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The Effects of Social Support, Organizational Support, and Resilience on the Physical and Mental Symptoms of the Nurses' Anxiety

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Abstract

Introduction: Since nurses have direct contact with patients, they often experience anxiety during their work, and efforts should be made to reduce this anxiety. Therefore, this study aimed to investigate the effects of social support, organizational support, and resilience on the physical and mental symptoms of nurses' anxiety in Hajar Hospital of Shahrekord during 2021-2022.

Methods: The current study method is practical regarding purpose and a descriptive survey in data collection. The statistical population of 330 nurses of Hajar Hospital of Shahrekord determined the sample size by Cochran's formula (178 people) and available methods. The data were collected through standard questionnaires, including a resilience questionnaire by Connor and Davidson (2003), a social support questionnaire by Vaux et al. (1986), an organizational support questionnaire by Akgunduz et al. (2018), and an anxiety questionnaire by Alipour et al. (2020). The analysis method used in this research was the structural equation modeling technique with SmartPLS4 software.

Results: The findings of the research showed that organizational support has a negative and significant effect on mental and physical symptoms of anxiety among nurses. Also, nurses' resilience has a negative and significant effect on mental and physical symptoms of anxiety among nurses. Also, social support has a negative and significant effect on mental and physical symptoms of anxiety among nurses.

Conclusion: Constant exposure to anxiety has negative consequences on the physical and mental health of nurses and should reduce nurses' anxiety by taking practices such as increasing nurses' resilience, organizational support, and social support.

Keywords: Social support, Organizational support, Resilience, Anxiety

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Introduction

Anxiety among people has created many challenges for psychologists, psychiatrists, and behavioral scientists around the world. Among all physical and mental disorders, anxiety and depression are the most common (1). Anxiety is defined as "a state of uneasiness or apprehension caused by the event or situation anticipation of a real or perceived threat" (2); in other words, anxiety includes feelings of uncertainty and helplessness and is defined as a scattered and vague feeling of unpleasantness and fear (3). Outbreaks of epidemic diseases such as COVID-19, MERS, and SARS provoke anxiety, especially among healthcare workers who are directly involved in the management of these patients (4). In addition, the unpredictable conditions of daily work, urgent tasks, and emergency patient care create highly stressful environments for these medical professionals, who may experience anxiety and other psychological problems, and epidemiologic studies worldwide have shown that about 33-50% of healthcare workers have symptoms of anxiety (5). In Egypt, a study found that 21% of healthcare workers reported severe anxiety. Also, a study conducted in Poland showed that 34% of healthcare workers suffered from clinical generalized anxiety disorder (6). The study by Luo et al. (2020) showed that among healthcare workers, nurses experienced the highest level of anxiety and the highest prevalence of anxiety, which ranged from 15% to 92% (7).

While a low level of anxiety helps motivate

and excite a person, constant exposure to anxiety may have negative consequences on physical and mental health (4). In addition, unmanaged anxiety may lead to long-term effects on nurses' work performance and job satisfaction, leading to intention to quit, frequent absenteeism, and job turnover (8, 9). Also, mental health disorders in healthcare workers can jeopardize service quality, patient satisfaction, and safety, as well as reduce hospital productivity and clinical outcomes and damage the institution's reputation (1). Therefore, taking necessary measures to reduce anxiety among nurses may prevent its adverse consequences, and such measures are vital to maintaining a committed nursing workforce.

In this regard, positive psychology acknowledges that people have inherent potential for growth, satisfaction, and well-being, and the lack of these capacities may lead to mental disorders (10). Therefore, researchers are increasingly using the perspective of positive psychology in dealing with mental health issues (11). Meanwhile, perceived social support is an important psychological resource for managing stressful events. Social support in the organization is an important source of support, which is defined as employees' general perception of the extent to which friends, family, and colleagues value their participation and care for their comfort (12). In other words, social support is a network of family, friends, and colleagues providing psychological and tangible resources to cope with stressful situations and daily problems (13). A study by Dong et al. showed that healthcare workers who lack perceived social support are unable to cope with stressful work events, thereby increasing the risk of anxiety and depression among them (14). Also, a study by Yu and Gui showed that the risk of developing anxiety among medical professionals and healthcare workers is reduced by a strong perception of social support (15). Therefore, adequate social support is critical to help healthcare workers manage stressful events, including emergencies, catastrophes, and infectious disease outbreaks.

One of the other factors that can reduce the physical and mental symptoms of anxiety among nurses in stressful situations such as epidemics is perceived organizational support. The perceived organizational support is people's generalized belief that the organization values its members' cooperation, assistance, and support and is

concerned about their happiness and future (12). Managers supporting the mental health of nurses Through evidence-based practices, supportive organizational policies, and providing a safe and secure work environment play a critical role in addressing nurses' anxiety or fear during pandemics such as COVID-19 (16). Evidence has shown a positive association between higher levels of organizational support and positive outcomes in nurses (e.g., work performance, job satisfaction, innovative behaviors) and patients (e.g., patient satisfaction) (17, 18). Evidence has also shown that higher levels of organizational support may reduce the impact of workplace stressors and may act as a protective factor against stress and anxiety related to disasters and other emerging infectious diseases (19, 20). Thus, higher levels of organizational support are associated with lower anxiety levels (21).

One of the other factors that can reduce the physical and mental symptoms of anxiety among nurses is the resilience of nurses. Resilience is the capacity to bounce back from sustained and ongoing difficulty and the ability to repair oneself (22, 23). Also, resilience refers to the means and ability to deal with adverse conditions (3). It gives people the strength to face problems correctly, overcome difficulties by moving with the flow of life, and cope with unexpected situations such as crises and diseases (22). Therefore, personal resilience may help nurses cope effectively with the stress caused by problems and epidemic diseases such as COVID-19 (24). Taherinia et al. showed that the mechanism and structure of resilience in reducing anxiety are such that the main components of resilience, such as self-confidence, optimism, personal competence, trust in instincts, positive acceptance of change, control, and spiritual influences, do not allow anxiety to occur when faced with stressful situations (3).

Therefore, given that the COVID-19 pandemic can cause anxiety for nurses, this study attempts to determine whether social support, organizational support, and personal resilience are vital factors of protection against adversity, stress, and anxiety in nurses, which allows them to maintain their well-being and mental health and since, by analyzing the theoretical gap and because so far no research in the country and abroad have investigated the effect of these variables at the same time, It is necessary to conduct this research among the

nurses of Hajar Hospital of Shahrekord who are one of the main assets of the hospital and act as the first point of contact with patients and reduce their anxiety play a vital role in improving the health of patients and their emotional support. Therefore, the present study aims to investigate the effect of social support, organizational support, and resilience on anxiety's physical and mental symptoms in nurses of Hajar Hospital of Shahrekord. The relationships between the variables can be seen in Figure 1.

Materials and Methods

The present study was conducted to solve existing problems. Therefore, it is part of applied research using a descriptive survey method. The statistical population of this study included 330 nurses working in the inpatient wards of patients with COVID-19 in Hajar Hospital of Shahrekord in the west of Iran during the years 2021-2022. In this study, available sampling was used, and nurses unwilling to cooperate due to work pressure or any other reason were excluded. Also, to increase the homogeneity of the study population, nurses were matched in terms of gender and work experience in the inpatient wards of patients with COVID-19. Finally, the sample size was 178 using Cochran's formula.

$$n = \frac{Nz^2p(1-p)}{(N-1)d^2 + z^2p(1-p)} =$$

$$\frac{330 * 1.96^2 * .5 * .5}{(329 * 0.05^2) + (1.96^2 * .5 * .5)} = 177/762$$

Measuring Tool

The method of data collection in this research was standard questionnaires. The standard resilience questionnaire was used as a reference to determine the resilience level. This questionnaire consists of 25 items designed by Connor and Davidson (25), and nine items that measured resilience in the workplace and were closest to the research objectives were selected. For measuring the physical and mental symptoms of anxiety, the questionnaire of the COVID-19 anxiety scale by Alipour et al. (26) was used as a reference questionnaire, with five items used for physical symptoms of anxiety and five items used for mental symptoms of anxiety. A questionnaire by Vaux et al. (27) was used as a reference questionnaire to measure the level of social support, and it contained 11 items. A questionnaire by Akgunduz et al. (28) was used as a reference questionnaire containing eight items to measure the level of organizational support. This research graded the questionnaires based on a five-point Likert scale from completely disagree (score 1) to completely agree (score 5).

Reliability and Validity

In this study, to examine the content validity through the CVR and CVI forms, with the help of ten experts, including academic experts, organizational experts, and several subjects, the questionnaire's content was examined in terms of additional questions or corrections to questions. The CVI form showed that all items were in good condition in terms of simplicity, clarity, and
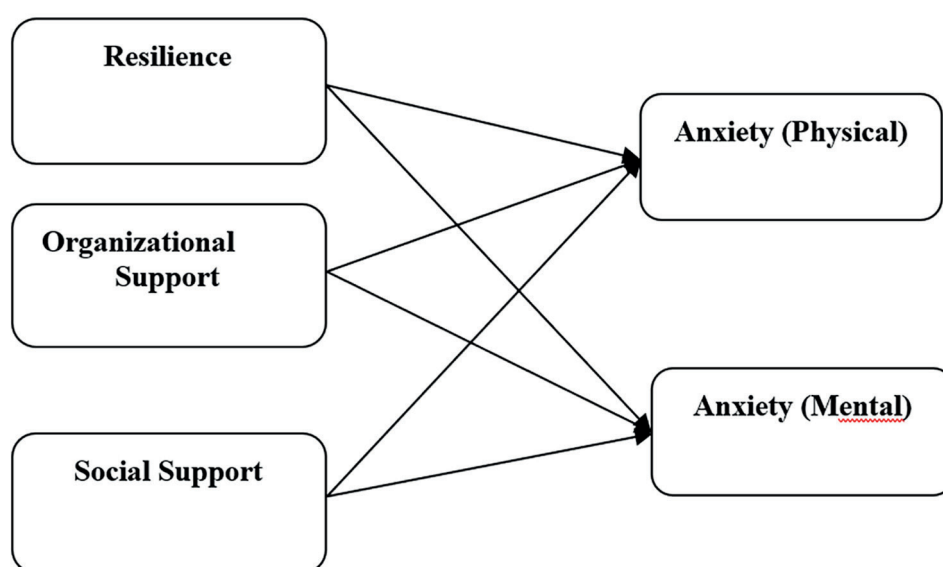

Figure 1: Conceptual model of research

relevance, and the level of this coefficient for all items was higher than 0.79. Also, considering that the CVR value for all items was higher than 0.62, no questions needed to be deleted.

Cronbach's alpha coefficient and composite reliability were also used to check the validity of the measurement model of the divergent and convergent validity index and factor loadings, and the reliability of the research variables was checked, as presented in Table 1.

According to the result of Table 1, Cronbach's alpha coefficient and combined reliability for all variables are more than 0.7, so the reliability of the questionnaires is suitable. Also, all the Average variance extracted values (AVE) are higher than 0.5, so the convergent validity is confirmed.

It can be seen in Table 2 that all values on the main diagonal are greater than the corresponding row and column, so the condition of divergent validity was confirmed. For the factor loading index, the factor loading of the items should be greater than 0.4; as shown in Figure 2, the factor loading results for all items are greater than 0.4 and are within acceptable limits.

Results

This research uses structural equation modeling techniques with the partial least squares method and SmartPLS4 software to investigate the existing relationships between the research variables presented in the conceptual model. The descriptive statistics findings on the research sample's demographic characteristics are shown in Table 3.

As mentioned, the structural equation modeling technique was used to test the hypotheses. Accordingly, the results are shown in two standard and significant modes in Figures 2 and 3.

To fit the developed model from the R^2 criterion, the significance coefficients of t and the fit of the general model were used.

Table 1: Reliability test of measuring instruments

Variable	Cronbach's alpha	Composite reliability	AVE
Anxiety (mental)	0.801	0.863	0.557
Anxiety (physical)	0.844	0.892	0.629
Organizational Support	0.883	0.907	0.549
Resilience	0.931	0.943	0.648
Social Support	0.915	0.928	0.540

Table 2: Fornell-Larcker criterion analysis

	Anxiety (mental)	Anxiety (physical)	Organizational Support	Resilience	Social Support
Anxiety (mental)	0.747				
Anxiety (physical)	0.602	0.793			
Organizational Support	-0.691	-0.633	0.741		
Resilience	-0.711	-0.603	0.607	0.805	
Social Support	-0.733	-0.631	0.683	0.625	0.735

Table 3: Descriptive statistics of demographic characteristics of the sample

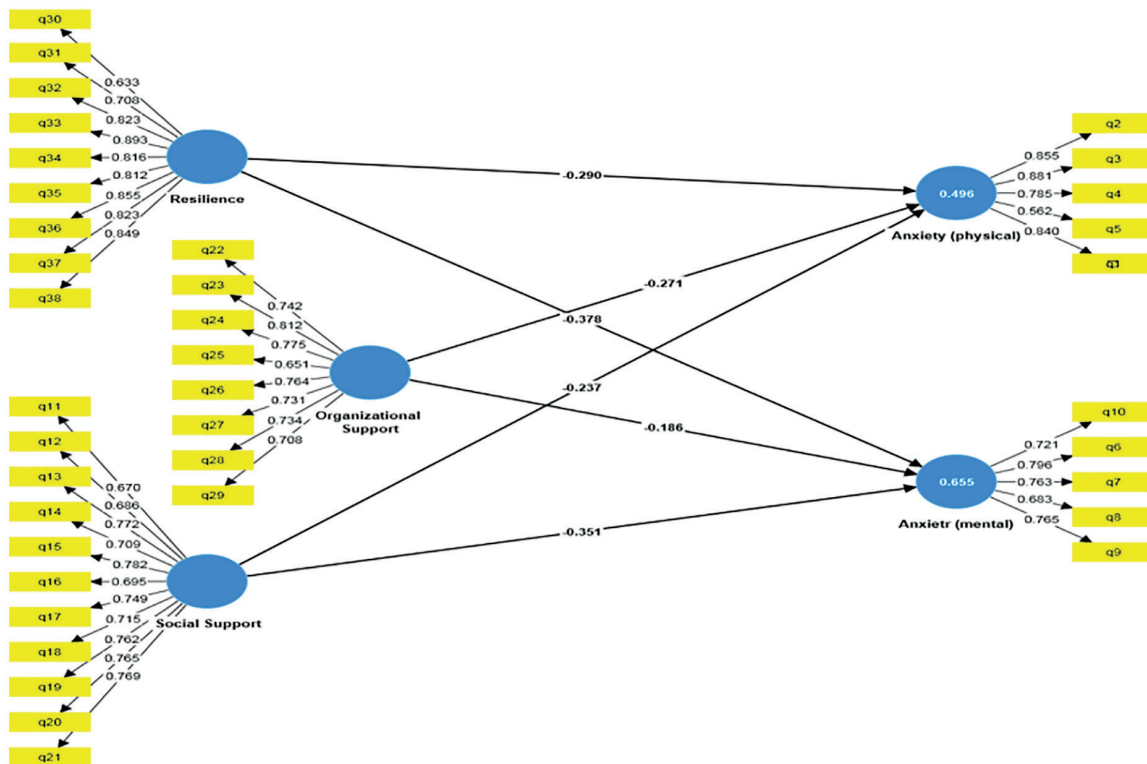| Parameter		Frequency	Percentage
Gender	Male	48	27
	Female	130	73
Age	<30	53	29.8
	30-40	83	46.6
	41-50	37	20.8
	>50	5	2.8
Education level	Associate and below	10	5.6
	Bachelor	149	83.7
	Master's	19	10.7
Work experience	<10	61	34.3
	10-20	68	38.2
	21-30	46	25.8
	>30	3	1.7

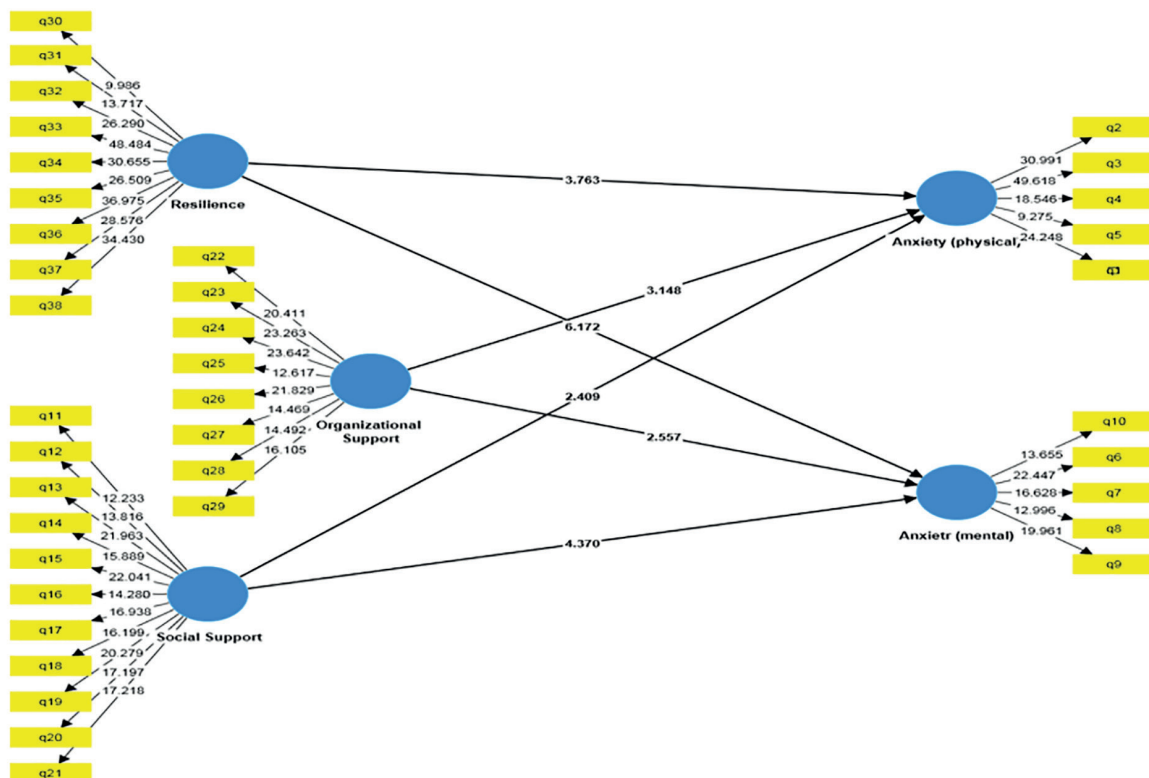**Figure 2:** The structural model of corrected path coefficients

Figure 3: The structural model of significant coefficients

As seen in Figure 2, the coefficient of determination is suitable for endogenous variables, and the significant coefficients of t are also suitable for Figure 3. To evaluate the overall fit of the model, which controls both measurement and structural model parts, the goodness of fit (GOF) criterion was used based on the following formula.

$$Gof = \sqrt{communalities \times \overline{R^2}}$$

Table 4: The goodness of fit criterion of the research model

Variable	Anxiety (mental)	Anxiety (physical)	Organizational Support	Resilience	Social Support
R2 Criterion	0.496	0.655	-	-	-
Communality Values	0.337	0.449	0.411	0.570	0.462
GO	0.506				

Table 5: Result of hypothesis testing

	Path Coefficients	T Statistics	P values	Results
Organizational Support -> Anxiety (mental)	-0.186	2.557	0.011	Supported
Organizational Support -> Anxiety (physical)	-0.271	3.148	0.002	Supported
Resilience -> Anxiety (mental)	-0.378	6.172	0.000	Supported
Resilience -> Anxiety (physical)	-0.290	3.763	0.000	Supported
Social Support -> Anxiety (mental)	-0.351	4.370	0.000	Supported
Social Support -> Anxiety (physical)	-0.237	2.409	0.016	Supported

As shown in Table 4, the value of GOF was 0.506, which is higher than 0.36 and indicates the strong suitability of the model (29).

As mentioned, the structural equation modeling technique has been used to test the hypotheses of this research. Based on this, the results in two standard and significant modes are shown in Figures 2 and 3, and Table 4 summarizes the results of hypothesis testing.

According to the results of Table 5, the significant number at the 95% confidence level is higher than 1.96 for all hypotheses, so all hypotheses have been confirmed.

Discussion

The unpredictable conditions of daily work, essential tasks, and patient care create a very stressful environment for nurses, who may experience anxiety and other psychological problems. Therefore, this study attempted to identify factors that reduce nurses' anxiety. The anxiety score of the participating nurses in this research showed that the nurses of Hajar Hospital of Shahrekord were somewhat anxious, and the mental symptoms of anxiety among these nurses were more than the physical symptoms. Also, in this research, it was found that the resilience of nurses is above the average level. Also, the perceived social support, including the support of family, friends, and other community members, was above the average level, and the perceived organizational support was above the average level. Also, in this study, the responses of nurses to the questionnaire items showed that sleep disturbance and disturbance in daily activities among them were more than the average; however, in general, according to the increasing trend of overcoming the disease of COVID-19 the treatment care staff, the anxiety of nurses in this field was lower than the average level.

The research findings showed that organizational support has a negative and significant effect on mental symptoms of anxiety among nurses of Hajar Hospital of Shahrekord. It is concluded that, in general, the support of the management and the organization to the nurses during stressful and tense situations such as the COVID-19 disease has made the nurses feel more secure and supported. As a result, the mental symptoms of anxiety among the nurses of Hajar Hospital of Shahrekord decreased; these results are consistent with the research results of Sarabi et al. (30). Karatepe et al. (31). Also, the research findings showed that organizational support has a negative and significant effect on the physical symptoms of anxiety among the nurses of Hajar Hospital of Shahrekord. It is concluded that, in general, management and organizational support for nurses during stressful situations reduces physical symptoms of anxiety, such as anorexia and headache, among nurses of Hajar Hospital of Shahrekord; these results are consistent with the research results of Dingens (32).

Also, the research findings showed that nurses' resilience has a negative and significant effect on mental symptoms of anxiety among nurses of Hajar Hospital of Shahrekord. It is concluded that, in general, it is inferred that when nurses have higher resilience, they can adapt to stressful and tense situations such as the COVID-19 disease and show the necessary flexibility in these conditions and the face of this disease, they did not lose their focus and did not get discouraged and believed in their ability, and these factors

caused the mental symptoms of anxiety such as worry and disruption of daily activities to decrease among the nurses of Hajar Hospital of Shahrekord, these results are consistent with the research results of Ran et al. (33) and Petzold et al. (34). Also, the research findings showed that nurses' resilience has a negative and significant effect on the physical symptoms of anxiety among the nurses of Hajar Hospital of Shahrekord. It is concluded that, in general, it is inferred that when nurses have higher resilience, they can adapt to stressful and tense situations such as the COVID-19 disease and believe in their ability. These factors have caused physical symptoms of anxiety, such as headache and heart palpitations, among the nurses of Hajar Hospital of Shahrekord, which should be reduced; these results are consistent with the research results of Barzilay et al. (35) and Setiawati et al. (36).

Also, the research findings showed that social support has a negative and significant effect on mental symptoms of anxiety among nurses of Hajar Hospital of Shahrekord. It is concluded that, in general, it is inferred that when nurses feel that they are supported by family, friends, and other members of society in stressful and tense situations such as COVID-19, mental symptoms of anxiety such as worry and disruption of daily activities in between The nurses of Hajar Hospital of Shahrekord be reduced, these results are consistent with the research results of Stanton & Campbell (37). Also, the research findings showed that social support has a negative and significant effect on the physical symptoms of anxiety among the nurses of Hajar Hospital of Shahrekord. It is concluded that, in general, it is concluded that when nurses feel that they are supported by family, friends, and other members of society in stressful and tense situations such as COVID-19, the physical symptoms of anxiety such as headache and heart palpitations among nurses of Hajar Hospital of Shahrekord will decrease, these results are consistent with the research results of Ali et al. (38) and Zyrianova et al. (39).

The research findings also showed that individual resilience has a more substantial effect on reducing the mental symptoms of nurses' anxiety compared to organizational support. In addition, the role of social support in reducing the mental symptoms of nurses' anxiety is more remarkable than organizational support.

In terms of reducing the physical symptoms of nurses' anxiety, individual resilience has a more substantial effect than organizational support and social support. These results can be analyzed so that nurses at Hajar Hospital of Shahrekord can better resist and overcome epidemics such as COVID-19, which have caused anxiety among nurses, by improving their resilience. Therefore, resilience can have a more substantial effect than social support and organizational support on reducing nurses' anxiety and guaranteeing their mental health. Thus, it positively affects nurses' work performance and job satisfaction, reduces frequent absenteeism and job leaving, and improves the quality of services and patient satisfaction.

Conclusion

This research investigated how social support, organizational support, and nurses' resilience reduce physical and mental symptoms of nurses' anxiety. Hence, social support, including support from colleagues, friends, and families, can help nurses feel safe and reduce their fear during a pandemic. Therefore, it is suggested that, since higher levels of social support are significantly related to positive work outcomes (such as work performance and job satisfaction) and physical and mental health in nurses, it is essential that practices such as support and facilitation of individuals family; encouragement and praise from family, friends and community members; the creation of online support groups or social associations should be considered with the aim of improving this element in the workplace, and despite this social support, the psychological pressure on nurses has decreased. They are sure that others will be there to help them when needed. They will support each other emotionally and share their experiences and feelings, thus increasing self-confidence and confidence to face stressful situations among nurses and reducing anxiety.

One of the other factors that reduced nurses' anxiety in this study was perceived organizational support. Therefore, it is suggested that the managers of Hajar Hospital support nurses' mental health and psychological well-being by sharing work experiences, listening to nurses' concerns, and providing empathetic support. Also, managers should provide adequate organizational support by implementing a safe work environment, providing complete and

quality equipment to prevent infection, providing accurate and timely information about the disease, and implementing training related to epidemics. Also, hospital managers can provide support such as providing an environment where nurses feel safe and supported, recognizing and honoring their efforts, creating positive relationships with the management team, providing flexible working hours, encouraging enough rest, and establishing a balance between work and personal life of nurses to reduce anxiety among them. One of the other factors that reduced nurses' anxiety in this research was nurses' resilience, and the results of the study showed that nurses who had high levels of resilience had a significantly reduced risk of anxiety. Resilient people are emotionally calm and able to deal with adverse situations. Strengthening this personal resource through organizational practices is critical because resilience affects nurses' work performance, health, and overall well-being. Therefore, it is suggested to the hospital managers, especially the human resources management unit, to take the necessary practices to increase the resilience of nurses, considering that resilience is not only inherent and that a person can better interact with the environment through education, learning, practice and experience, and face hardships. Repair himself mai, maintain his mental health against problems, and increase his personal capacity and flexibility against problems. Therefore, the human resources management unit in Hajar Hospital of Shahrekord should pay more attention to the mentioned solutions and implement the necessary practices in nurses' training programs to strengthen their resilience.

Limitations and Future Calls

There were some limitations in the implementation of this research. For example, in this research, data was collected using standard questionnaires, and nurses answered the questionnaires in the form of self-report. Therefore, their answers may not reflect the actual situation, depending on the circumstances. Also, the fatigue and boredom of nurses due to the work pressure may have caused them to be careless in filling out the questionnaires. Nevertheless, as much as possible, questionnaires were made available to nurses in more suitable conditions. Therefore, according to the mentioned limitations, developing a research model for future research is suggested

by conducting interviews with nurses of Hajar Hospital and using a qualitative approach of grounded theory to identify other variables that reduce the physical and mental symptoms of nurses' anxiety.

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