

The Relationship between Resilience and Human Dignity in Patients With COVID- 19

Hakimeh Sabeghi¹, Seyyed Abolfazl Vagharseyyedin², Mohammad Zarei³,
Negar Shahkarami⁴, Esmail Kavi^{5*}

Abstract

Background: One of the most important ethical requirements of the medical profession is to maintain the human dignity of patients. COVID-19 pandemic imposes a lot of stress on patients, which can be an obstacle to maintain the patients' dignity.

Aim: The present study aimed to investigate the relationship between resilience and human dignity in patients with COVID -19.

Method: This cross-sectional study was performed in 2021 on 180 patients admitted to COVID wards in Birjand, Iran. Data were collected using the Patient Dignity Inventory (PDI) and Conner-Davidson Resilience Scale (CD-RIS). Data were analyzed by SPSS software (version 20) and descriptive and inferential statistics. $P < 0.05$ was considered statistically significant.

Results: The mean overall human dignity score of the patients was 51.41 ± 19.56 . The women reported a poorer perception of dignity and its distress symptom and social support dimensions than men ($p < 0.05$). The mean overall resilience score of the patients was 65.95 ± 12.96 . In control dimension, the mean resilience scores of men was significantly higher than women ($p < 0.05$). Inverse relationship was found between resilience and human dignity in patients COVID-19 ($p < 0.001$).

Implications for Practice: The resilience is a protective factor for the patients' dignity. The preservation of dignity in patients care process during COVID-19 pandemic and the use of effective methods to improve their resilience can be helpful to overcome these stressful situations.

Keywords: COVID-19, Dignity, Pandemics, Psychological resilience

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1. Assistant Professor, Department of Nursing, Faculty of Nursing and Midwifery, Birjand University of Medical Sciences, Birjand, Iran.
 2. Associate Professor, Department of Nursing, Faculty of Nursing and Midwifery, Birjand University of Medical Sciences, Birjand, Iran
 3. Infectious Diseases Nurse, Valiasr Hospital, Birjand University of Medical Sciences, Birjand, Iran
 4. Instructor of Operating Room, School of Allied Medical Sciences, Fasa University of Medical Sciences, Fasa, Iran
 5. Instructor of Operating Room, Department of operation room/ Anesthesia, School of Nursing, Larestan University of Medical Sciences, Lar, Iran

* Corresponding author, Email: Kavi.esmaeil@gmail.com

Introduction

One of the most important ethical requirements of the medical profession is to maintain patients' dignity, which historically goes back to the advice of Socrates and his emphasis on respect and dignity preservation of the patient (1). Human dignity is a complex, ambiguous and multifaceted concept associated with respect for patients' wishes, privacy, self-esteem and similar issues (2, 3). In fact, dignity is an intrinsic value which human beings have through being human. This value is manifested in the individual and in relation to others (4, 5). One of the major factors seriously threatening the human dignity and makes them prone to loss of dignity is a disorder in health and disease. Patients feel that they are at risk of losing dignity from admission and hospitalization until discharge (6). Illness, disability, hospitalization, reduced power and choice, reduced privacy, and therapeutic procedures have negative effects on patients' dignity and consequently, on body, soul, and mood of the patients and impose stress to them (5).

The World Health Organization reported the global outbreak of the SARS-CoV-2 respiratory virus (COVID-19) as a pandemic in March 2020 (7). The unpredictability and uncertainty of the disease from various aspects of epidemiology and effective methods of treatment on the one hand and the high death rate on the other hand caused a lot of psychological stress for patients (8-10). In this regard, the results of the study in Korea (2021) showed that patients with COVID-19 suffer more psychosocial problems caused by the disease than physical problems; they were shocked and upset that they had been completely deprived of their privacy during the disinfection process (11). Buonaccorso et al. (2021) also reported several barriers for maintaining the dignity of COVID-19 patients, such as the use of personal protective equipment by physicians and nurses, the nature of the symptoms, and patient's isolation (12).

Resilience is one of the factors which plays a decisive role in the reaction of stressful people and can help them more effectively cope with stressors (13). Resilience is described as the ability to withstand obstacles, positive adaptation and tolerance of adversity (14). In addition, in various texts, resilience is also described as the ability of a person to protect his mental health in the face of objective problems and adverse conditions (9, 15). As a result, improving resilience plays an important role in improving patients' mental health. Lee et al. (2016) reported that effective factors in reducing resilience included various privations such as reduced interactions following the loss of others, lack of physical health, social support and human dignity (16). COVID-19 pandemic can have long-term adverse consequences for patients and affect their resilience (17). In this regard, Zhang et al. stated that improving resilience seems to play an important role in improving patients' mental health (9).

The patient's dignity is severely affected during the COVID-19 pandemic due to the high number of hospitalized patients, crowded wards, lack of facilities and the contagious nature of the disease. On the other hand, respecting the patients' dignity can play an important role to maintain the mental and psychological health of the patients. Therefore, considering the importance of respecting the human dignity of patients with COVID-19 and its effect on improving the mental and psychological health of patients and limited studies in this area, this study was conducted aimed to investigate the relationship between resilience and human dignity in patients with COVID-19 in Iran.

Methods

This cross-sectional analytical study was performed in 2021 on 180 patients with COVID-19 admitted to the COVID wards of Birjand University of Medical Sciences. The sampling was performed through convenience sampling. According to the views of the infectious disease physician, these patients did not need to be admitted to the ICU at the time of sampling. Notably, sampling was performed in the fall of 2021, when there was the highest rate of COVID delta patients' hospitalization in Iran. Inclusion criteria were: willingness to complete the questionnaires and ability to speak Persian and no mental problems. Unwillingness to continue cooperation and withdrawal from the research were also as the exclusion criteria. To calculate the sample size, a pilot study was conducted with 20 patients with inclusion criteria. According to the correlation coefficient between the dignity and resilience in this pilot study ($r=0.24$), and $\alpha = 0.05$, $\beta = 0.90$, and $\omega = 0.24$, the sample size was determined as 180 patients.

Data collection tools were the Patient Dignity Inventory Questionnaire (PDI) and Conner-Davidson Resilience Scale (CD-RIS). The PDI questionnaire was designed by Chochinov et al. (2008) to measure the sources of discomfort related to patient's dignity (18). Its validity and reliability have been confirmed in the Borhani's study (2014) and has been translated into Persian (2). This

questionnaire includes 5 factors and 25 items which are distress symptom (items 3, 5-9), peace of mind (items 15-17), dependency (items 1, 2, 20), social support (items 21, 22-25), and existential distress (items 4, 11-14, 18). According to the number of items in the questionnaire (25 items) and the answers on the 5-point Likert scale, the total score is between 25 and 125 and the average score is between 1 and 5. Scoring was as follows: no problem, a slight problem, a problem, a major problem and an overwhelming problem in the Borhani's study (2). The items of PDI have a negative impact, so higher scores mean more problems with human dignity (18).

The present study focused on resilience as a trait-like ability to deal with adversity, as measured by the Conner-Davidson Scale (CD-RIS). This questionnaire consists of 25 items which is scored based on a 5-point Likert scale; therefore, the minimum score is 0 and the maximum is 100. The cut-off point of this questionnaire is 50. In other words, a score higher than 50 indicates individuals with resilience, and the higher score indicates the higher intensity of resilience (19). The reliability of the Persian version of this questionnaire was confirmed in the study by Samani et al. in 2007 (20).

Data were analyzed by SPSS software (version 20). Descriptive statistics (frequency distribution, mean, standard deviation) were used to describe and categorize the data, and inferential statistics were used to test the hypothesis. The normality of the data was assessed by Kolmogorov–Smirnov test. Responses to the dignity and resilience scale and their dimensions were not normally distributed. Accordingly, Mann Whitney U test and Kruskal Wallis test were used to compare the categorical variables with two levels or with more than two categorical variables, respectively. If Kruskal-Wallis test was significant, then post-hoc pairwise comparisons were performed using Mann–Whitney U test with Bonferroni correction. The predictability of the independent variables on resilience was evaluated by stepwise multiple regression. Dummy coding was conducted for the categorical variables including age, marital status, and education level. Before regression analysis, assumptions of normality such as linearity, residuals normality, and independence of residuals were assessed. In all tests, a confidence level of 95% and a significance level of 0.05 were considered.

Results

A total of 180 patients with COVID-19 admitted to coronavirus disease ward of Birjand University of Medical Sciences were studied. Most participants (55%) were female and in the age range of 20-40 years. The mean hospital stay was 1.94 ± 0.78 days. In terms of underlying diseases, 8.3% of patients reported a history of diabetes, 6.1% hypertension, 5.6% heart disease, 5% respiratory disease and 1.1% kidney disease. Other demographic characteristics of participants were displayed in Table 1.

Table 1. Demographic characteristics of the participants (N=180)

variable		n (%)
Age (Year)	20-40	91(50.55)
	41-60	57 (31.66)
	> 60	32 (17.79)
Gender	Female	99(55.00)
	Male	81 (45.00)
Marital status	Married	128 (71.11)
	Single	32 (17.77)
	Divorced/widow	20 (11.12)
Educational level	Illiterate/primary	64 (35.55)
	diploma	43 (23.88)
	bachelor and higher	73 (40.57)
Job status	Self-employee	48 (26.66)
	Employee/retired	60 (33.33)
	Unemployed/housewife	72 (40.01)
Underlying disease	Yes	50 (27.8)
	No	130 (72.2)

The mean overall human dignity score of the patients was 51.41 ± 19.56 . Comparison of the mean score of human dignity and resilience according to demographic characteristics was presented in Table 2. The mean score of dignity in women was significantly higher than men (54.20 ± 20.39 vs. 48.01 ± 18.12 , $Z = -2.04$, $p < 0.05$). The women reported a higher mean score of distress symptoms dimension than men (13.42 ± 5.35 vs. 11.77 ± 4.41 ; $Z = -2.06$, $p < 0.05$). Also, the mean score of the social support dimension was significantly higher in women than men (10.89 ± 4.68 vs. 9.17 ± 3.95 ; $Z = -2.41$, $p < 0.05$).

The mean overall resilience score of the patients was 65.95 ± 12.96 . The mean score of the perception of individual competence was significantly different according to the age of the patients ($\chi^2 = 12.08$, $p < 0.002$). The age group of 20-40 years had a significantly lower mean resilience score than the age group of 41-60 years (22.45 ± 4.70 vs. 20.05 ± 3.60 ; $Z = -3.41$, $p < 0.01$). In control dimension, the mean resilience scores of men was significantly higher than women (8.03 ± 2.19 vs. 7.25 ± 1.97 ; $Z = -2.45$, $p < 0.05$). There was significant difference between different educational groups in terms of mean scores of the individual competency dimension ($\chi^2 = 13.21$, $p < 0.001$). The findings showed that illiterate individuals and those with a primary degree reported significantly higher individual competency scores than those with a diploma in this area (21.90 ± 4.78 vs. 19.72 ± 4.15 ; $\chi^2 = Z = -2.60$, $p < 0.01$). Also, patients with a diploma degree reported lower individual competence than those with a bachelor's or higher degree (19.72 ± 4.15 vs. 22.64 ± 4.64 ; $Z = -3.58$, $p < 0.001$).

There was a significant and inverse relationship between resilience score and dignity ($r = -0.38$, $p < 0.001$). The resilient patients reported higher dignity. The correlation of matrix of the dignity and resilience and their components were presented in Table 3.

Table 2. Comparison of the mean score of human dignity and resilience according to demographic characteristics (N = 180)

Variable	N (%)	Dignity Med (IQR)	Resilience Med (IQR)
Age (Year)	20-40	91 (50.6)	49.00 (31.00-65.00)
	40-60	57 (31.7)	56.00 (31.00-66.00)
	> 60	32 (17.79)	53.00 (36.00-67.00)
	Test result*		$\chi^2 = 0.21$, $p = 0.898$
Gender	Female	99 (55.00)	55.00 (34.00-68.00)
	Male	81 (45.00)	29.00 (29.00-64.50)
	Test result**		$\chi^2 = -2.04$, $p = 0.041$
Marital Status	Married	128 (71.11)	50.50 (30.00-65.00)
	Single	32 (17.77)	56.50 (32.25-67.25)
	Divorced/widow	20 (11.12)	60.00 (45.00-68.00)
	Test Result**		$\chi^2 = 3.58$, $p = 0.167$
Education level	Illiterate/primary	64 (35.55)	54.00 (31.00-67.75)
	diploma	43 (23.88)	50.00 (31.00-65.00)
	bachelor and higher	73 (40.57)	52.00 (31.00-65.00)
	Test Result*		$Z = 0.23$, $p = 0.891$
Job status	Self-employee	48 (26.66)	51.00 (28.50-66.50)
	Employee/retired	60 (33.33)	52.00 (34.25-65.00)
	Unemployed/housewife	72 (40.01)	31.00 (31.00-66.75)
	Test Result*		$\chi^2 = 0.24$, $p = 0.886$
Underlying disease	Yes	50 (27.8)	53.00 (30.75-70.00)
	No	130 (72.2)	51.50 (31.00-65.00)
	Test Result**		$Z = -0.39$, $p = 0.692$

*Analyzed by the Mann-Whitney test

**Analyzed by the Kruskal-Wallis test

Table 3. Correlation matrix of the main study variables and their components

Variable	Distress Symptoms	Peace of mind	Dependence	Social support	Existential distress	Dignity	Spiritual effects	Perception of individual competence	Trust in individual instincts Tolerate negative emotions	Positive acceptance of change and secure relationships	Control	Resilience
Distress Symptoms	–	0.64*	0.72*	-0.28*	0.81*	0.90*	-0.33*	-0.26*	-0.31*	-0.39*	-0.29*	-0.37*
Peace of mind	–	–	0.6*	-0.24*	0.76*	0.82*	-0.34*	-0.32*	-0.16*	-0.30*	-0.28*	-0.32*
Dependence	–	–	–	-0.24*	0.79*	0.83*	-0.23*	-0.18*	-0.75*	-0.33*	-0.35*	-0.30*
Social support	–	–	–	–	-0.33*	-0.29*	0.50*	0.85*	0.50*	0.71*	0.70*	0.83*
Existential distress	–	–	–	–	–	0.93*	-0.37*	-0.33*	-0.26*	-0.44*	-0.31*	-0.40*
Dignity	–	–	–	–	–	–	-0.35*	-0.28*	-0.25*	-0.39*	-0.34*	-0.38*
Spiritual effects	–	–	–	–	–	–	–	0.45*	0.31*	0.58*	0.45*	0.65*
Perception of individual competence	–	–	–	–	–	–	–	–	0.57*	0.69*	0.47*	0.76*
Trust in individual instincts Tolerate negative emotions	–	–	–	–	–	–	–	–	–	0.61*	0.47*	0.76*
Positive acceptance of change and secure relationships	–	–	–	–	–	–	–	–	–	–	0.62*	0.88*
Control	–	–	–	–	–	–	–	–	–	–	–	0.72*
Resilience	–	–	–	–	–	–	–	–	–	–	–	–

*p<0.001

As illustrated in Table 4, variables influencing patients' resilience were identified as: dignity ($\beta = -0.38$, $p < 0.001$), marital status (single: $\beta = -0.20$, $p < 0.01$), and age (40-60 years: $\beta = -0.18$, $p < 0.01$). The explanatory power of the model (R^2) was 20 %. The predictability of the educational level and gender was not significant ($P > 0.05$).

Table 4. Factors predicting resilience (N=180)

Variables	B	SE	β	t	p
Constant	79.11	2.93		25.91	<0.001
Dignity	-0.24	0.04	-0.38	-5.50	<0.001
Marital status (single)	5.77	1.97	0.20	2.93	<0.01
Age (41-60 years)	-5.25	1.90	-0.18	-2.75	<0.01

R² = 0.21, Adj. R² = 0.20, F = 15.87, p < 0.001

Note: Marital status (reference: divorced/widow) and age (reference: > 60-year-old)

Discussion

The present study was performed aimed to investigate the level of respect for human dignity and resilience of patients with COVID-19 from their own perspective. The results of the present study showed that respect for patient's dignity was associated with few problems according to the PDI scale. An online qualitative and quantitative survey with 143 participants from 17 different countries also showed that about 90% of the participants understood the negative impact of the corona virus on their mental health and dignity (21). While as the study conducted in educational hospitals located in Birjand city in 2015 indicated that the human dignity of hospitalized elderly is well respected (1). This difference may indicate the specific circumstances of the pandemic and its effects on patient's dignity. Also, various studies showed that the factors such as inability to play important roles in life, feelings of meaninglessness in life, lack of support from friends and medical staff, and feelings of insecurity and anxiety about the future can threaten the dignity of hospitalized patients (4,22). Evidence revealed that type of disease was significantly correlated with patient's dignity. Due to the nature of diseases, the patients experience more stress and fear, loses their independence, more aggressive care methods are performed which has a negative impact on their dignity (23). All mentioned above are experienced more strongly in patients with COVID-19 (11). In addition, hospitalization of patients in dirty and noisy wards and lack of facilities such as blankets and sheets in the wards negatively affect the patients' dignity (24); therefore, since one of the main problems in the hospitals during the pandemic was the lack of facilities and crowded wards, it has had an effect on the dignity of patients in the present study.

According to the findings of the present study, a significant relationship was found between gender and sense of dignity, so that women had less sense of dignity, and this relationship was pronounced in the dimensions of distress symptom and social support. According to the PDI, the distress symptoms dimension includes the physical and psychological sources of the patient's distress and social support dimension assesses the patient's feelings about not supported by friends and family, not supported by health care providers and not treated with respect (18). In relation to COVID disease, studies have indicated that COVID-19 patients usually experience physical symptoms such as fever, shortness of breath, cough, and adverse drug reactions, as well as mental symptoms, such as fear of the disease process, loneliness, and anger associated with receiving treatment in isolation and beyond. It has also been reported that even if COVID-19 patients are asymptomatic or have mild symptoms, they may experience fear of death or mental distress due to isolation. In addition, COVID-19 patients who have spread the infection to others may even feel guilty (11, 25). The point related to the results of the present study is that according to the available evidence, women are more likely to suffer from psychological symptoms of this disease (9, 26). A study on American people's stress and coping during the COVID-19 epidemic showed similar results; thus, women experienced more stressful events and reported more severe stress than men (27). Therefore, it can be assumed that lower distress symptom dimension of dignity scores in the women of the present study can be related to their greater psychological distress.

Hospitalization is associated with some physical and mental problems that make patients feel the need for more support (28). In this regard, the results of the present study are in line with the study conducted in Tehran (2014) in which women felt less dignified in terms of social support (2). During the pandemic, due to the unknown nature of the COVID-19 disease, patients needed more information and emotional support from the healthcare providers (9). Previous studies also found that women who experienced a traumatic event were twice as likely as men to develop post-traumatic stress disorder (PTSD) (29), which is consistent with the results of the present study because women were more likely to suffer psychological symptoms. Therefore, medical professionals should pay special attention to the mental health of women and their need for support.

Based on the results of the present study, the resilience of the patients was favorable; consistent with this study, the study performed on 275 employees in one of the industries in southern of Iran during the COVID-19 pandemic reported the similar results in this regard (30). While the mean resilience score was lower in 296 patients with mild symptoms of COVID-19 in Wuhan than the normal level of ordinary Chinese adults (9). Researchers have argued that resilience should be understood as context-dependent, influenced by political, historical, and temporal conditions (17). Culture, geographical identities, value systems and social expectations can also affect resilience. Thus, the enormous

heterogeneity observed in response to pandemic tragedy around the world can be explained by emphasizing these differences (17, 31).

According to the findings of the present study, the mean resilience score was significantly lower in the age group of 20 to 40 years than those with 41-60 years in individual competence dimension. Consistent with this finding, some evidence indicated that adults ≥ 85 years old demonstrated the same or even greater capacity for resilience than younger individuals (8, 32). An individual's resilience is strongly influenced by external support and available resources. Better levels of social support and socioeconomic status make it easier to overcome COVID-19 (17). Therefore, since young age group patients have the higher family, social and economic responsibilities, they experience more severe adverse effects of the disease and pandemic conditions and thus have less resilience.

In the present study, there was a significant difference between different groups in terms of individual competence and the highest score was related to those with a bachelor's degree. Other studies conducted on resilience in COVID patients did not report any difference in this regard (8, 30). The lack of a relationship between resilience and educational level in other studies can indicate that an individual has the capacity to create and demonstrate resilience, regardless of socioeconomic context, personal experience, or social environment (8).

The results of the present study indicated that men had a higher resilience score in the control dimension than women. This finding is justifiable according to the results of the studies regarding the higher level of women's stress about COVID-19 and its anxiety and depression (33), and the negative effects of stress and anxiety on resilience (14, 15).

In the present study, there was an inverse relationship between resilience and human dignity of patients with COVID-19. The researchers of the present study could not find any similar study which measured the relationship between resilience and human dignity of patients with COVID-19. However, the studies on the relationship between resilience and depression and stress reported similar results to the present study (9); because patients with higher levels of resilience experience lower levels of anxiety and depression.

According to the results of the present study, dignity, marital status (single), and age (41-60 years) explained 20% of resilience score. Therefore, this study emphasized the importance of paying attention to human dignity, gender and age of patients with COVID-19 as the influencing factors on their perception of resilience. Future studies can be designed to discover other factors affecting resilience in COVID-19 patients.

One of the limitations of the present study is that the study was conducted in a small city and sampling approach applied in this study was convenience sampling, therefore, the generalization of the results of this study should be considered with caution. It is suggested that the present study be conducted with a larger sample size in the future.

One of the strengths of this study was evaluating human dignity and its role in the recovery process of patients and their resilience. This issue can play an effective role in the recovery of patients in terms of mental and psychological concerns in addition to the physical dimensions of the disease.

Implications for practice

The findings of the present study revealed that resilience is a protective factor for the patient's dignity. Desecrate dignity in patients can affect the process of recovery and return to normal life. Therefore, the preservation of human dignity should be considered in patients care process during diseases such as COVID-19 that the patients experience severe physical and mental distress and their dignity is threatening by these conditions repeatedly. The effective methods should be used to improve their resilience to overcome these stressful situations and maintain dignity. Moreover, marital status and age group should be considered as crucial factors in patients' perception of resilience.

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Conflicts of interest

The authors declared no conflict of interest.

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