look at organization which might be consistent with questions regarding dating of best of existence, Resilience, and related elements among Ed nurses for the duration of Covid-19 at KKH hospital might be obtained. fitness care vendors who do no longer cope with Covid-19 patients could be excluded, in addition to fitness care providers who do not want to participate in the study, and who've less than three hundred and sixty five days of sensible revel in. The take a look at will be applied within a

duration of two months. As for the sample size, The range of fitness care companies nurses who deal without delay with Covid-19 sufferers in the King Khaled sanatorium in Hail town can be approximately (N=77).

The reliability of the WHOQOL-BREF become assessed by means of standardized Cronbach's alpha coefficient, and the validity become measured by convergent validity, essential factor evaluation and confirmatory factor evaluation[13]. The reliability of the scale by way of Cronbach's alpha; the coefficient for the CD-RISC-10 is zero.82 with a 95% confidence interval [0.82; 0.86], which may be very close to the authentic model (.eighty five)[14]. The reaction alternatives have been rated on a five-factor Likert scale; rankings had been transferred to a hundred-factor scale, with a higher rating indicating higher QOL. The CD-RISC-10 is a self-suggested shorter model of the authentic CD-RISC-25 questionnaire measuring one's belief of resilience. The response options have been rated on a 5-factor Likert scale, on a scale of 0 (no longer actual in any respect) to four (actual nearly all the time), with a higher score indicating higher resilience.

2.2 Instrument of This Study

This examine used a cross-sectional, descriptive survey design. The take a look at was performed all through [25 MARCH to 20 MAY 2022] at an

Emergency Department (ED) nursing at a KKH health facility/HAIL Nurses self-administered the questionnaires, along with a

a. WHO great of existence-BREF (WHOQOL-BREF) (Casamali,*et al,*.2019).

b. Connor-Davidson Resilience Scale 10 (CD-RISC-10) (Wollny,*et al,*.2021).

c. 12 work-associated and demographics questions and Cronbach's scores for every QOL area and resilience scale have been calculated for this look at.

d. The institutional review board of the college permitted the look at.

Nameless records had been amassed via an electronic survey sent to all faculties of nurses. The survey took about 15 to half-hour to complete. Statistics will recoded, taken care of, and organized for analysis using the SPSS model 26.0 software bundle (IBM Corp, Armonk, ny, united states of america).The obtained information will mentioned at the quit of this semester. The acquired consequences from this challenge might be stated in booklet and /or meetings participations.

2.3 Ethical considerations

This study had approval by the Research and Ethics Committee, Nursing faculty, Deanship of Development and Quality Hail University and Ministry of Health. Institutional Review Board (IRB). The study will be conducted

according to the guidelines laid down for medical research involving human subjects Informed voluntary consent will be taken from each participant and information will be obtained from each participant in a private setting. The data will be accessible only by the principal investigator and co-investigators and confidentiality will ensured throughout the study, with explanation of study objectives with strict confidentiality and the name and identity will be optional.

2.4. Data analysis

Data analysis was conducted using the IBM SPSS statistics software (version 25.20). Descriptive analysis, including means, standard deviations, frequencies, and percentages, was used to describe the study variables. The independent samples t-test and one-way ANOVA were used to assess the statistical significance of the mean differences in the nurses' perceptions of quality of life and perceived stress across the levels of measured binary and multi-level categorical demographic and professional characteristics. Pearson's correlation coefficient (r) test was used to assess the associations between the metric variables.

3. Results

3.1.Sociodemographic and professional characteristics Table 1 presents the characteristics of the study sample of Seventy-seven working nurses

completed survey with a score of 98.7%. The majority (n = 77, 98.7%) were between 24 and 54 years old, and the mean years of work experience was 13 (SD= 0.817). There was only Few of the male nurses 7.7 %(n = 6) respondents. The correlation of the environment(r=0.43, P<0.035)(M=27.1) and Psychological factors was (0510, P<0.003)(M=20.3) was high while, when comparing the scores of quality of life of ED nurses in the other.

Table 1. The demographic and professional characteristics of nurses (N =77)

Variable	Categories	Frequency (%)	Mean (SD)
Gender			
	Male	6 (7.7)	
	Fmale	71 (91.0)	
Age (Years)			
	24-34 years	39 (50.0)	
	34-44 years	23 (29.5)	
	44-54 years	15 (19.2)	
Nationality			
	Saudi	32 (41.0)	
	non-Saudi	45 (57.7)	
Years working as a nurse			
	1-3 years	16 (20.5)	
	4-6 years	13 (16.7)	
	7 years-above	48 (61.5)	
Shift worked			
	day shift	58 (74.4)	
	mid shift		
	night shift	11 (14.1)	
Hours/shift			
	8 hours	60 (76.9)	
	10 hours	3 (3.8)	
	12 hours	14 (17.9)	
Work status			
	full-time	65 (83.3)	
	part-time	6 (7.7)	

per diem   6 (7.7)

Age

Nursing experience   13 (SD= 0.817).

3.2. The linear regression was conducted for each independent variable in **table 2** below. The independent variables with P < .20 were entered in the multiple regression models to predict each QOL domain. There was a high correlation between workspace Environment and Psychological factors with resilience score (r=0.43, P<0.035 and 0.510, P<0.003) respectively.

Table 1. Multiple Regression Model Summaries for QOL Domains

QOL Domain	R	R^2	Adjusted R^2	F	P
Physical health	.594	.353	.287	5.377	.000
Psychological	.510	.260	.185	3.459	.003
Social relationship	.593	.351	.285	5.336	.000
Environment	.436	.190	.108	2.310	.035

3.3. Description of quality of life and resilience

The basic descriptive statistics of quality of lifeand resilience are shown in Table 2. The mean score for quality of life was 20.1 and the mean score for resilience was 30.2. The domain of satisfaction with social

relationship had the lowest mean score (10.6) in comparison to the other domains, while the domain of environment satisfaction had the highest mean score (27.1).Psychological factors was (0510, P<0.003) (M=20.3)was high.While when comparing the scores of quality of life of ED nurses in the other factors like social (M= 10.6) were low among ED nurses. We found poor scores of QOL by 38% and poor resilience by 11.3%.

Table 3. The relationship between sample characteristics, quality of life andresilience (N =77).

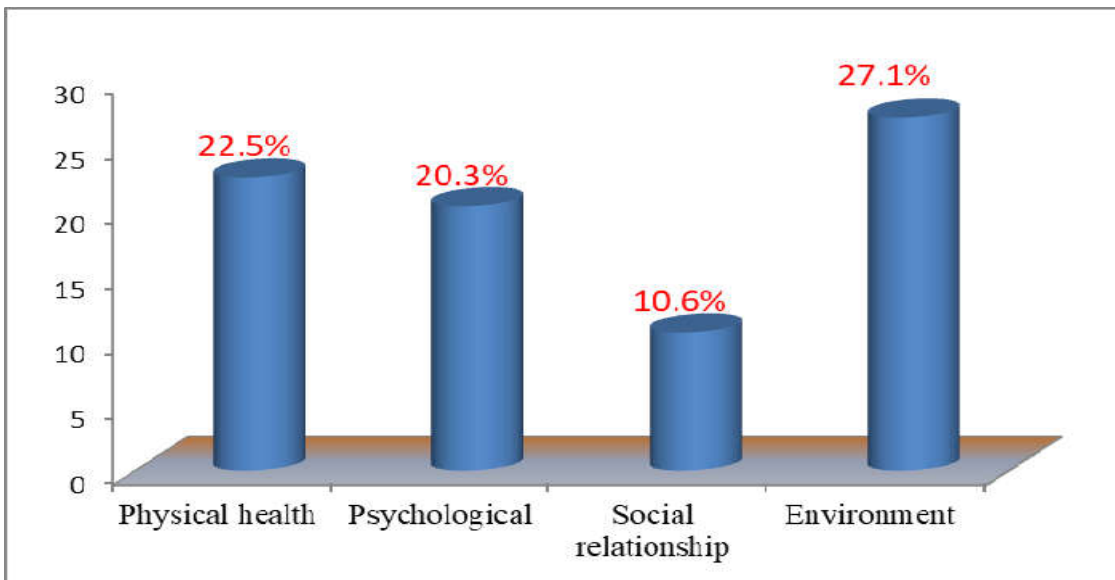| Scale/Subscales (Domains)	M (SD)	Range	Reliability (α)	Poor Score[a,b]	
				n	%
Quality of Life Scale (WHOQOL-BREF)					
Physical health (7 items)	22.5(4.1)	23-100	0.86	9	17.1
Psychological (6 items)	20.3(3.4)	18-100	0.70	13	28.2
Social relationship (3 items)	10.6(2.2)	12-100	0.61	17	38.1
Environment (8 items)	27.1(5.1)	25-100	0.72	3	3.9
Resilience Scale (CD-RISC-10)					
Resilience (10 items)	30.2(3.7)	12-40	0.82	4	11.3

Fig 1.shows the percentages of quality of life factors.

While when comparing the scores of quality of life of ED nurses in the other factors like social (M= 10.6) were low among ED nurses.

3.4. Relationship between poor score of quality of life and Resilience

The basic descriptive statistics of poor score of both quality of lifeand resilience are shown in Fig. 2. The mean poor score of quality of life was 21.8% and resilience was 11.3%
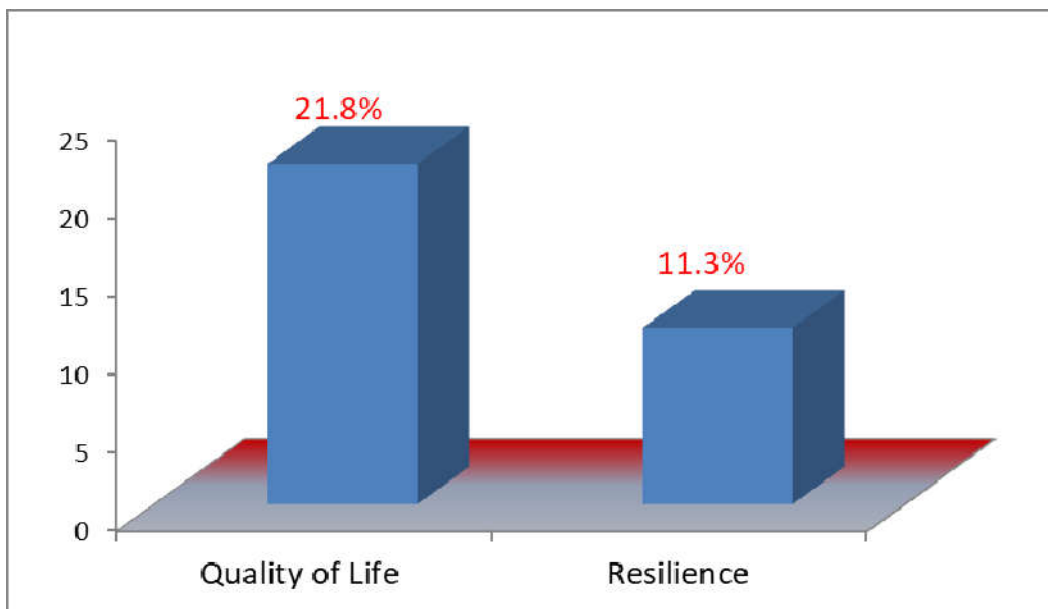
Fig 2.shows the percentages of poor score of both quality of life and resilience

4. Discussion

The results of this study discuss factors related to QOL among ED nurses during the COVID-19 pandemic. The advice resilience score for the nurse in our have a look at was 30.2 (SD, 3.7) comparing with some other have a look at 38.2(SD 5.2) which Resilience have become a strong variable that used to measure the factors [15].

Also in this study Notably, 17% to 38% of nurses had indicating poor QOL on measurement factors and 11.3% of nurses indicated poor resilience. Similar to another study showed that 21% to 54% of nursing students' QOL scores indicated poor quality of life [16].

Previous studies reported that one of the factors that negatively affected the relationships between nurses and the environment surrounding their work is social distancing. Also, nurses faced educational challenges that showed the link between flexibility and work. Studies also proved that a good work environment is something that provides a personal

space to manage challenges and develop capabilities to gain flexibility, thus enhancing workmanship[17].

The correlation of the environment (r=0.43, P<0.035)(M=27.1) and Psychological factors was (0510, P<0.003) (M=20.3)was high. While when comparing the scores of quality of life of ED nurses in the other Factors like social (M= 10.6) were low among ED nurses. Compared with another study more than a third of nursing members (n = 127; 36.6%) experienced fatigue. Men had higher quality-of-life scores than women in the areas of physical health (p = 0.001; d < 0.5), psychological (p = 0.001; d < 0.5) and social relationships (p = 0.048; d < 0.5). Women were more fatigued than men (p = 0.001; d < 0.5) [11].

5.1 Conclusion

The COVID-19 epidemic has caused major disruption to nurses working in the ED. this study discussed the multiple factors associated with Quality of life among nurses working in the ED at COVID-19 pandemic. Resilience was the strongest expectation Variable across all four QOL domains and the only importance a variable related to physical and mental health and Domains of Social Relations QOL. These findings illustrate the significance of Resilience amongst nurses operating inside the emergency and help department develop proof-primarily based applications to build resilience that may enhance satisfactory of existence among nursing.

5.2 Recommendations

There are several recommendations that will underpin future study. Firstly, future interventional studies investigating the effects of flexibility on quality of working life should be considered. Secondly, emphasis should be placed on comparing with pre-pandemic data or tracking developments during the pandemic. Finally, longitudinal studies are needed to understand career quality trajectories and the resilience of emergency healthcare professionals in the pandemic and beyond.

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