

Job Satisfaction and Wellbeing Among Paediatric Nurses During Covid-19 Pandemic: A Cross Sectional Study In Saudi Arabia

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Abstract

Nurses have been on the front line of the COVID-19 pandemic. This was difficult for all health professionals, especially in pediatric wards. Different factors may have influenced well-being and job satisfaction during the pandemic. In this study, we aimed to look for the effect of covid-19 pandemic on nurses' well-being and job satisfaction in pediatric wards in a tertiary center in Jeddah, Kingdom of Saudi Arabia (KSA).

Methodology: This is a cross-sectional, web-based survey among pediatric nurses working in the pediatric department in a tertiary hospital in Jeddah. The calculated sample size was 145, with a response rate of 85 %.

Results: In around 40 % of participants, stress and anxiety were associated with burnout and increased conflict with colleagues in the workplace. At the same time, depression and anxiety as a result of working in a hospital environment were reported among 48 % of participants. Depression and anxiety are measured by (HADS) scale. Results showed that the hospital environment negatively impacted depression/stress during the COVID-19 pandemic, regardless of the workplace. Importantly, participants not able to manage work-related stress significantly appeared not to receive adequate support (odd ratio:13 and P=0.02). While testing positive for COVID-19, significantly increased the odd ratio by 3 for depression (p-value 0.06). Job satisfaction was reported among 53 % of participants.

Conclusion: The study showed that approximately half of the pediatric nurses suffered psychological symptoms during the COVID-19 pandemic. Future plans should include adequate support for health professionals during times of pandemic or medical crisis.

Keywords: Nurse burnout, job satisfaction, covid 19 pandemic, Job-related stress.

Introduction

The COVID-19 pandemic posed a significant threat to world health in 2020. The COVID-19 epidemic caused considerable global damage, especially to the healthcare system. People's regular activities are significantly impacted by the lockdown procedures and the concern of spreading disease [1]. Like other nations, Saudi Arabia observed a spike in COVID-19 prevalence at the start of the epidemic, which sharply declined. Most of the burden during the COVID-19 epidemic fell on the medical staff. Despite being on the front lines, nurses had severe psychological effects.

During the COVID-19 pandemic the healthcare personnel encountered burnout (BO), compassion fatigue (CF) and compassion datification (CS).

In cross-sectional research conducted in Spain, doctors scored higher on the CF and BO scales, while nurses scored better on the CS scale. During COVID-19 [2], perceived stress levels were comparable between the two professions. The likelihood of experiencing psychological distress and post-traumatic stress symptoms (PTSS) when treating COVID-19 patients in Italy is highest [3]. Similar findings were found in Poland, according to a study evaluating the COVID-19 pandemic's effects on Polish nurses' working environment and patient safety [4].

There has not been much research on COVID-19 stress in pediatric wards. For instance, during COVID-19, nurses had to be transferred from pediatric to adult wards, which in part led to the rise in despair and burnout among nurses. To safeguard and care for nurses and other

healthcare professionals, it is essential to investigate the connections between psychological risk and the perception of a health emergency [5]. Importantly, pediatric healthcare workers are at higher risk of sleep disturbance, stress, and anxiety disorder, even though there is a lower likelihood of encountering infected patients. They discovered that 67.4 % of the sample had sleep disturbances, while 19.4 % had anxiety disorders [6]. Another reason is the concern that healthcare professionals may transmit the infection to their families, which puts strain on them and alters their mental health. To recover the staff nurses' wellness and resilience at this time, it is crucial to establish particular programs to help them relieve stress and anxiety. Additionally, the COVID-19 pandemic negatively influenced nursing staff job satisfaction in five European nations, particularly regarding working circumstances (Poland, Germany, Italy, Great Britain, and Sweden) [7].

Considering these aspects, it is essential to note that COVID-19 lowered work satisfaction among healthcare professionals. A person's degree of job satisfaction may be influenced by various variables, including financial incentives, working conditions, doctor-nurse and nurse-patient relationships, stress, and environmental factors [8]. In a meta-analysis of nursing practice, the research observed that a variety of characteristics, such as the patient's diagnosis, working conditions, the nurse's experience, age, type of institution, and self-respect outcome, may have an impact on the nurses' compassion and attitude [9]. Another systematic study further showed the attainment of Sustainable Development Goals (SDGs) by health professionals, which found that COVID-19 reduced the number of SDGs by 17 while creating favorable chances for 14 [10]. To enhance employment outcomes such as job satisfaction, stress levels, and desire to quit the company, front-line nurses may need to address their fear of COVID-19. Although a certain amount of worry might help inspire a person, long-term anxiety exposure may harm physical and psychological well-being and professional success [11]. This study aims to provide information on the psychological effects of the COVID-19 pandemic, especially about levels of stress, sadness, and anxiety among the nursing community in the pediatric department of a tertiary care facility.

Methodology

Healthcare workers who treat COVID-19 patients are more likely than the general population to experience psychological distress and post-traumatic stress symptoms (PTSS). A cross-sectional online survey of pediatric nurses working in several departments at a tertiary care facility in Jeddah was conducted for this research. The survey was conducted between April 2021 and June 2021. Following a review of the literature using the keywords "covid19 pandemic," "nurse satisfaction," "workload job satisfaction," and "work burnout," a group of four nurses and three doctors who work in the pediatric ICU at the same institution created the questionnaire using Google

Forms (<https://docs.google.com/forms>). Six different domains were made from a total of 34 questions.

The participant's demographic information made up the first domain. Workload and job satisfaction are covered in the second domain. The third domain dealt with the COVID-19 epidemic and nurse-to-patient care. The fourth area sought to investigate the organizational and environmental impacts of the COVID-19 epidemic. The influences of co-workers and colleagues are covered in the fifth domain. The last part focuses on maintaining mental health during the epidemic. Before releasing the survey, 15 pediatric nurses agreed to participate in a pilot study for testing and validation. Their comments were considered, and the survey questions have been examined and revised. A second examination was conducted to ensure the survey was not misleading, double-barrelled, or leading. The hospital anxiety and Depression Scale (HADS) and anti-depressant drug use are two ways to quantify depression and anxiety. Participants who score above 10 on the HADS are regarded as having signs of anxiety and depression.

Research Question

This study's objective is to provide light on the psychological effects of the COVID-19 pandemic, especially regarding levels of stress, sadness, and anxiety among the nursing community working in the pediatric department of a tertiary care facility. Another goal is to determine if the Covid 19 epidemic impacted the happiness and health of pediatric nurses at our facility. The research aims to evaluate the following question: How has the COVID-19 pandemic affected the levels of stress, sadness, anxiety, happiness, and overall health among nursing professionals in the pediatric department of a tertiary care facility?

Study Design

The investigation was carried out in Jeddah's tertiary care facility. It is a comprehensive tertiary care facility. (145/170) The response rate (RR) was 85 %. The respondents' participation in the study was voluntary, and they received no payment, gifts, or other benefits. The King Abdullah International Medical Study Centre KAIMRC and its IRB accepted the study protocol and proposal and assigned it the research protocol number RJ20/100/J. When completing their survey replies, every participant gave their informed permission.

Population and Sample

A total of around 3000 individuals are admitted for pediatric care each year. A sample size of 120 was determined based on our facility's total number of pediatric nurses. 145 of the 170 invited nurses responded to the survey. The phone number of each participant was individually confirmed before invites were delivered by email.

Statistical Analysis

We presented nominal data in frequencies and percentages and used the Chi-square test to compare these variables. For comparing two-category nominal variables measured on a Likert scale, we used the student-t test. We utilized multiple regression to compare variables.

We considered p-values less than or equal to 0.05 as statistically significant. All statistical analyses were conducted using version 26.00 of the Statistical Package for the Social Sciences (SPSS).

Results

This survey focused on 142 paediatric nurses and examined various aspects of their professional lives. The participants had varying ages, as indicated in: Table 01, with 42 % being between 30 and 40 years old and 22 % being over 40. Ethnicity-wise, 60 % of the participants were Asian, while 35 % were of Arabic origin. Over 50 % of the

participants were married, and 41 % were single. In terms of work experience, Figure 01 shows that 36 % of the participants had more than 10 years of experience, while 22 % had between 4 and 6 years of experience. Moreover, Figure 04 shows that the majority of the participants (60 %) worked in the paediatric and oncology ward, while 19 % worked in the paediatric ICU, and the percentage of working hours presented in Table 02 and Figure 02 showed that the participants generally had a 12-hour shift, with 95 % of the respondents reporting this.

Table 1: Demographic data of the participants

Age Group	Valid	frequency	Percentage
	26 - 30 Year's	44	30 %
	31 -40 Year's	61	42 %
	Less than 25 Year's	7	4.9 %
Ethnic Group	African Origin	3	2 %
	Arab Origin	51	35 %
	Asian Origin	86	59 %
Marital Status	Married	80	55 %
	Single	60	41 %
Work Experience	> 10 Year's	52	36 %
	4-6 Year's	32	22 %
	7-10 Year's	22	15 %
Work Places	PICU	19	13 %
	NICU	30	20 %
	WARD	2	1.4 %



Figure 1: Work experience

Table 2: Work load as per working hours and patient to nurse ratio

Variable	Values	N=144	
		frequency	Percentage
Working hours	valid		
	12 Hour's Shift	137	95 %
	Regular Office Hours	4	2.8 %
Workload Nurse to Patient Ratio	1:4	51	35
	1:6	35	24
	1:2	45	41

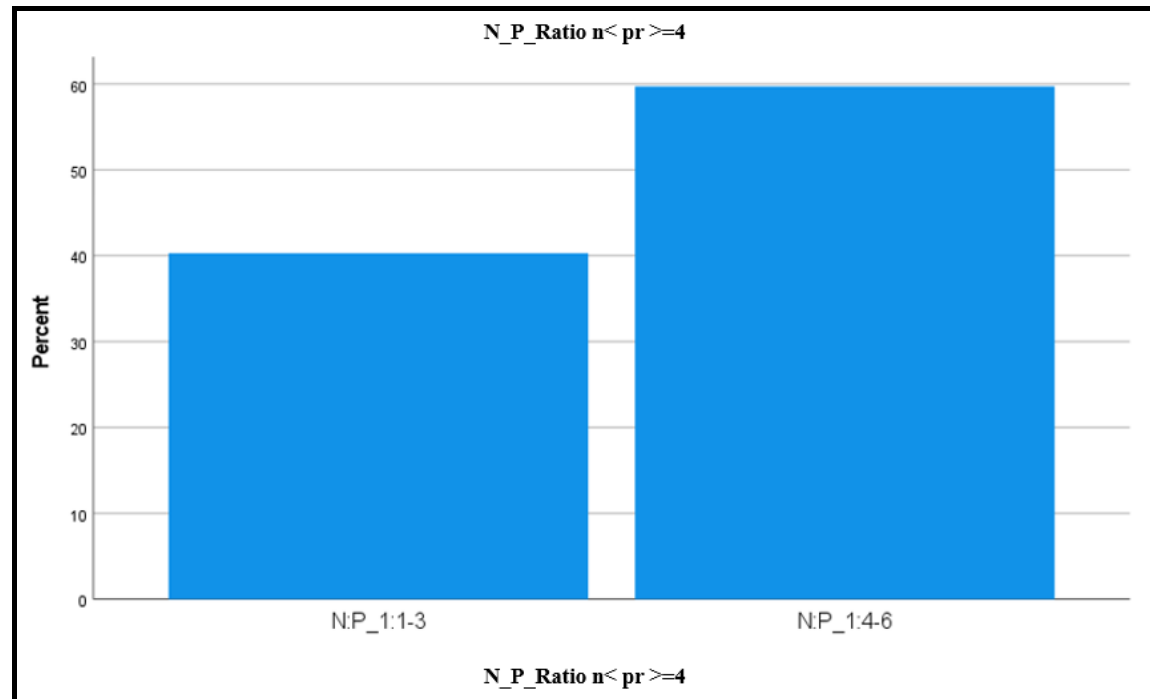


Figure 2: Work Load As Per Nurse to patient ratio

The workload of the participants was evaluated by asking about the nurse-to-patient ratio. **Table 02** and **Table 05** showed that 35 % had a one-to-four ratio (1:4), 31 % had a one-to-two ratio (1:2), and only 1.8 % had a one-to-one ratio (1:1). The COVID-19 pandemic had a significant impact on the participants. Around 23% of the participants, as shown in **Table 3** and **Figure 03**, tested positive for

COVID-19 by PCR, and nearly 50 % were afraid of getting infected and spreading the virus to their families. In terms of support from their organisation, **Table 04** shows that only 15 % of the participants were satisfied, 34 % were not satisfied, and the rest were neutral. However, 23 % felt that the administration and organisation were supportive during the pandemic.

Table 3: Covid 19 Status In Participants, Variables Related To Covid 19

variable	Values	N=144	
		Frequency	Percentage
Tested Positive with COVID-19	Valid		
	Yes	23	16 %
	No	113	84 %
Work related anxiety	Agree	68	47 %
	Disagree	11	7 %
	Neutral	45	31 %
Nursing Error During COVID-19	Agree	24	16 %
	Disagree	49	34 %
	Neutral	55	38 %
COVID-19 influenced my overall well being	Agree	56	38 %
	Disagree	11	7.6 %
	Neutral	43	29.9 %
Increase anxiety during pandemic	Agree	46	31 %
	Disagree	13	9 %
	Neutral	47	32 %

Table 4: Variables related to Job satisfaction and administration support

variable	Values	N=144	
	Valid	Frequency	Percentage
appreciation and reward by institution	Satisfied		15 %
	unsatisfied		34 %
Received emotional & psychological support from institution	Agree		72 %
	Disagree		12 %
	Neutral		33 %
Job satisfaction & income	Satisfied	53	36 %
	unsatisfied	83	63 %
ADMINISTRATION SUPPORT	AGREE	34	23 %
	DISAGREE	26	18 %

Table 5: Adjusted and unadjusted Odd ratio for variables (P: N = patient to nurse ratio)

Demographic	Unadjusted OR	p-value	Adjusted OR	p-value
Working Place				
- Ward	Ref.			
- PICU	3.059	0.20	3.82	0.19
Oncology	1.857	0.47	1.40	0.71
- Neonatal care	3.779	0.10	3.91	0.12
P:N ratio <4 or >=4	0.69	0.32	1.16	0.78
Nationality (Saudi/non-Saudi)	1.19	0.64	1.01	0.98
Marital Status (Married/non-married)	0.75	0.44	0.94	0.88
Working experience (years)				
➤ >10	Ref.			
➤ 4-10	0.61	0.35	0.63	0.54
➤ <4	1.86	0.14	2.36	0.11
Age Groups				
- >40	Ref.			
- 30-40	0.87	0.79	0.99	0.99
- <30	1.34	0.53	0.82	0.74
COVID-19 Test (-ve/+ve)	0.60	0.46	3.10	.06

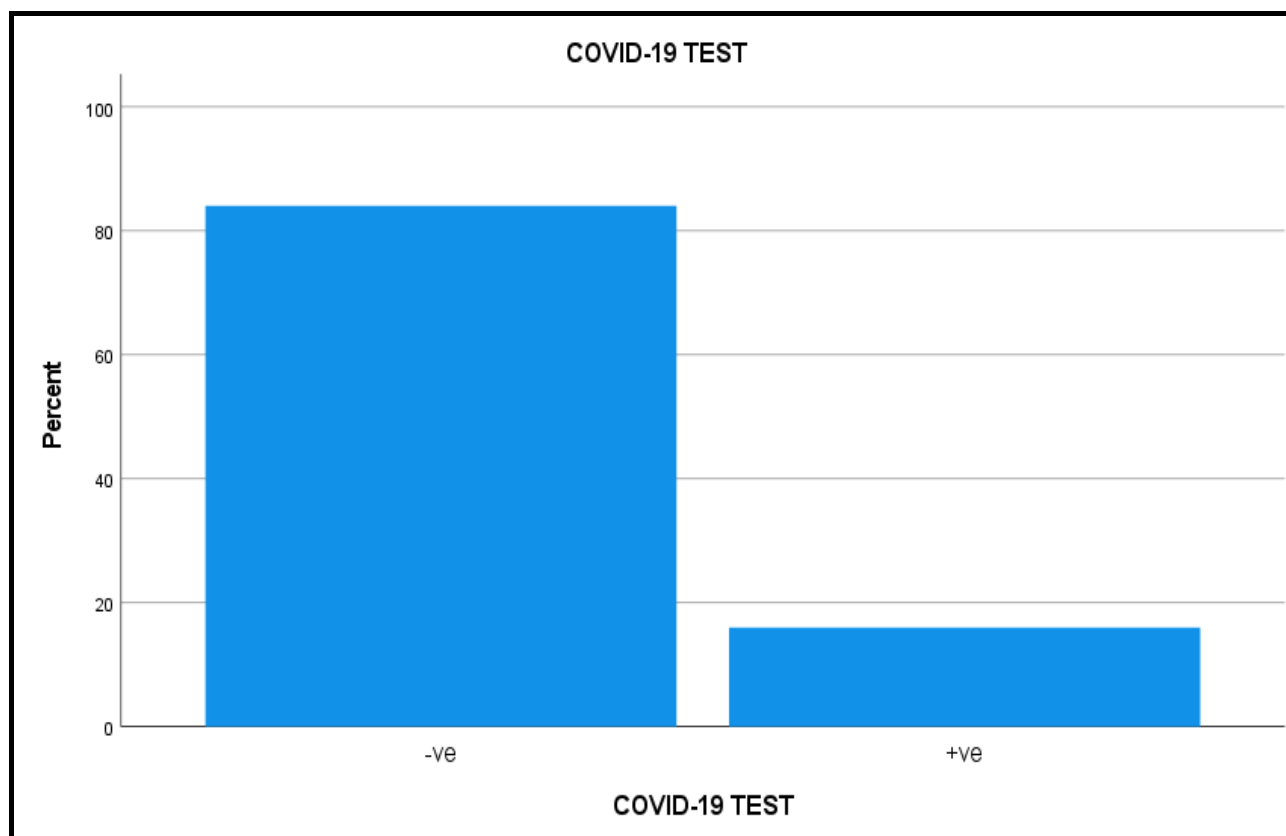


Figure 3: COVID 19 status

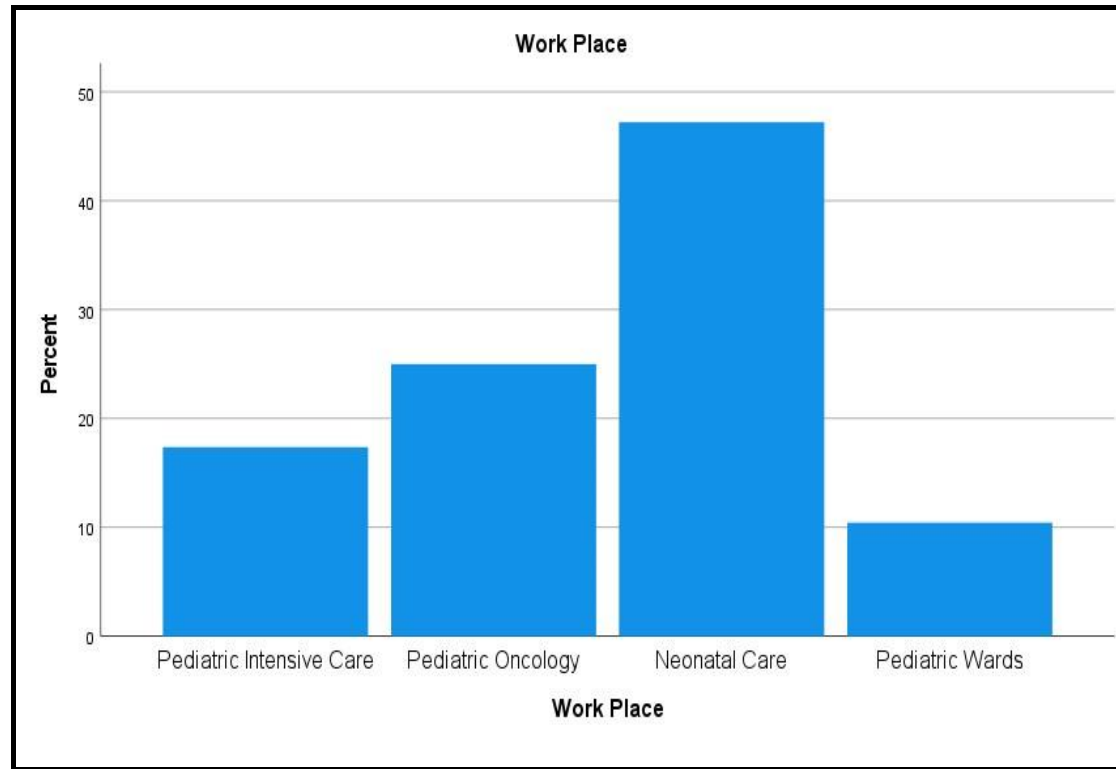


Figure 4: Work place

Table 06: Participants' experiences during the COVID-19 pandemic

Aspect	Percentage
Adequate COVID-19 Knowledge	60 %
Emotional & Psychological Support	27 %
Anxiety & Stress Impact	40 %
Depression & Anxiety Challenges	48 %
Job Satisfaction & Income	53 %
Job Satisfaction Impact on Institution Change	18 %

Adequate COVID-19 Knowledge

Furthermore, the data presented in **Table 06** shows that while 60 % of the participants felt that they received adequate knowledge about the COVID-19 pandemic and were working in a safe environment with appropriate equipment and self-protection materials, 27 % acknowledged that they received good emotional and psychological support from their direct supervisors. A significant proportion of participants (40 %) felt that anxiety and stress during the pandemic increased their burnout and conflict with colleagues.

Additionally, 48 % of the participants believed that depression and anxiety were problems they faced while working in a hospital environment during the COVID-19 pandemic. Regarding job satisfaction and income, 53 % of the participants were satisfied. However, 18 % of the same group claimed that job satisfaction could significantly change the institution if their expectations were unmet. Finally, the response bias analysis showed no statistically significant difference between early and late responders.

This survey's findings highlight the challenges pediatric nurses faced during the COVID-19 pandemic. Despite the efforts made by their organizations to provide support, the results suggest that more needs to be done to address the psychological and emotional well-being of these healthcare professionals. The high nurse-to-patient ratio reported by the participants can be a source of stress and burnout. Furthermore, the fear of contracting the virus and transmitting it to

their families and loved ones can take a toll on the mental health of these nurses. It is essential to provide them with adequate support to cope with the demands of their jobs during the pandemic. The study's findings suggest that job satisfaction is critical for pediatric nurses. While most participants were satisfied with their jobs, a significant number claimed that job satisfaction could influence their decision to stay or leave an institution. Therefore, it is crucial to meet nurses' needs and expectations to reduce turnover and maintain a stable nursing workforce.

In conclusion, this survey provides insights into the experiences of pediatric nurses during the COVID-19 pandemic. The findings highlight the importance of giving nurses adequate support to cope with the demands of their jobs during a crisis. Furthermore, it emphasizes the need to meet their needs and expectations to maintain a stable nursing workforce. Future research can build on this survey's findings to examine the long-term effects of the pandemic on the mental health and well-being of nurses.

Discussion

Our study showed that 40 % of participants in this research. 48 % of the participants in this research had depression or anxiety due to working in a hospital setting during the COVID-19 epidemic. Notably, a study revealed a greater incidence of those with

psychological symptoms, including anxiety, sleeplessness, irritability, tension, and mood swings [12]. The ability to endure or recover rapidly from challenges is a trait shared by nurses with organizational and social support. Having outstanding managers and leaders in hospitals may be one method of conquering anxiety and stress. For instance, nursing personnel with adequate administrative and social support were more likely to report COVID-19-related anxiety rates that were lower [13].

We demonstrated in our research that administrative assistance was a crucial element in reducing stress and anxiety. Less job experience and testing positive for COVID-19 was the other factor linked to stress and anxiety in our research. Notably, the study revealed that the prevalence of fear, sadness, and sleep disruption among nurses during COVID-19 was 37 % (95 % CI 32-41), 35 % (95 % CI 31-39), and 43 % (95 % CI 36-50), respectively. They concluded that around one-third of the nurses who worked during the COVID-19 epidemic had psychological problems [14]. According to research, the most excellent rates of stress, anxiety, and depression among healthcare professionals increased to 67.55 %, 55.89 %, and 62.99 %, respectively, during COVID-19 [15].

As a result, nurses in the Kingdom of Saudi Arabia were exposed to psychological elements often related to COVID-19. This has led to a 53 % increase in job satisfaction unrelated to the workplace. Greater occupational stratification is probably recorded in non-Saudi countries. The youngest age group is another independent risk factor; compared to the highest age group > 40 years, being 30 was associated with 0.3 odds of being dissatisfied (i.e., less pleased), $p = (0.04)$. Given the COVID-19-related tension and anxiety, work satisfaction is projected to decline if administrative help is offered [16].

Unfortunately, neither healthcare nor diverse commercial organizations have given work happiness the serious attention it deserves. Research conducted in EGYPT discovered a strong association between the gender of nurses and parameters relating to the workplace environment, workload, and job satisfaction, with p -values of 0.004 and 0.040, respectively. Additionally, there was a statistically significant relationship between a nurse's prior training, educational background, and work satisfaction [17]. No correlation between psychological discomfort and working as a front-line healthcare practitioner was discovered in a comprehensive review published in 2022, which included 25 research from 12 countries. Importantly, the review indicated that the COVID-19 pandemic significantly negatively impacted nursing workers' mental health, manifesting sadness, anxiety, and other mental issues [18].

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Institutional commitment to its employees is essential. Job Satisfaction of Allied Health Faculty: Factors Job Satisfaction of Allied Health Faculty: Factors Organisational assistance, such as providing equipment and training for healthcare professionals on managing stress, may reduce anxiety and safeguard mental health. The institutional commitment to identifying job satisfaction and dissatisfaction will facilitate positive changes in the educational environment [19].

A persistent nursing shortage in Saudi Arabia compels firms to hire nurses from various countries. Consequently, a diverse workforce is produced. The multicultural workplace environment must be the main focus since it wasn't analyzed in foreign research. This is still being determined if alternative dynamics and interactions between employment outcomes and the practice environment were indicated by cultural diversity in Saudi hospitals. More research is required to determine if the multicultural workforce has a beneficial or detrimental influence on a nursing career in Saudi Arabia. In our study, more than 50 % of participants were of Asian heritage, while 35 % were of Arab descent.

Our research has several limitations. The study's results may only reflect one site, and the sample size makes it difficult to extrapolate to the Kingdom of Saudi Arabia. Our research, however, is unique in that it was possible to gauge pediatric nurses' anxiety and work satisfaction.

Conclusion

This study found that approximately half of the pediatric nurses working during the COVID-19 pandemic in our institution were suffering from some psychological symptoms. This highlighted the importance of providing intensive support strategies to reduce the psychological impact of the COVID-19 pandemic among healthcare workers. Emergency plans must be prepared to support health workers during difficult situations. Despite COVID-19 pandemic, Job satisfaction was found in more than half of the population in this sample. This highlights the importance of providing comprehensive support strategies to reduce the psychological impact of the COVID-19 outbreak among nurses under pandemic conditions. A further longitudinal study is needed to distinguish psychological symptoms during and after infectious disease outbreaks.

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