

## Factors influencing the overall self-efficacy and quality of life of frontline nurses



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### ARTICLE INFO

#### Article history:

Received 9 October 2022

Received in revised form

23 March 2023

Accepted 24 March 2023

#### Keywords:

Self-efficacy

Quality of life

Healthcare professionals

COVID-19 pandemic

Frontline nurses

### ABSTRACT

This study addresses the scarcity of data concerning self-efficacy and its influence on the quality of life among healthcare professionals during the COVID-19 pandemic. Specifically, the research aims to investigate the impact of the COVID-19 outbreak on the quality of life and overall sense of self-efficacy among frontline nurses. A quantitative-correlational approach was employed to gather data from 180 staff nurses working at government-subsidized premier hospitals in Hail City, Kingdom of Saudi Arabia. Convenience sampling was used, and the study was conducted at King Khalid Hospital, King Salman Specialist Hospital, and Hail General Hospital. Results indicate that gender did not exhibit a significant difference in general self-efficacy (GSE) ( $t=1.812$ ;  $p>0.072$ ), but it was found to be significant in relation to quality of life (QOL) ( $t=2.771$ ;  $p=0.006$ ). Civil status showed a significant difference in GSE ( $t=-3.668$ ;  $p<0.000$ ), while it did not have a significant impact on QOL ( $t=-.746$ ;  $p>.456$ ). Nationality revealed significant differences in both GSE ( $t=2.341$ ;  $p=.020$ ) and QOL ( $t=3.578$ ;  $p<0.001$ ). Additionally, age exhibited significant differences in both GSE ( $F=23.656$ ;  $p<0.000$ ) and QOL ( $F=34.087$ ;  $p<0.000$ ). Educational attainment was also found to be significant for both GSE ( $F=5.563$ ;  $p<.001$ ) and QOL ( $F=4.286$ ;  $p=0.006$ ), while years of experience showed significance in relation to GSE ( $F=6.416$ ;  $p=0.002$ ) and QOL ( $F=10.193$ ;  $p<0.000$ ). Furthermore, a significant correlation was observed between GSE and quality of life ( $r=.610$ ;  $p<0.000$ ). Gender (except for GSE), nationality, age, educational attainment, and civil status (except for QOL) were identified as influential factors affecting both GSE and QOL. These findings can inform policymakers in developing educational activities aimed at enhancing the general self-efficacy and quality of life of nurses.

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### 1. Introduction

The COVID-19 pandemic presents unprecedented challenges for healthcare professionals, particularly in terms of their own health and well-being (Albaqawi et al., 2021). Supporting these professionals is crucial, as they play a vital role in responding to the pandemic effectively. To navigate this situation, healthcare professionals need to possess the right attitudes and optimistic behavior within the clinical, interpersonal, and humanistic domains of nursing. It has been observed that nurses' positive attitudes and practices, such as

effectively engaging with patients in challenging circumstances, are associated with their level of self-efficacy (Warner et al., 2013). A strong sense of efficacy enables individuals to achieve tasks and maintain overall well-being. Individuals with high self-confidence view challenging tasks as opportunities to be overcome rather than threats to be avoided. This perspective fosters intrinsic motivation and deep engagement in activities (Bandura and Ramachaudran, 1994). Consequently, individuals set challenging goals, remain committed to achieving them, and intensify their efforts to persevere. Hence, it is crucial to investigate healthcare workers' general perceptions of self-efficacy and quality of life.

One prominent concept in this context is self-efficacy, which influences nurses' attitudes, actions, and behaviors when providing care to sick patients (Cziraki et al., 2017). Self-efficacy significantly impacts nurses' motivation to provide care, their decision-making processes, prioritization of

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<https://doi.org/10.21833/ijaas.2023.05.021>

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interventions, and their resilience in the face of challenges and setbacks (Monica and Ramanaiah, 2017). General self-efficacy can predict health behaviors and claims regarding quality of life (Cramm et al., 2013). Higher levels of self-efficacy among healthcare professionals have been associated with improved personal success, well-being, and reduced burnout (Milam et al., 2019). Furthermore, self-efficacy has been identified as a better predictor of quality of life (Fatima and Jibeem, 2019). While there is research on the impacts of the COVID-19 pandemic, there is limited information on how self-efficacy can enhance the quality of life for healthcare practitioners. Notably, nurses providing care to COVID-19 patients have exhibited low quality of life (Stojanov et al., 2021). Given the multifaceted challenges posed by the pandemic, it is essential to consider the role of self-efficacy in supporting healthcare professionals. Although there is existing literature on the effects of the COVID-19 pandemic, there is a lack of data on self-efficacy's potential to improve the quality of life for healthcare professionals.

This study aims to contribute to the understanding of enhancing the self-efficacy and quality of life of healthcare providers. It will shed light on how healthcare professionals can be naturally motivated to counteract the impacts of COVID-19, viewing challenges as opportunities rather than threats. Consequently, their sense of self-efficacy can be strengthened and improved. The findings of this study can inform policymakers on strategies to enhance the effectiveness of social initiatives aimed at mitigating the consequences of the COVID-19 pandemic and increasing self-efficacy in future pandemic scenarios. Thus, the study investigates how the COVID-19 outbreak has impacted the quality of life and overall sense of self-efficacy among frontline nurses.

## 2. Methods

This research employs a quantitative-correlational approach to examine the effect of the COVID-19 pandemic on general self-efficacy and quality of life among the frontlines in the Hail region, Kingdom of Saudi Arabia.

This study took place at government-subsidized premier hospitals in Hail City, Kingdom of Saudi Arabia (i.e., Hail General Hospital, King Khalid Hospital, and King Salman Specialist Hospital). These hospitals were at the forefront of emergency cases and different medical diseases. Convenience sampling was used, resulting in 180 participants. The Raosoft (<http://www.raosoft.com>) online calculator was used to note the number of participants with a 5% margin of error and 95% confidence level. Of the 218 participants invited to participate, only 180 answered the questionnaire (82.6% response rate).

The University of Hail's Institutional Review Board gave their clearance before data collecting began. The participants were sent a link through a

Google survey form with instructions to read the informed consent before responding to the questions. Participants had at least 15 minutes to complete the questionnaire during their breaks or leisure time. Moreover, they were assured that any information gathered would be handled with the highest confidentiality.

There were two instruments used in this study. The first is the General Self-Efficacy Scale (GSES), a 10-item psychometric tool that measures optimistic self-beliefs about one's ability to handle various challenging life tasks (Jerusalem and Schwarzer, 1992). A person can obtain a total score of between 10 and 40 points. The higher the score, the more self-efficacy there is, which leads to more confidence and a better ability to handle a challenging scenario. Scores of 10 to 24 were considered low, 30 to 40 as high, and 25 to 29 as average.

The second instrument is the WHO Quality of Life (WHOQOL) (Power et al., 1999). The WHOQOL-BREF is a 26-item questionnaire that measures QOL and general health as well as four domains: Physical health (7 items), psychological health (6 items), social relationships (3 items), and environmental health (8 items). Each question on the WHOQOL-BREF is graded on a response scale, defined as a five-point ordinal scale, with scores ranging from 1 to 5. The results are then linearly translated to a scale of 0 to 100.

The questionnaires underwent content validity testing to ensure they were relevant and served their intended purpose. This modified and adjusted questionnaire was pre-tested for 20 staff nurses in the Hail region. The questionnaire's internal consistency and reliability were assessed using Cronbach's alpha coefficient resulting in 0.89 for GSE and 0.86 for WHOQOL.

SPSS Version 21 was used to analyze the data. The frequency and percentage were utilized to determine the demographic profile of the respondents. The linear regression test was used to test whether a statistically significant relationship exists between the variables.

## 3. Results

Table 1 presents the demographic characteristics of the participants. Most of the participants belonged 25 years old and below (43.9%); equal participation of the gender with male (50%) and female nurses (50%) and civil status (single and married) 50% each. There were more Non-Saudis (61.1%) compared to Saudi nationals (38.9%), and the majority of them were Bachelor of Science in Nursing graduates (50%) and had an experience of five years and below (61.1%).

Table 2 presents the differences between the demographic characteristics and GSE and QOL. The gender of the participants found no significant difference on GSE ( $t=1.812$ ;  $p>.072$ ) but significant to QOL ( $t=2.771$ ;  $p=0.006$ ). On civil status, there found a significant difference in GSE ( $t=-3.668$ ;  $p<0.000$ ) but not significant to QOL ( $t=-.746$ ;

p>.456). Regarding the nationality of the participants, there found significant differences between both GSE (t=2.341; p=0.020) and QOL (t=3.578; p<0.001). Moreover, the age of the participants was found to have significant differences in both GSE (F=23.656; p<0.000) and

QOL (F=34.087; p<0.000). In addition, educational attainment was found to have significant to both GSE (F=5.563; p<0.001) and QOL (F=4.286; p=0.006) and years of experience concerning GSE (F=6.416; p=.002) and QOL (F=10.193; p<0.000).

**Table 1:** Demographic characteristics of participants (N=180)

Age	Frequency	Percent
25 years old Below	79	43.9
26-30 years old	40	22.2
31 years old and above	61	33.9
<b>Sex</b>		
Male	90	50
Female	90	50
<b>Civil status</b>		
Single	90	50
Married	90	50
<b>Nationality</b>		
Saudi	70	38.9
Non-Saudi	110	61.1
<b>Educational attainment</b>		
Diploma	10	5.6
BSN	90	50.0
With MA Units	40	22.2
Master's degree	40	22.2
<b>Years of experience</b>		
5 years below	110	61.1
6-10 years old	31	17.2
11 years above	39	21.7

**Table 2:** Differences between demographic characteristics, GSE, and QOL

Demographics	Mean	SD	t	DF	Sig. 2-tailed
<b>Gender</b>					
GSE	Male	2.85	.447	1.812	178
	Female	2.74	.343		
QOL	Male	3.63	.623	2.771	178
	Female	3.37	.649		
<b>Civil status</b>					
GSE	Single	2.69	.440	-3.668	178
	Married	2.90	.327		
QOL	Single	3.46	.625	-.746	178
	Married	3.54	.671		
<b>Nationality</b>					
GSE	Saudi	2.88	.415	2.341	178
	Non-Saudi	2.74	.384		
QOL	Saudi	3.71	.684	3.578	178
	Non-Saudi	3.37	.581		
<b>Age</b>					
GSE	25 years old Below	2.90	.426	23.656	3
	26-30 years old	2.45	.322		
	31 years old and above	2.88	.274		
QOL	25 years old Below	3.70	.623	34.087	3
	26-30 years old	2.86	.452		
	31 years old and above	3.66	.516		
<b>Educational attainment</b>					
GSE	Diploma	2.92	.244	5.563	4
	BSN	2.85	.427		
	With MA Units	2.57	.345		
QOL	Masters degree	2.85	.353	4.286	4
	Diploma	3.75	.482		
	BSN	3.61	.651		
	With MA Units	3.21	.664		
	Masters degree	3.49	.578		
<b>Years of experience</b>					
GSE	5 years below	2.75	.454	6.416	3
	6-10 yrs old	2.69	.294		
	11years above	2.98	.217		
QOL	5 years below	3.41	.715	10.193	3
	6-10 yrs old	3.32	.502		
	11years above	3.89	.329		

SD=Standard deviation; F= F-value; DF= Degrees of freedom

Table 3 presents the correlation between GSE and QOL. There found a significant correlation between GSE ( $r=.610$ ;  $p<.000$ ) and quality of life.

**Table 3:** Correlation between GSE and QOL

		GSE	QOL
GSE	Pearson Correlation	1	.610**
QOL	Pearson Correlation	.610**	1

\*\* Correlation is significant at the 0.01 level (2-tailed)

#### 4. Discussion

This study aims to investigate how the COVID-19 outbreak has impacted the lives of frontline nurses' quality of life and overall sense of self-efficacy. In this present study, gender was not a causal factor in GSE. According to [Hackett and Betz \(1981\)](#), women have fewer opportunities to achieve performance success or are not subjected to verbal persuasion about their successes that would trigger self-efficacy beliefs. However, this has not been established in this present study. This implies that regardless of gender, both women and men had increasing presumptions of ability and increased task standards during COVID-19. Conversely, gender was found significant to QOL. According to [Lee et al. \(2020\)](#), male individuals' social cohesion was significantly associated with higher QoL. Family ties may be seen as more vital for women than males since they are thought to play a more significant part in the family. Such current results contribute to identifying factors that policymakers can enhance to improve nurses' quality of life in situations like COVID-19.

On civil status, there found a significant difference in GSE. This implies that the willingness of the nurses to work during COVID-19 may increase with better self-efficacy, or perhaps the willingness to work in the nursing unit may decrease with lower self-efficacy. Accordingly, when under intense strain, it has been observed that people with high self-efficacy are more likely to use healthy coping mechanisms ([Pasay-An, 2020](#)) because they are confident in their ability to handle the situation and do not feel under too much pressure ([Zhang and Lu, 2009](#)). As such, nurses, in this context, can handle certain situations better and are more likely to persevere with their tasks. On the other hand, this study found no significant difference between civil status and quality of life, which could be credited possibly to the support from their managers. Therefore, this present study agrees with [Raymakers et al. \(2018\)](#) reported that quality of life did not significantly correlate with civil status.

While we cannot find literature to support our findings that the nationality of the participants had significant differences to both GSE and QoL, we recommend further investigation on this topic. Conversely, we found that Saudi nurses scored higher on GSE and QOL than non-Saudi nurses. Although one reason that can be highlighted as the difference between the nationality, GSE, and QOL is that Saudi nurses have full support holistically, especially since their family is with them during COVID-19. The study of [Alreshidi and Alsharari](#)

(2021) pointed out that most foreign nurses expressed dissatisfaction with their quality of work life. As such, it was recommended that hospital administrators take steps to improve the working conditions for foreign nurses to increase their output and level of patient care.

Moreover, the age of the participants was found to have significant differences in both GSE and QOL. It has been reported that people's performance in choice behavior, effort expenditure, cognitive patterns, and emotional reactions is strongly influenced by their ideas about their capacity to accomplish various behaviors ([Lenz, 2002](#)). In this study, younger nurses tend to have more general self-efficacy and quality of life, which can be credited to increased performance and quality of nursing influenced by their sense of self-efficacy and quality of life. Because of personality traits, individuals with a strong sense of self-efficacy concentrate on analyzing their problems to find suitable solutions for them. In the previous study, self-efficacy was linked to personality traits ([Molinari and Monserud, 2009](#)).

The participants' educational attainment was found to have significance to both GSE and QOL, while earlier studies conversely claimed that the level of education was not related to nurses' self-efficacy ([Gloudeaman et al., 2013](#); [Semiatin and O'Connor, 2012](#)). Moreover, it was revealed in a further study that there was a distinction among the nurses with the diploma, bachelor's, and master's degrees regarding the total mean self-efficacy score. Compared to nurses with diploma degrees, those with bachelor's degrees typically handle more intricate and multifaceted jobs. Additionally, it should be noted that there is little distinction between the duties assigned to nurses with diplomas and those with bachelor's degrees ([Gloudeamans et al., 2013](#)).

The years of experience were found significant to GSE and QOL. Researchers like [Gloudeamans et al. \(2013\)](#) mentioned that the best indicator of self-efficacy was the number of years of experience in the nursing field. This result was consistent with those showing a clear correlation between the years spent working as a mental health nurse and self-efficacy views. Additionally, the best indicator of self-efficacy was the number of years of experience in the field of nursing. This result was consistent with those showing a clear correlation between the years spent working as a mental health nurse and self-efficacy views ([Gloudeamans et al., 2013](#)). Indeed, positivity and efficient problem-solving are associated with high levels of self-efficacy ([Bandura et al., 1997](#)). Furthermore, life satisfaction is also correlated with high levels of self-efficacy. As a result, self-efficacious people have an excellent quality of life ([Luszczynska et al., 2005](#)).

Lastly, there found a significant correlation between general self-efficacy and quality of life, which means that while nurses take on more arduous activities, they tend to empower themselves better their quality of life. Self-efficacy and quality of



life (QoL) are regarded as two essential psychological ideas that can have an impact on a person's mental and physical health as well as their ability to solve problems. To Peters et al. (2019), self-management could be accomplished through self-efficacy. The multimorbidity negatively influences the quality of life, but it may be improved with good self-management.

## 5. Limitations of the study

This study has a few limitations, but these can be worked around in further research. The use of convenient sampling, for instance, underrepresents the population. Furthermore, this study's methodology involved self-reporting, where biases (over or under-rating) were anticipated. Therefore, it is crucial to analyze the study's findings cautiously.

## 6. Conclusion

The findings of this study reveal that gender (excluding GSE), nationality, age, educational attainment, and civil status (excluding QOL) have a significant influence on both general self-efficacy (GSE) and quality of life (QOL) among frontline nurses. Additionally, a significant correlation was observed between GSE and quality of life. These findings provide valuable insights for policymakers in developing targeted educational activities aimed at enhancing the general self-efficacy and quality of life of nurses.

By considering these factors as causal factors for GSE and QOL, policymakers can design interventions and initiatives that address the specific needs and challenges faced by nurses. For instance, educational programs can be tailored to promote self-efficacy among nurses of different genders, nationalities, age groups, educational backgrounds, and civil statuses. These programs can focus on enhancing self-confidence, coping mechanisms, and resilience in the face of challenges commonly encountered by frontline nurses. Additionally, interventions can be designed to improve the overall well-being and quality of life of nurses, taking into account the factors identified in this study.

By addressing these factors and promoting self-efficacy and quality of life, policymakers can support nurses in their crucial roles and contribute to their professional development and personal well-being. Ultimately, this will have a positive impact on the healthcare system as a whole, ensuring that nurses are better equipped to provide high-quality care to patients, particularly during challenging circumstances such as the COVID-19 pandemic.

Further research and longitudinal studies are recommended to delve deeper into the relationship between these factors, self-efficacy, and quality of life among healthcare professionals. This will provide a more comprehensive understanding of the complex dynamics at play and enable policymakers to refine and tailor their interventions accordingly.

In conclusion, the findings of this study highlight the importance of considering gender, nationality, age, educational attainment, and civil status as influential factors in shaping the general self-efficacy and quality of life of nurses. By leveraging these factors and promoting self-efficacy, policymakers can implement targeted educational activities that empower nurses and enhance their overall well-being, ultimately contributing to the advancement of the nursing profession and the provision of high-quality patient care.

## Funding

This study has been funded by the Scientific Research Deanship of the University of Ha'il-Saudi Arabia through project number GR-22 005.

## Acknowledgment

The researchers acknowledge the support of the Scientific Research Deanship of the University of Ha'il-Saudi Arabia through project number GR-22 005.

## Compliance with ethical standards

## Ethical consideration

Before distributing online questionnaires, the Institutional Review Board of the University of Hail approved and cleared the study.

## Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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