

Quality of Work Life among Nurses Interns During COVID-19 at Umm Al-Qura University

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Abstract

Background: The world is experiencing a global health crisis that is putting healthcare services to the test. In order to fully embrace the effects of COVID-19, it is critical to explore practical strategies that aim to expand the national nursing workforce. This study results will contribute to advance nursing as a profession and reinforce the foundation of Saudi Arabia's healthcare system transformation. **Aim:** To assess the quality of work-life for nurses' interns during the covid-19 pandemic at Umm Al Qura University. **Design** This study employed a descriptive quantitative cross-sectional method to identify major influencing factors of quality of work-life among nurses' interns during the covid-19 pandemic at Umm Al Qura University. **Sample:** An email invitation sent to 103 nurses' interns at Umm Al Qura University. Forty-four has completed the questionnaire, representing a response rate of 42.7%. **Tools:** An electronic self-administered questionnaire in the English language contained two parts; demographic information and The Work-Related Quality of Life (WRQoL) scale used to assess the quality of working life among nurses' interns. **Results:** Nurses' interns reported average scores ($M \pm SD = 3.28 \pm 0.62$) on the overall WRQoL. The working conditions subscale got the highest score ($M \pm SD = 3.66 \pm 0.85$) of WRQoL subscales, followed by the job career satisfaction subscale ($M \pm SD = 3.60 \pm 0.77$). Nurses' interns reported the lowest scores ($M \pm SD = 2.28 \pm 1.02$) on the stress at work subscale. The demographic variables of age, marital status and having children were found to affect the WRQoL scores of participants. **Conclusion:** The quality of work-life is an indicator of nurses' intent to leave their training or job and turnover. This study concluded that nurses' interns were having an average level of quality of working life. The nurses' interns were satisfied with their working conditions and the job career. However, the nurses' interns experienced excessive levels of stress at work.

Keywords: Covid-19, Pandemic, Quality of Work-life, Nursing students, Nurses' interns

BACKGROUND

The current COVID-19 outbreak reached nine countries by the second of March 2021, resulting in 2.6 million new cases, laboratory-confirmed cases and 63 000 deaths (WHO, 2021). On the thirtieth of January 2020, the World Health Organization announced it as an international public health emergency (WHO, 2020), and in April 2020, WHO developed COVID-19 prevention strategies, include the identification and isolation of cases, contact monitoring and quarantine, social and physical distance restrictions, international travel strategies, and vaccines and therapies (WHO, 2020). The rapid spread of COVID-19 and related mortality prompted many countries to take strict measures to control the pandemic (Ebrahim, Ahmed, Gozzer, Schlagenhaut, & Memish, 2020).

In Saudi Arabia, the struggle with COVID-19 persisting. Saudi Arabia's Ministry of Health has implemented many methods to control the transmission of COVID-19 throughout the country, such as patient isolation, active touch monitoring, border controls, preventing local and international flights, as well as organizing multi-training and precautionary sessions through powerful social media and ministry websites (Weqaya & MOH, 2020). Despite MOH's outstanding efforts in Saudi Arabia, more COVID-19 cases have been reported, and their numbers have increased over time.

Unfortunately, the world is experiencing a global health crisis that is putting healthcare services to the test. To date (March 2021), the number of confirmed nurse deaths now exceeds 2,200 due to COVID-19 have been confirmed worldwide, besides the high levels of infections in the nursing workforce is continuing (ICN, 2021).

With prior knowledge, that the nursing profession is already facing a severe shortage of the workforce. According to the World Health Organization (2020) report estimates a worldwide nursing shortage; in 2018, there is an insufficient nursing workforce with 5.9 million nurses to reach global health growth goals (Moulds, 2020). In particular, in considering the long-lasting shortage of national nurses in Saudi Arabia.

An earlier study conducted by Aboshaiqah (2016) reported that Saudi Arabia challenges recruiting and retaining Saudi nationals in the nursing workforce to comply with the Saudization of the workforce through the 1992 Royal Decree. Saudi Arabia has 5.2 nurses/per 1,000 population (WHO, Saudi Arabia key indicators: Global standards for the initial education of professional nurses and initial education of professional nurses and midwives, 2017), which is almost half that of other high-income countries with an average of 8.24 (OECD, 2020). However, nurses' shortages among the factors that have increased Saudi healthcare costs (Falatah & Salem, 2018). Staff reductions have also led to significant human resources management and public health problems (Alshareef, Wraith, Dingle, & Mays, 2020).

There is a rising concern in Saudi Arabia about nurses leaving the profession due to the lack of personnel and expertise in the Saudi health system (Falatah & Salem, 2018). Furthermore, according to Abolfotouh and his colleagues (2020), the healthcare workers in Saudi Arabia are under a load of physical and emotional pressure in handling COVID-19-infected patients, and they are still at a greater risk of acquiring and transmitting SARS-CoV-2.

Nurses and nurse interns who have had direct or indirect contact with confirmed or suspected COVID-19 cases, on the other hand, are at high risk of infection and mental health issues. Anxiety, post-traumatic stress symptoms, stigma, depressive symptoms, sleep disturbances, and worry about infection transmission to friends and family are among the most common psychiatric issues faced by nurses and nurse interns (Maben, Taylor, & Bridges, 2020).

Such mental health conditions affect healthcare providers' focus, awareness, and decision-making capacity, affecting their job performance and overall well-being in the long run. Maintaining these healthcare workers' psychological well-being is critical for controlling the crisis and their health (Khanam, et al., 2020; Murat, Köse, & Savaşer, 2020). Therefore, it is essential to grasp how nurse interns assume and react once they appraise an endemic of such magnitude.

An excellent workplace environment can be beneficial for staff' motivation, enhancing employees' spirituality, improving people's participation in decision-making, and increasing creativity as an essential source of mental well-being, and vice versa (Seyyedmoharrami, et al., 2019). However, any health organization's success depends on attracting recruits, motivating, and retaining its workforce, particularly during the COVID-19 pandemic. For nurses' interns, transitioning to practice will be challenging. The study aims to assess the quality of work-life for nurses' interns' during the covid-19 pandemic at Umm Al Qura University.

Regarding the factors that influenced nurses' mental health and the commonly reported stressors, the literature demonstrated that the main factors influenced nurses' mental health were self-perceived stress (Chen, Sun, Du, Zhao, & Wang, 2020), having less than two years of experience in the field of nursing, working in COVID-19 inpatients wards (Li, Zhou, & Xu, 2021), working in the emergency department, concern for family, being treated differently, negative coping style, COVID-19-related stress symptom (Nie, Su, Zhang, Guan, & Li, 2020), only child status (Mo, et al., 2020; Chen, Sun, Du, Zhao, & Wang, 2020), and working hours per week and anxiety.

According to (Chen, Sun, Du, Zhao, & Wang, 2020), the most commonly reported stressors among nurses were large infected populations, high infectivity; concern about family's health status; high mortality; long duration of the epidemic, and separation from family a long time. In the context with the results of the previous study, (Leng, et al., 2020) reported in their study that the significant stressors among nurses included working in an isolated environment, concerns about personal protective equipment shortage and usage, physical and emotional exhaustion, intensive workload, fear of being infected, and insufficient work experiences with COVID-19.

The sixth study from Spain, RevertéVillarroya, et al., (2020) performed a transversal descriptive study to explore if the Covid-19 pandemic impacted the mental health of 305 nursing students in their final year. The study results revealed that the nurses who were exposed to the pandemic situation had a twice-as-high chance of having mental health issues. Emotional fatigue has a detrimental impact on mental health, but a sense of coherence was acted as a protective factor.

Nurses' Quality of Sleep

Interesting findings from Portugal. Sampaio and his colleagues (2021) performed a prospective cohort study of 829 recruiting frontline nurses. During the COVID-19 outbreak, the researchers wanted to see if there were any changes in nurses' sleep quality or symptoms of depression, anxiety, or stress and whether the existence of possible risk factors affected these symptoms over time.

The study discovered that during the COVID-19 epidemic, nurses' sleep quality and symptoms of depression, anxiety, and stress increased. The only factors linked explicitly to the increases in nurses' depression, anxiety, and stress symptoms were the fear of infecting others and the fear of becoming infected (Sampaio, Sequeira, & Teixeira, 2021).

Anxiety

The increased prevalence of anxiety among nurses during the covid-19 pandemic was reported in three studies. To assess anxiety and coping methods among nursing students, Savitsky and his colleagues (2020) conducted a cross-sectional study in the Ashkelon Academic College. The study results revealed that the prevalence of moderate and severe anxiety among students was 42.8% and 13.1%, respectively.

In the same line with the previous findings, another cross-sectional study carried out among registered nurses by Labrague & De los Santos (2020) reported that 37.8% of the nurses were found to have dysfunctional anxiety levels.

However, according to Savitsky and his colleagues (2020), nurses' gender, lack of personal protection equipment, and fear of infection were significantly associated with a higher anxiety level. The previous results supported by a recent study conducted by Galehdar and others (2021) they reported the causes of anxiety among nurses in their qualitative study as follow, enclosed in protective equipment while taking care of patients with COVID-19, falling apart from their families and the fear of infecting them in returning home, and the familiar sources of nurses' fear and anxiety were the painful death of a patient with COVID-19. Regarding the factors that predicted COVID-19 anxiety among nurses, Labrague & De los Santos (2020) stated that social support, personal resilience and organizational support predicted COVID-19 anxiety.

THE IMPACT OF THE COVID-19 PANDEMIC ON NURSING WORK AND EDUCATION

Nurses' Turnover and Burnout

Chen and others (2021) conducted a cross-sectional study using a nationwide survey of 333 newly graduated nurses to examine registered nurses' competence in nursing care and their intention to remain in their jobs. The study discovered that nurses' commitment to their jobs was positively associated with their patient-care experience.

The study results revealed that the clinical stress, frequency of caring for people with infections and taking an infectious nursing course were significant predictors of nurses' intention to stay. The inexperienced nurses' competencies in pandemic disease care and infectious adult care were based on their prior nursing experience and nursing competence, which may have affected their decision to stay (Chen, Liu, Yang, Wang, & Hsieh, 2021).

Moreover, a systematic review was conducted to synthesize and introduce the best available evidence on the experiences of nurses working during a pandemic (Fernandez, et al., 2020). According to the study, nurses are more likely to have significant psychological issues, leading to burnout and leaving their profession.

The Quality of Working Life

McFadden, et al., (2020) conducted a cross-sectional study of 3425 participants working in health and social care in the UK during the COVID-19 pandemic to explore the relationship between coping strategies, well-being, and the quality of working life. Participants included nurses, midwives, allied health practitioners, social care workers, and social workers. The study results revealed that poor coping strategies, such as avoidance, were risk factors for low well-being and poor work quality.

To assess the pandemic's potential impact on nurses' professional aspects. Li et al. (2020) used qualitative and quantitative data to conduct a cross-sectional survey. The researchers stated that the frontline nurses had a considerably higher professional identity than non-frontline nurses, according to the study (professional identity include; professional social support, professional social proficiency and dealing with professional frustration). The results of the study provide a conclusion that the COVID-19 outbreak contributes to enhancing professional identity.

METHODS

Design

A descriptive cross-sectional design was used.

Sample and Sample Size

A vital shortcoming of the non-probability sampling method is that samples would not be representative of probability sampling (Polit & Beck, 2017). Since such samples are usually easier to obtain, nonprobability sampling techniques are more commonly used in nursing. The most commonly used nonprobability sampling methods are convenience sampling, quota sampling, purposive sampling, snowball sampling, and theoretic sampling (Boswell & Cannon, 2017; Polit & Beck, *Nursing research: Generating and assessing evidence for nursing practice*, 2017).

The convenience sampling method was chosen to collect and analyses the data from all available fifth-year nursing students at Umm Al Qura University. Convenience sampling is the method of selecting people for inclusion in a sample conveniently based on their availability. It has also known as accidental sampling, and it is the easiest and least representative of all the sampling techniques. It is also the most commonly used sampling strategy in nursing research studies (Boswell & Cannon, 2017). The concern with the convenience sampling method is that available participants might not be representative of the population in terms of key variables (Polit & Beck, 2017).

Procedure

Participants were recruited for the study using an online invitation through emails and WhatsApp groups sent to 103 nurses' interns at Umm Al Qura University using their organization's electronic mail system.

Data Collection

Data were collected using semi-structured interviews to direct participants' responses. Face-to-face interviews were conducted with the six midwives. The discussions happened in a private room in the labor unit. With an interview guide focusing on the experiences and personal perspectives of the midwives in their perception about their competency during the second and third stages of labor, the researcher used open-ended questions during the interviews to support the interviewees in describing their experiences and personal perspectives and encouraged them to talk freely. The interview is tape-recorded, and each interview takes about 40-60 minutes.

All interviews were carried out in Arabic, transcribed in Arabic and translated into English for purposes of analysis. Transcripts were then back translated into Arabic to ensure that no loss of meaning of participants' experience had occurred, and to validate the conceptual equivalence of translation. English version transcripts were read by both researchers (WA, FA). WA conducted the initial coding for all interviews, FA performed initial coding for a random selection of interviews and coding themes derived from the interviews were compared.

Data Analysis

The data reviewed, coded and entered in an Excel file and transferred to SPSS v.21 (Statistical Product and Service Solutions 26, IBM Corporation, Armonk, NY, USA) for further analysis.

- Descriptive statistics, including frequency, distribution, mean and standard deviation used to describe different characteristics.
- Inferential statistics, including an unpaired t-test or one-way ANOVA used for normally distributed data for comparisons between groups. Pearson Chi-square test used to explore the statistical differences between the categorical variables at the 5% level of significance. Values of $p < 0.05$ considered significant.

Ethical Considerations

Ethical approval for the study was sought and obtained from the Ministry of Health Ethics Committee (097/2020). Informed consent was obtained from all study participants prior to the interviews and confidentiality was assured.

RESULTS

Demographic and Personal Characteristics

Table 4.1 shows that 77.7% of the nurses' interns were female, and 22.7% were male. Fifty-six of the nurses were in the age group of 20-23 years old, 29.5% were between 24-27 years, and 13.6% were aged 28 years and more. More than two-thirds (79.5%) of the nurses were single, and 20.5% were married. Less than one third (13.6%) of the nurses have children, whilst 86.4% do not have children (see Table 4.1).

Table 4.1: Demographic and personal characteristics of the study group (N = 44).

Socio-demographic characteristics		No	%
Gender	Male	10	22.7
	Female	34	77.3
Age	20-23 years old	25	56.8
	24-27 years old	13	29.5
	More than 28 years old	6	13.6
Marital Status	Single	35	79.5
	Married	9	20.5
Do You Have Children?	No	38	86.4
	Yes	6	13.6

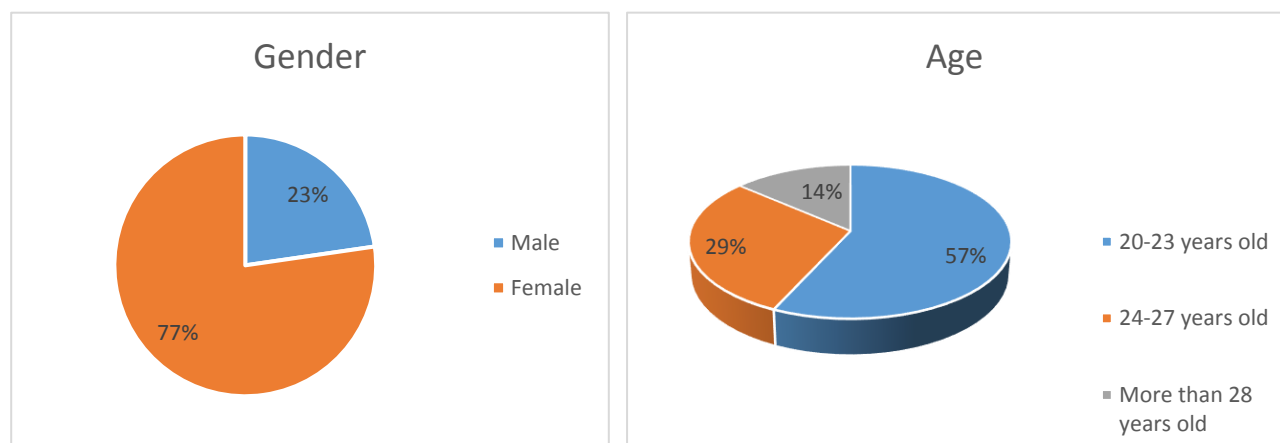


Figure 4.1: age and gender of the respondents (N = 44)

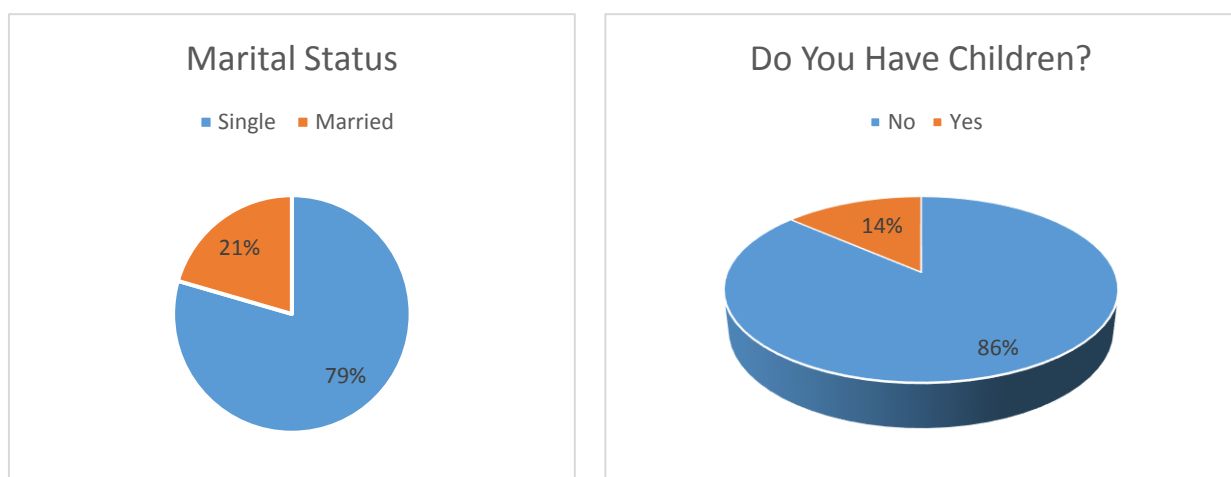


Figure 4.2 Marital status and children of respondent (N = 44)

Work-Related Quality of Life (WRQoL) Scale

This section provides descriptive statistics for the WRQoL scale, including six sub-factors which are job and career satisfaction (JCS), general well-being (GWB), stress at work (SAW), control

at work (CAW), home-work interface (HWI) and working conditions (WCS). Each participant responded to items and rated them on a five-point, Likert-type scale. The reliability coefficient for **WRQoL** with its subscales has been calculated by using Cronbach's alpha, with good internal consistency scores demonstrated. Cronbach alphas for **WRQoL** was 0.84 for the six subscales, the median Cronbach's alpha for JCS, GWB, SAW, CAW, HWI and WCS were 0.80, 0.74, 0.65, 0.60, 0.67, 0.79 respectively (see Table 4.2).

Table 4.2: Subscale and Overall Reliability Scores for the WRQoL Scale

WRQoL subscales	Alpha	N of items
GWB General Well Being (GWB)	.742	6
HWI Home-Work Interface (HWI)	.677	3
JCS Job Career Satisfaction (JCS)	.80	6
CAW Control at Work (CAW)	.601	3
WCS Working Conditions (WCS)	.796	3
SAW Stress at Work (SAW)	.651	2
WRQoL	.842	23

Job and Career Satisfaction (JCS)

Six items explored Job and Career Satisfaction; more than two-thirds (72.7%) of the sample have a clear set of goals and aims to enable them to do their training. Also, 75% of the nurses' interns have the opportunity to use their abilities at training. At the same time, only 50% agreed that their line manager acknowledged their good job. The proportions of the nurses' interns who were satisfied with the training opportunities available for them and their training to perform the present job were 61.3% and 54.6%, respectively. (see Table 4.3 below).

Table 4.3: Responses reflecting Job and Career Satisfaction Scale (N = 44)

Job and Career Satisfaction (JCS) items	SD	D	N	A	SA	% Of agreement	Chi-square	
	N (%)	N (%)	N (%)	N (%)	N (%)		X²	P
I have a clear set of goals and aims to enable me to do my training	1 (2.3%)	4 (9.1%)	7 (15.9%)	22 (50.0%)	10 (22.7%)	72.7	29.86	.000
I have the opportunity to use my abilities at training	1 (2.3%)	1 (2.3%)	9 (20.5%)	20 (45.5%)	13 (29.5%)	75	30.09	.000
When I have done a good job, it is acknowledged by my line manager	5 (11.4%)	8 (18.2%)	9 (20.5%)	16 (36.4%)	6 (13.6%)	50	8.50	.07
I am encouraged to develop new skills	3 (6.8%)	8 (18.2%)	8 (18.2%)	17 (38.6%)	8 (18.2%)	56.8	11.68	.02
I am satisfied with the training opportunities available for me here	2 (4.5%)	4 (9.1%)	11 (25.0%)	17 (38.6%)	10 (22.7%)	61.3	16.22	.003
I am satisfied with the training I receive in order to perform my present job	3 (6.8%)	5 (11.4%)	12 (27.3%)	15 (34.1%)	9 (20.5%)	54.6	11.00	.02

SD= Strongly Disagree, **D**= Disagree, **N**= Neutral, **A**= Agree, **SA**= Strongly Agree.

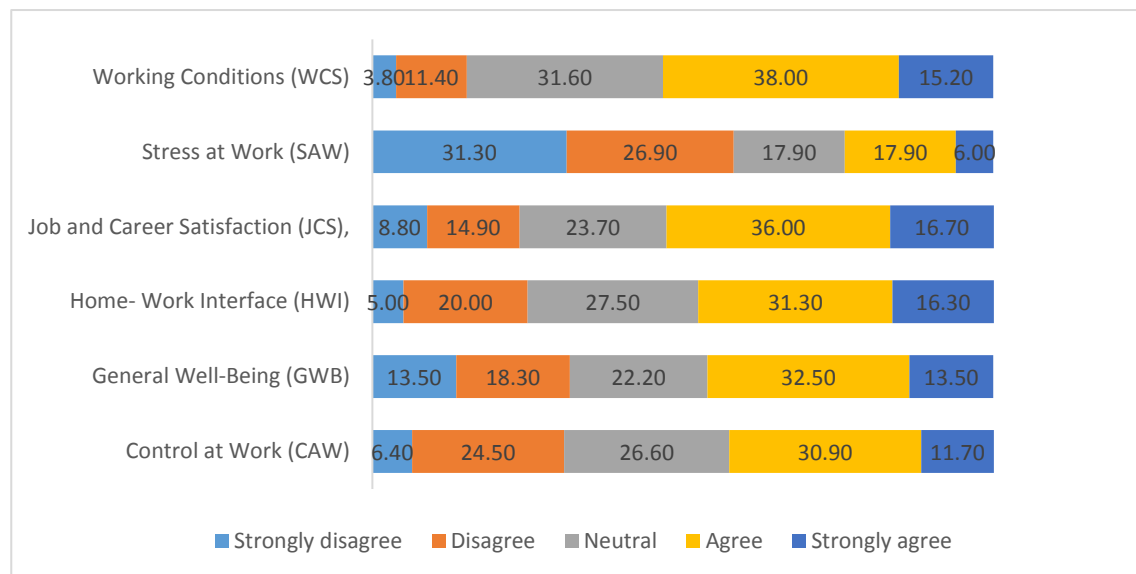


Figure 4.3: Distribution of responses to the items on WRQoL questionnaire presented as percentages.

General Well-Being (GWB)

Six items reflected the general well-being of the nurses' interns: more than two-thirds (77.2%) of the participants feel well at the current moment. Likewise, 84 % of nurses' interns are satisfied with their life. At the same time, only 20.5 % agreed that they do not have been feeling unhappy and depressed (see Table 4.4).

Table 4.4: Responses reflecting General Well-Being (GWB) Scale (N = 44)

General Well-Being (GWB) items	SD	D	N	A	SA	% of agreement	X ²	P
	N (%)	N (%)	N (%)	N (%)	N (%)			
I feel well at the moment	0 (0.0%)	1 (2.3%)	9 (20.5%)	24 (54.5%)	10 (22.7%)	77.2	24.90	.000
I am satisfied with my life	0 (0.0%)	1 (2.3%)	6 (13.6%)	24 (54.5%)	13 (29.5%)	84	27.09	.000
In most ways my life is close to ideal	5 (11.4%)	10 (22.7%)	10 (22.7%)	16 (36.4%)	3 (6.8%)	43.2	11.68	.02
Generally, things work out well for me	0 (0.0%)	3 (6.8%)	4 (9.1%)	29 (65.9%)	8 (18.2%)	84.1	40.54	.000
Recently, I have been feeling reasonably happy all things considered	1 (2.3%)	8 (18.2%)	14 (31.8%)	17 (38.6%)	4 (9.1%)	20.5	20.31	.000
Recently, I have been feeling unhappy and depressed	14 (31.8%)	11 (25.0%)	5 (11.4%)	10 (22.7%)	4 (9.1%)	31.8	8.04	.09

SD= Strongly Disagree, D= Disagree, N= Neutral, A= Agree, SA= Strongly Agree.

GWB factor has reversed question 9 (i.e higher value = better QoWL).

Stress at Work (SAW)

Two items reflected the nurses' interns stress at work (training): the most of participants (88.7%) do not feel like "they are under pressure at training". Likewise, 75 % of nurses' interns do not feel excessive levels of stress at training (see Table 4.5).

Table 4.5: Responses reflecting Stress at Work (SAW) Scale (N = 44)

Stress at Work (SAW) items	SD	D	N	A	SA	% of disagreement	χ^2	P
	N (%)	N (%)	N (%)	N (%)	N (%)			
I often feel under pressure at training	18 (40.9%)	12 (27.3%)	9 (20.5%)	2 (4.5%)	3 (6.8%)	88.7	19.86	.001
I often feel excessive levels of stress at training	11 (25.0%)	13 (29.5%)	9 (20.5%)	10 (22.7%)	1 (2.3%)	75	9.63	.04

SD= Strongly Disagree, D= Disagree, N= Neutral, A= Agree, SA= Strongly Agree.

SAW = SAW factor has reversed the negatively phrased questions 7 and 19 (i.e. so that higher value = better WRQoL).

Control at Work (CAW) Items

Three items reflected the nurses' interns' control at work (training): more than half (52.3%) of the respondents are involved in decisions that affect them in their training area. Likewise, 47.8 % of nurses' interns feel able to voice opinions and influence changes in their training area. At the same time, only 27.3% are involved in decisions that affect public members in their training area (see Table 4.6).

Table 4.6: Responses reflecting Control at Work (CAW) Scale (N = 44)

Control at Work (CAW) items	SD	D	N	A	SA	% of agreement	χ^2	P
	N (%)	No (%)	No (%)	No (%)	No (%)			
I feel able to voice opinions and influence changes in my area of training	3 (6.8%)	9 (20.5%)	11 (25.0%)	16 (36.4%)	5 (11.4%)	47.8	21.45	.000
I am involved in decisions that affect me in my own area of training	3 (6.8%)	11 (25.0%)	7 (15.9%)	15 (34.1%)	8 (18.2%)	52.3	9.18	.05
I am involved in decisions that affect members of the public in my own area of training	1 (2.3%)	14 (31.8%)	17 (38.6%)	9 (20.5%)	3 (6.8%)	27.3	11.90	.01

SD= Strongly Disagree, D= Disagree, N= Neutral, A= Agree, SA= Strongly Agree.

Home- Work Interface (HWI)

Three items reflected the Home-Work Interface: more than half (59.1%) of the sample agreed that their current working hours/patterns suit their personal circumstances. Similarly, 54.5% of nurses' interns agreed with the statement that indicates, "My employer provides adequate

facilities and flexibility for me to fit work in around my family life". Whilst only 43.1 % found that their line manager actively promotes flexible training hours/patterns (see Table 4.7).

Table 4.7: Responses reflecting Home-Work Interface (HWI) Scale (N = 44)

Home-Work Interface (HWI) items	SD	D	N	A	SA	% of agreement	X ²	P
	N (%)	N (%)	N (%)	N (%)	N (%)			
My employer provides adequate facilities and flexibility for me to fit work in around my family life	2 (4.5%)	7 (15.9%)	11 (25.0%)	13 (29.5%)	11 (25.0%)	54.5	8.72	.06
My current working hours / patterns suit my personal circumstances	2 (4.5%)	3 (6.8%)	13 (29.5%)	17 (38.6%)	9 (20.5%)	59.1	18.72	.001
My line manager actively promotes flexible training hours / patterns	0 (0.0%)	11 (25.0%)	14 (31.8%)	13 (29.5%)	6 (13.6%)	43.1	3.45	.327

SD= Strongly Disagree, D= Disagree, N= Neutral, A= Agree, SA= Strongly Agree.

Working Conditions (WCS) Items

Three items reflected the working conditions score: Almost three quarters (72.8%) of the respondents training in a safe environment. Correspondingly, 54.5% of the nurses' interns agreed that their training conditions are satisfactory. However, 52.3% of nurses' interns agreed that their employer provides them with what they need to do the training effectively (see Table 4.8).

Table 4.8: Responses reflecting Working Conditions (WCS) Scale (N = 44)

Working Conditions (WCS) items	SD	D	N	A	SA	% of agreement	X ²	P
	N (%)	N (%)	N (%)	N (%)	N (%)			
My employer provides me with what I need to do my training effectively	1 (2.3%)	4 (9.1%)	16 (36.4%)	15 (34.1%)	8 (18.2%)	52.3	19.86	.001
I train in a safe environment	3 (6.8%)	2 (4.5%)	7 (15.9%)	20 (45.5%)	12 (27.3%)	72.8	24.86	.000
The training conditions are satisfactory	1 (2.3%)	3 (6.8%)	16 (36.4%)	17 (38.6%)	7 (15.9%)	54.5	24.63	.000

SD= Strongly Disagree, D= Disagree, N= Neutral, A= Agree, SA= Strongly Agree.

Overall Work-Related Quality of Life (WRQoL) Scale

Among the WRQoL subscales, the working conditions scale got the highest percentage (53.2%) of participants agreed. Likewise, 52.7% of the sample were agreed and strongly agreed on the job and career satisfaction scale. However, the home-work interface, the general well-being and the control at work subscales got 47.6%, 46%, 42.6%, respectively. The stress at work got the lowest percentage (23.9%) of participants agreement (see Table 4.9).

Table 4.9: Responses reflecting WRQoL Subscales (N = 44)

WRQoL Subscales	SD	D	N	A	SA	% of agreement	χ^2	P
	%	%	%	%	%			
Control at Work (CAW)	6.4%	24.5%	26.6%	30.9%	11.7%	42.6	16.00	.10
General Well-Being (GWB)	13.5%	18.3%	22.2%	32.5%	13.5%	46	14.50	.27
Home-Work Interface (HWI)	5.0%	20.0%	27.5%	31.3%	16.3%	47.6	24.18	.004
Job and Career Satisfaction (JCS),	8.8%	14.9%	23.7%	36.0%	16.7%	52.7	14.50	.27
Stress at Work (SAW)	31.3%	26.9%	17.9%	17.9%	6.0%	23.9	5.31	.50
Working Conditions (WCS)	3.8%	11.4%	31.6%	38.0%	15.2%	53.2	27.50	.002

Inferential Statistics

This section presents the study results associated with the main research questions. Inferential statistical analyses were used to examine the relationship between demographic data, including typical demographic questions such as age, gender, and marital status with Work-Related Quality of Life (WRQoL). Analysis of variance (ANOVA) and t-tests was utilized to identify the differences in WRQoL among participants characteristics.

Research Questions:

The first research question investigates: What is the level of quality of work-life among nurses' interns at Umm Al-Qura University? The second research question investigates: What are the significant factors that influence WRQoL among nurses' interns? The results of the statistical analysis to answer these questions divide into two-part. The first part examines the effect of the WRQoL subscales on the overall WRQoL, and the second part examines the effects of participants characteristics on the overall WRQoL and subscales.

The Overall WRQoL and Sub-Scales

Nurses' interns reported average scores ($M \pm SD = 3.28 \pm 0.62$) on the overall WRQoL, indicating more agreement. However, the working conditions subscale got the highest score ($M \pm SD = 3.66 \pm 0.85$) of WRQoL subscales, followed by the job career satisfaction subscale ($M \pm SD = 3.60 \pm 0.77$). Whilst nurses' interns reported the lowest scores ($M \pm SD = 2.28 \pm 1.02$) on the stress at work subscale (see Table 4.10).

Table 4.10: Mean and standard deviation of scores for overall WRQoL and subscales(N=44).

WRQoL subscales	Mean $\pm$ SD
General Well Being (GWB)	3.49 $\pm$ 0.65
Home-Work Interface (HWI)	3.50 $\pm$ 0.84
Job Career Satisfaction (JCS)	3.60 $\pm$ 0.77
Control at Work (CAW)	3.18 $\pm$ 0.83
Working Conditions (WCS)	3.66 $\pm$ 0.85
Stress at Work (SAW)	2.28 $\pm$ 1.02
WRQoL	3.28$\pm$0.62

GWB factor has reversed question 9 (i.e., higher value = better QoWL).

SAW = SAW factor has reversed the negatively phrased questions 7 and 19 (i.e., so that higher value = better WRQoL).

WRQoL = Data for the average of all 23-item questionnaire scores (includes reversed negatively phrased qns 7, 9, 19).

Work-Related Quality of Life and Demographic Data:

The demographic variables include age, marital status and having children were found to affect the WRQoL scores of participants. The T-test showed no statistically significant differences between males and females regarding the overall WRQoL and subscales (**P >0.05**). Furthermore, the T-test specified that there were statistically significant differences in marital status (**P = 0.05**) where a higher score of WCS indicated for married nurses (**M $\pm$ SD = 4.15 $\pm$ 0.77**) than singles (**M $\pm$ SD = 3.53 $\pm$ 0.83**).

Moreover, T-test indicated that there were statistically significant differences between nurses' interns who have or have not children (**P = 0.04**) and illustrated that higher SAW scores were indicated for nurses' interns who have not children (**M $\pm$ SD = 2.41 $\pm$ 0.98**) than nurses' interns who have children (**M $\pm$ SD = 1.50 $\pm$ 1.00**).

Whereas, the ANOVA test showed a significant difference among a different group of age with SAW (**P = 0.001**) and identified that the mean of SAW scores was higher in nurses' interns who have more than 28 years old (**M $\pm$ SD= 3.00 $\pm$ 1.14**) than others age groups. Moreover, the ANOVA test showed significant differences in the age associated with the JCS (**P = 0.05**) and identified that the mean of JCS was higher in nurses' interns who have 20-23 years old (**M $\pm$ SD= 3.82 $\pm$ 0.79**) than other age groups. As well, the ANOVA test showed a significant difference in age-associated with the overall WRQoL(**P=0.03**) and identified that the mean of overall WRQoL scores was higher in nurses' interns who have 20-23 years old (**M $\pm$ SD= 3.48 $\pm$ 0.65**) than other age groups (see Table 4.12).

Table 4.11: Potential Factors Related to WRQoL

Demographic characteristics		GWB	HWI	JCS	CAW	WCS	SAW	WRQoL
		Mean $\pm$ SD	Mean $\pm$ SD	Mean $\pm$ SD	Mean $\pm$ SD	Mean $\pm$ SD	Mean $\pm$ SD	Mean $\pm$ SD
Gender	Male	3.47 $\pm$ 0.60	3.30 $\pm$ 0.73	3.58 $\pm$ 0.72	3.27 $\pm$ 0.93	3.40 $\pm$ 1.00	2.05 $\pm$ 1.07	3.18 $\pm$ 0.52
	Female	3.50 $\pm$ 0.67	3.56 $\pm$ 0.87	3.61 $\pm$ 0.80	3.16 $\pm$ 0.81	3.74 $\pm$ 0.79	2.35 $\pm$ 1.01	3.32 $\pm$ 0.65
T-test	T	-0.150	-0.945	-0.093	0.365	-1.105	-0.823	1.261
	P-value	0.88	0.35	0.92	0.71	0.27	0.41	0.21
Age	20-23 years old	3.68 $\pm$ 0.68	3.65 $\pm$ 0.86	3.82 $\pm$ 0.79	3.35 $\pm$ 0.77	3.85 $\pm$ 0.73	2.52 $\pm$ 0.97	3.48 $\pm$ 0.65
	24-27 years old	3.13 $\pm$ 0.51	3.38 $\pm$ 0.69	3.18 $\pm$ 0.63	2.92 $\pm$ 0.90	3.51 $\pm$ 0.79	1.50 $\pm$ 0.50	2.94 $\pm$ 0.48
	> 28 years old	3.50 $\pm$ 0.51	3.11 $\pm$ 1.00	3.61 $\pm$ 0.72	3.06 $\pm$ 0.85	3.17 $\pm$ 1.24	3.00 $\pm$ 1.14	3.24 $\pm$ 0.51
ANOVA	F	3.419	1.202	3.237	1.214	1.953	7.922	3.649
	P-value	.042	.311	.050	.308	.155	.001	.035
Marital Status	Single	3.44 $\pm$ 0.67	3.42 $\pm$ 0.85	3.59 $\pm$ 0.73	3.17 $\pm$ 0.81	3.53 $\pm$ 0.83	2.41 $\pm$ 1.00	3.26 $\pm$ 0.63
	Married	3.69 $\pm$ 0.59	3.81 $\pm$ 0.75	3.67 $\pm$ 0.97	3.22 $\pm$ 0.93	4.15 $\pm$ 0.77	1.78 $\pm$ 1.00	3.39 $\pm$ 0.63
T-test	T	-0.99	-1.27	-0.27	-0.16	-2.012	1.70	-0.53
	P-value	0.324	0.209	0.783	0.87	0.05	0.09	.59
Do You Have Children?	No	3.51 $\pm$ 0.68	3.51 $\pm$ 0.85	3.69 $\pm$ 0.73	3.23 $\pm$ 0.81	3.66 $\pm$ 0.86	2.41 $\pm$ 0.98	3.33 $\pm$ 0.62
	Yes	3.39 $\pm$ 0.50	3.44 $\pm$ 0.81	3.06 $\pm$ 0.88	2.89 $\pm$ 0.98	3.67 $\pm$ 0.82	1.50 $\pm$ 1.00	2.99 $\pm$ 0.58
T-test	T	0.415	0.173	1.920	0.932	-0.023	2.107	1.262
	P-value	.680	.863	.062	.357	.981	.041	.214

GWB=General Well Being, HWI=Home-Work Interface, JCS=Job Career Satisfaction, CAW=Control at Work, WCS = Working Conditions, SAW=Stress at Work.

GWB factor has reversed question 9 (i.e. higher value = better QoWL).

SAW = SAW factor has reversed the negatively phrased questions 7 and 19 (i.e.so that higher value = better WRQoL).

WRQoL = Data for the average of all 23-item questionnaire scores (includes reversed negatively phrased qns 7, 9, 19).

DISCUSSION

The main findings in this study were that participants reported the factors they identified and how these factors affected their midwife's professional competency. The results indicate that the main issue was that the midwives were unfamiliar with the term competency in the second and third stages of labor as they depended on colleagues and healthcare providers for obtaining and receiving professional knowledge. There was a lack of resources that were made available to them which shows lack of guidance to support their practice (Bradshaw, Pettigrew, & Fitzpatrick, 2019). There were various explanations to these results presented by the factors that affected their practice such as the reality of their professional knowledge progress, university education and training and lack of training opportunities. The competency criteria for the second stage of labor are well defined by the ICM. Midwives in this study showed that they were not updated about the criteria of competency required during the second stage of labour and their reliance on their practice is on the background knowledge they acquired during

their education. This rises a critical issue regarding updating midwives' knowledge in Saudi Arabia (Walker & Spendlove, 2018). University education and hospital training have a major impact on midwife's competency. Education needs and training are essential and without continuous in-service training, the midwives' competence will recede threatening the quality of midwifery education and the midwifery profession (Bogren et al., 2019). Lack of opportunity for midwifery education in Saudi Arabia affects their competency and the existing program is not sufficient to meet the need of midwives. The follow up of courses inside a hospital and updating the knowledge also have an impact on their practice and competency. The absence of educational opportunities in health facilities affects the quality and follow-up of education and competency of the midwife (Demirci, Kabukcuoglu, Haugan, & Aune, 2021).

Lack of adequate training and courses had a significant impact on midwives' self-confidence and may also lead to failure in providing good care. To address this shortage, the Saudi Arabia's Vision 2030, Ministry of Health collaborates with the ministry of education to open a new section and programs for midwifery. Furthermore, in Saudi Arabia, the Bachelor's degree in midwifery education is still in its beginning stage (Alshammari & Alboliteh, 2022). Nurses are recruited to complete this program through Master's degree in midwifery programs. The Saudi Commission for Health Specialties (SCFHS) also offers a two-year postgraduate diploma in midwifery for nurses (Salem et al., 2018). As per the recommendation of this report, the universities in Saudi Arabia need to encourage Saudi national students to study midwifery programs and reopen these programs because of pressing need for direct-entry undergraduate midwifery as it currently does not exist in Saudi Arabia (Attallah & Hasan, 2022). Developing competency through clinical practice can be achieved by a suitable environment represented by management. Some other factors may affect the clinical practice too such as the wrong location of delivering room, lack of equipment, shortage of staff and lack of training. All these factors could affect the developing of competency of midwives (Wake & Wogie, 2020). This is consistent with the study finding that mentioned that the practice level was directly related to midwives' educational level, training related to active management of the third stage of labor, and knowledge level. To provide successful service to AMTSL, midwives should update their academic level and knowledge and improve their skills. All midwives should receive training from health facilities and the regional government should improve the educational level of midwives (Wake & Wogie, 2020).

Midwives in our study reported the lack of clarity in policies and procedures, the lack of clarity in scope of practice, hospital policies of midwives in the delivery room, and the deficiency of staff is directly linked to the effect on their competence significantly affecting the skills of midwives and therefore, their competency (Anna et al., 2020). Lack of clarity of work policies and procedure show that the midwives do not have enough awareness and follow-up of the department work policies and procedure. This means they do not have sufficient perception of the scope of practice and the competencies that exist in it (Aune, Holsether, & Kristensen, 2018). In accordance with the present results, previous studies have demonstrated that midwives and nurses play a significant role in health facilities, but they still experience barriers and difficulties in expanding their practice. It is critical that they are empowered and enabled to broaden their practice and work within their full scope of practice when patient needs as the service requirements demand it (Carolan-Olah, Kruger, & Garvey-Graham, 2015).

CONCLUSIONS

This study found that generally the midwives were not familiar with the term competency in the second and third stages of labor. This is mainly due to the midwives being dependent on obtaining and receiving professional knowledge through colleagues and healthcare providers and lack of knowledge resources available. Another reason is the lack of guidance and support to their practice. An attention needs to be made towards midwives' knowledge development in Saudi Arabia. Work settings in are required to establish policies that empower midwives continues education in the field through in service training and education to upgrade their clinical knowledge.

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