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The effect of spiritual well-being scale level on general comfort in patients with two different chronic diseases (HF, COPD)

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ABSTRACT. This research was conducted to compare the spiritual beliefs and comfort levels of patients with heart failure (HF) and chronic obstructive pulmonary disease (COPD). This research was conducted between January- November 2021 a Hospital in City Center. The research population comprises (HF), (COPD) patients hospitalized a Hospital in the City. In the study, 232 patientswere reached. In the study, data were collected from the patients with the survey, Spiritual Well-being Scale and General Comfort Scale, during weekdays, using face-to-face interview technique with patients in their rooms. When we look at the effect of Spiritual Beliefs on General Comfort level in 2 chronic disease groups in the study, it is seen that Heart Failure patients with 13.7% and Chronic Obstructive Pulmonary patients 0.19%. In the study, the effects of psychological beliefs and socio-demographic characteristics on the comfort level of patients with heart failure and those with chronic obstructive pulmonary disease are higher.

Keywords: Heart failure; chronic obstructive pulmonary disease; spiritual well-being; comfort level.

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Introduction

According to the World Health Organization, the ten most common diseases seen in the world are COPD (11%) and Heart failure (14%) (National Council On Aging [NCOA], 2022).

These diseases are usually characterized by progression over years and life-threatening episodic exacerbations that become more frequent over time. The pain, complex emotions, spiritual uncertainty and fears experienced in individuals with life-threatening diseases can appear as spiritual problems for both the patient and family members (Blinderman et al., 2009; Edmonds et al., 2001; Gore et al., 2000).

When the literature is examined; It is seen that subjects such as anxiety, quality of life, symptomcomplaints, self-care, sleep quality, etc., are studied in patients with COPD and Heart failure. When examined in the literature; COPD and Heart failure patients only in studies on spiritual belief; It has been determined that spiritual beliefs are at medium and high levels, and spiritual approaches help patients to improve their physical, mental and social status, increase the qualityof life of patients, and help them cope with the symptoms they experience (Alvarez et al., 2016; Davison & Jhangri, 2013; Gergianaki et al., 2019; Helvaci et al., 2020; Hasegawa et al., 2017; Naghi et al., 2012; O'Callaghan et al., 2020).

In the literature, it is seen that studies on comfort in patients with COPD and Heart failure are

quite limited and mostly comfort levels are examined. In these patients, it is very important to provide or increase comfort in order to effectively cope with the symptoms of the disease. In addition, the symptoms experienced by these patients negatively affect their individual independence and limit their daily lives in many ways. All these negativities negatively affect the quality of life and comfort level of patients (Chen et al., 2013; Gülay et al., 2020; Kütmeç, 2020).

Strada and his colleagues advanced congestive heart failure or chronic obstructive pulmonary disease (COPD) patients in the study of ethics for 30 months follow one's spiritual beliefs and quality of life hasn't changed, the problems of these patients, their symptoms and their quality of life, physical and mental health affect their functionality was observed (Strada et al., 2013). Studies evaluating several chronic diseases such as COPD and heart failure together are very limited in the literature. These studies are important in terms of better observing the differences between chronic diseases. Spiritual beliefs are becoming increasingly important in individuals with chronic diseases, and patients use spiritual beliefs as a tool to face pain and difficulties (Rusa et al., 2015). When spiritual care is provided, it encourages resilience against stress and loss, gives hope to those with despair, and allows individuals to develop a sense of meaning in events (Rego et al., 2020).

In advanced stages, patients experience progressive functional impairment, symptom distress,and high anxiety and depression, which can lead to a decrease in patients' comfort and qualityof life (Gore et al., 2000; Blinderman et al., 2009; Edmonds et al., 2001). According to Silva et al., (2016), religiosity and spirituality are important dimensions of spiritual well-being and coping with chronic diseases. More in-depth knowledge of religious and spiritualbeliefs is needed, as they can affect treatment and recovery in patients suffering from chronichealth conditions (Silva et al., 2016). Chronic obstructive pulmonary disease and Heart failure diseases are among the most harmful diseases affecting people, in addition to various signs andsymptoms that lead to addiction to continuous drug use, they can cause fatigue, difficulty inadapting to devices and treatments, life-altering and treatment-related side effects (Ebrahimi et al., 2014; Riella, 2010).

Patients have different comfort requirements in physical, psychological, emotional, social and environmental contexts (Yücel, 2011). Chronic diseases and functional problems thatdevelop due to these diseases require planning, implementing and evaluating holistic nursing interventions (Gülay et al., 2020). Ensuring the comfort of the individual is in the spirit of holistic nursing care practices. The comfort levels of individuals increase along with their life quality (Chen et al., 2013). A dimension of the comfort concept is psycho-spiritual comfort. This dimension comprises mental, emotional and spiritual belief (Kütmeç, 2020).

Elimination or reduction of discomfort in patients is possible by increasing comfort. It is known that patients with a high level of comfort recover faster and cope with the disease process more easily (Kütmeç, 2020). There are many factors that affect the comfort of life in individuals with chronic diseases. Spiritual beliefs have an important place among these factors(Ebrahimi et al., 2014; Strada et al., 2013).

The course of the disease in patients with COPD and Heart failure is much more gradualin terms of exacerbation, symptom frequency and recovery periods compared to other chronic diseases and advanced cancer. In this difficult process, spiritual beliefs will help patients to provide adequate comfort, develop constructive behaviors and increase their power to fight symptoms.

This study was carried out to determine the effect of spiritual beliefs on the comfort of life in patients with COPD and Heart failure.

Material and methodsresearch type

This research is a cross-section study.

Location and time of the study

This research was conducted between January- November 2021 a Hospital in City Center.

Study population and sample selection

The population of the research was registered at XX University a Medical Center in 2020; a total of 519 patients were diagnosed, including 301 hospitalized in the Cardiology Clinic and 218 in the Chest Clinic. The sample size of the study was determined as 434 people with a power analysis of 95% confidence interval, 0.05 error level, 0.25 effect size and 0.95 universe representation power. The number of patients to be selected from the clinics was determined by the cluster weighting method and then listed and selected by simple random sampling method. Thus, the patients to be recruited were determined as 114 Heart Failure patients registered from the Cardiology Clinic and 118 COPD patients from the Chest Diseases Clinic, and a total of 232 patients were reached. Since all three groups of patients were Muslims, their religious beliefs and prayer rituals were not questioned.

Inclusion criteria

- Being open to communication and cooperation
- Volunteering to participate in the study

Excluded criteria

- Those with mental health problems
- Hearing impaired people

Data collection toolssurvey form

The questionnaire consists of 13 questions related to patients' socio-demographic characteristics [age, gender, marital status, education, income level, diagnosis, social security, caregiver, chronic disease, etc.].

Since the Spiritual Well-being and its sub-dimensions were used in the study, the religious and prayer rituals of the patients were not questioned.

Functional assessment of chronic disease treatment spiritual well-being (FACIT-Sp) scale

FACIT-Sp is a measurement tool developed to evaluate individuals' spiritual well-being with a chronic and life-threatening disease (Peterman et al., 2002). The scale consists of 12 items with a five-point Likert rating: "0 = not at all, 1 = a little bit, 2 = somewhat, 3 = quite a bit, and 4 = very much". The scale has three sub-dimensions: "Meaning" sub-dimension [items 2, 3, 5, and 8], "Peace" sub-dimension [items 1, 4, 6, and 7] and, "Faith" sub-dimension [items 9,10,11, and 12]. In the FACIT-Sp Scale, individuals are expected to consider the last 7 days and answerthe scale. In the scale, reverse scoring is applied for the 4th and 8th questions with negative meaning. The total score in the scale varies between 0-48 points, the higher the scores obtainedfrom the scale, the higher the level of the spiritual well-being of the individual and lower scores indicate to a decreased spiritual well-being level. The FACIT-Sp Scale was adapted to the Turkish context by Aktürk et al., (2017), and the Cronbach's alpha coefficient was calculated as 0.93, 0.78, 0.72, and 0.87 for the "Faith", "Meaning", "Peace" sub-dimensions, and overall scale, respectively (Aktürk et al., 2017). In this study, Cronbach's alpha coefficient was calculated as 0.72, 0.70, 0.80 and 0.88 for the "Faith", "Meaning", "Peace" and overall scale, respectively.

Shortened general comfort questionnaire form

Kolcaba developed the SGCQF in 2006 (Kolcaba et al., 2006a; Kolcaba et al., 2006b). The Turkish validity and reliability tests were conducted in 2018 by Seyhanet al. It includes comfort, relief (9 items), Ease (9 items) and Transcendence (10 items) sub- dimensions. The evaluation of the scale consisting of positive and negative items, includes thenegative items collected by reverse coding. The average is found by dividing the total score bythe number of items on the scale. The lowest value 1 indicates the low comfort state while the highest 6 indicates the high comfort state. The scale consists of 28 items and score of the scaleranges between 28-168. The Shortened General Comfort Questionnaire Form consists of three sub-dimensions: relief, relaxation and superiority. An Exploratory Factor Analysis was performed to test the construct validity of the scale. The reliability of the Shortened General Comfort Questionnaire Form is Cronbach's alpha 0.82 (Çıtlık et al., 2018). Cronbach's alpha in this research is calculated as 0.80.

Data collection

The research data were collected at XX University a Medical Center in chest service, hemodialysis unit, cardiology service, coronary intensive care units during weekdays, using in-person interview technique with patients between January- November 2020. Each interview took 15-20 minutes. The data collection forms were read and marked by the researchers to the patients without making any comment.

Research variables

Independent variable: Spiritual belief and socio-demographic variables

Dependent variable: General comfort level

Data Analysis SPSS 24 package program was used for statistical data analysis. Percentage, standard deviation, mean and regression analysis were used to evaluate the data. Statistical significance level was accepted as $p < 0.05$. Linear regression enter was used to evaluate the effect of spiritual beliefs on comfort level. The model was used to see the effect of both spiritual beliefs and socio-demographic characteristics on the comfort level.

Ethical principles

Necessary permissions besides a legal permission were obtained from the Health Sciences Non-Interventional Clinical Research Ethics Committee 2021-1595 and the institutions where the research was conducted. Before starting the study, the purpose of this study was explained to the patients and their verbal consent was obtained.

Results

This section presents the research findings regarding the impact of spiritual beliefs on the comfort levels of heart failure and chronic obstructive pulmonary disease patients.

Socio-demographic characteristics of heart failure and chronic obstructive pulmonary diseasepatients are shown in Table 1 (N = 232).

According to Table 2, there was a statistically significant difference in Spiritual Well-Being and General Comfort Scale sub-dimension scores between patient groups (Heart Failure, Chronic Obstructive Pulmonary Disease) in the study (p = 0.000).

Table 1. Distribution of introductory characteristics according to patient groups.

Features	Heart Failure		Chronic Obstructive Pulmonary Disease	
	N = 114	%	N = 118	%
Gender				
Woman	56	49.1	50	36.2
Male	58	50.9	88	63.8
Marital Status				
The married	106	93.0	126	91.3
Single / divorced	8	7.0	12	8.7
Education Level				
Illiterate	24	21.1	40	29.0
Literate	27	23.7	16	11.6
Primary education	43	37.7	58	42.0
High school	15	13.2	17	12.3
University	5	4.4	7	5.1
Income rate				
Good	16	14.0	25	18.1
Middle	94	82.5	100	72.5
Bad	4	3.5	13	9.4
Working status				
Working	5	4.4	8	5.8
Not working	59	51.8	43	31.2
Retired	50	43.9	87	63.0
Social security				
There is	105	92.1	122	88.4
No	9	7.9	16	11.6
Presence that helps care				
Yes	112	98.2	100	76.3
No	2	1.8	38	23.7
Presence of other chronic diseases				
Yes	99	86.2	110	79.7
No	15	13.2	28	20.3
Age	63.92 ± 14.46		66.02 ± 10.32	
Duration of diagnosis (Year)	3.01 ± 2.58		8.44 ± 7.75	

Table 2. Score Average Comparison of the patient groups on spiritual and generalcomfort scales.

Features	Heart Failure		Chronic Obstructive Pulmonary Disease		p
	Mean ± SD	Item mean	Mean ± SD	Item mean	
Meaning	7.77 ± 2.49	1.94 ± 0.62	8.88 ± 2.50	2.22 ± 0.62	t = -3.402 p = 0.001
Peace	7.74 ± 1.79	1.93 ± 0.44	8.74 ± 2.43	2.18 ± 0.60	t = -3.548 p = 0.000
Faith	10.57 ± 2.51	2.64 ± 0.62	12.27 ± 2.50	3.06 ± 0.62	t = -5.155 p = 0.000
Spiritual Well-Being	26.09 ± 5.33	2.17 ± 0.44	29.71 ± 5.28	2.49 ± 0.47	t = -5.269 p = 0.000
Relief Comfort	22.98 ± 2.45	2.64 ± 0.19	21.42 ± 3.09	2.42 ± 0.38	t = -.786 p = 0.433
Relaxation Comfort	23.76 ± 1.77	2.55 ± 0.27	24.14 ± 3.11	2.67 ± 0.37	t = -2.988 p = 0.003
Superiority Comfort	27.89 ± 2.66	2.78 ± 0.26	26.24 ± 3.10	2.63 ± 0.34	t = 3.715 p = 0.000
General Comfort Questionnaire	74.64 ± 4.92	2.57 ± 0.29	72.08 ± 8.13	2.78 ± 0.62	t = 2.783 p = 0.006

The effect of Spiritual Well-Being on General Comfort level was found to be statistically significant in patients with Heart Failure (p = 0.001). The effect of Spiritual Well-Being on the General Comfort level was found to be statistically insignificant in the group with Chronic Obstructive Pulmonary Disease (p > 0.05). In the linear regression, the Meaning sub-dimension independent variable was excluded by the model in all three disease groups. Since the correlation between the Meaning sub-dimension and the General Comfort Scale was low, it was excluded by the model. Therefore, it is not included in the Table 3.

Table 3. The Effect of Spiritual Well-Being on the Comfort Level.

Model	Heart Failure		Chronic Obstructive Pulmonary Disease	
	Beta	Sig	Beta	Sig
Peace	-.423	.029	.063	.752
Faith	-.023	.899	.109	.542
Spiritual Well-Being	.079	.771	-.249	.359
p	R sqare = .137 F = 5.841 p = .001		R sqare = .019 F = .746 p = .527	

In Table 4, the effects of socio-demographic characteristics and Spiritual Well-Being on the General Comfort Level were examined in the patient groups. It was determined that socio- demographic characteristics and Spiritual Well-Being affect the General Comfort Level in patients with Heart Failure and Chronic Obstructive Pulmonary Disease, and the result was statistically significant (p < 0.05).

Table 4. General Comfort Level Predictors.

Model	Heart Failure		Chronic Obstructive Pulmonary Disease	
	Beta	Sig	Beta	Sig
Age	.033	.819	.131	.285
Gender	-.323	.004	-.086	.521
marital status	-.174	.065	-.053	.618
education level	-.081	.498	-.208	.132
Income status	-.123	.209	.090	.381
Working status	-.349	.002	-.079	.487
Social security	-.190	.065	-.114	.248
Number of children	.277	.013	-.260	.042
Assistant person	-.148	.140	-.054	.288
Duration of diagnosis	.108	.237	-.404	.000
Presence of other chronic diseases	.013	.891	.225	.025
Peace	-.016	.942	-.072	.744
Faith	-.068	.706	-.151	.482
Spiritual Well-Being	-.360	.254	.015	.963
p	Rsqare = .413 F = 4.502 p = .000		R sqare = .340 F = 2.573 p = .003	

Discussion

Spiritual Well-being was analyzed among two disease groups, heart failure and chronic obstructive pulmonary disease. Accordingly, it was determined that the Spiritual Belief scale and sub-dimension mean scores of the patients were the lowest in Heart Failure patients. Steinhauser et al., (2006) Evaluated the spiritual concerns of patients with advanced heart failure, chronic obstructive pulmonary disease, cancer and kidney failure at the end of life; it has been found that patients with heart failure have higher spiritual anxiety (Steinhauser et al., 2006).

This result is similar to our study. Heart failure can be the last stage of heart disease, so these patients can potentially suffer more. Due to the unpredictable course of heart failure disease and the potential for sudden, unexpected death, these patients may experience a lack of spiritual beliefs due to unmet spiritual needs and suffering. Because of its effects on spirituality, individual adjustment to heart failure disease burden, life satisfaction, and depression, it is the responsibility of healthcare providers to help patients with heart failure identify their spiritual concerns and facilitate their resolution (Westlake et al., 2008).

In the study, the Spiritual Well-being total, Meaning, Peace and Faith sub-dimension item average scores of the patients with Heart Failure ranged from 1.94 to 2.64. When the average of this item is considered, it is seen among the options very little. In the studies in the literature,in which the Spiritual beliefs of patients with heart failure were evaluated with different scales;patients were found to have moderate to high levels of spiritual belief (Dehbashi et al., 2015; Eğlence, 2016; Taghavi et al., 2020).

In the study, the Spiritual Well-being total, Meaning, Peace and Faith sub-dimension item average scores of patients with Chronic Obstructive Pulmonary Disease ranged from 2.18 to

3.06. When the average of this item is considered, the patients have a very good level of spiritual

belief. In studies in the literature, in which the Spiritual beliefs of those with Chronic Obstructive Pulmonary Disease are evaluated with the same and different scales, it has been found that they have a medium or higher level of spiritual belief (Davison & Jhangri, 2013; Duarte et al., 2020; Tugay, Tutal & Sezer, 2017).

The fact that patients with heart failure experience the fear of death at any moment increases their spiritual need. When this need is not met, they get into spiritual stress. In our study, the spiritual belief levels of these patients may have been found to be low, probably because their spiritual needs were not met.

In the study, patients with heart failure General Comfort Scale and Ease, Transcendence, Reliefcomfort sub-dimension score item average is between 2.55 and 2.78. Accordingly, it is seen that patients with heart failure have a comfort level close to moderate. Since the research examining the General Comfort of Patients with Heart Failure is not in the literature, it has not been discussed with the literature.

In the study, the mean score of the General Comfort Scale and Ease, Transcendence, Relief sub- dimension of patients with Chronic Obstructive Pulmonary Disease is between 2.42 and 2.78. Accordingly, it is seen that individuals with Chronic Obstructive Pulmonary Disease have a comfort level close to medium. In the study of Kütmeç Yılmaz (2020), in which the General Comfort levels of those with Chronic Obstructive Pulmonary Disease were evaluated with different scales, it was determined that the patients had comfort above the average (Kütmeç, 2020).

In the study, the effect of Spiritual Beliefs on the General Comfort level was examined in 2 chronic patient groups, and it was determined that the greatest effect was 13.7% in Heart Failurepatients and 0.19% in chronic obstructive pulmonary patients. In these two groups of patients, since patients with heart failure have a fear of dying at any moment, the spiritual beliefs of the patients are affected and because these beliefs are not met, the comfort level of the patients is affected.

It was also determined that the socio-demographic characteristics [gender and number of children] of patients with heart failure had a 41.3% effect on patients' comfort levels.

It was also determined that the socio-demographic characteristics (number of children, duration of diagnosis and concurrent chronic diseases) had a 34% impact on the comfort levels of patients with chronic obstructive pulmonary disease.

In the study, it was determined that as the diagnosis period of the patients increased, their comfort levels were negatively affected. In the study of Kütmeç Yılmaz with COPD patients; It was determined that there was a statistically significant difference between the patients' marital status, income status, use of oxygen at home, the number of drugs used continuously, the number of annual hospitalizations and the severity of dyspnea, and the overall comfort totalscore average. In the same study, it was determined that the General comfort levels of patients

diagnosed with COPD for 11 years or more were lower than those under 11 years (Kütmeç,2020).

Study limitations

Since the researcher's native language is Turkish, the inclusion of those who cannot speak Turkish (Kurdish patients and Syrian immigrant patients) constitutes a limitation of the study.

Conclusion

- It was also determined that patients with chronic obstructive lung disease had the lowestaverage scores on the General Comfort Scale and sub-dimensions.
- In the study, it was determined that patients with Heart Failure had the lowest scores onthe Spiritual well-being scale and its sub-dimensions.
- In the study, it was determined that the socio-demographic characteristics and Spiritualbeliefs of the patients with Heart Failure and Chronic Obstructive Pulmonary Diseases affected the General Comfort of the patients between 34 and 41%.

The results shed light on the necessity for planning comfort interventions individuals suffering from chronic diseases with a holistic approach and nursing interventions for supporting their spiritual beliefs. Furthermore, as there is little scholarship on methods to increase comfort in chronic diseases, similar studies with larger samples with various periods are required in further studies.

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