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Comfort and Quality of Life of Older Cardiac Patients: A Cross-sectional Study

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Abstract

Objective: A demographic transformation in favor of older people and the incidence of cardiovascular diseases requires considering the concepts of comfort and quality of life in older cardiac patients in all care settings. Thus, these concepts, closely related to the definition of health, conduce determination of the health care needs of older cardiac patients and the development of supportive approaches. The aims of the study were to determine the comfort and quality of life, examine the relationship between them, and to identify factors that affect the comfort and quality of life in older cardiac patients.

Materials and Methods: The cross-sectional study was conducted in the inpatient cardiology clinic of a university hospital in Bolu. Overall, 209 patients, who met the inclusion criteria, consisted of the sample. The general comfort questionnaire and quality of life index cardiac version-IV were used to collect data. Further analyzes were carried out with multivariate analysis of variance.

Results: Comfort and quality of life scores were 16.18±0.82 and 2.97±0.39, respectively. Physical, psycho-spiritual, environmental, and socio-cultural comfort closely correlated with quality of life ($p<0.05$). Multivariate analysis of variance showed that living place, perception of income status, frequency of hospitalization, dietary adherence, routine health checkup, and dizziness were common covariates of comfort and quality of life ($p<0.05$).

Conclusion: There was a correlation between all dimensions of comfort and quality of life. By improving the variables that affect comfort and quality of life together, patients' comfort can be provided and their quality of life can be increased.

Keywords: Aging, cardiac diseases, geriatric nursing, patient comfort, quality of life

Introduction

The average age of the global human population is increasing. The number of older people worldwide has risen to over one billion (13.5% of the global population) in 2021. Moreover, by 2030, one out of every six people is expected to be 60 and over (1). Turkey is among the aging countries because the proportion of the older population in the country rose by 22.5% in the last five years, and its ratio to the country's total population to 9.5%. This rapid demographic transformation has increased the expectation of healthy aging (2). However, an increase in the incidence of chronic diseases due to age-related physiological changes poses a grave challenge for healthy aging.

Cardiovascular diseases (CVDs) most significantly affect the mortality and morbidity rates in older people (3). Previous studies have demonstrated that an aging population is associated with the increasing prevalence of CVDs (4). As part of the normal aging process, the cardiovascular system undergoes non-pathological functional and structural changes, such as hypertrophy, a decrease in cardiac output, and an increase in peripheral vascular resistance (4,5). In addition, the cardiovascular system might also be affected by several non-modifiable (age, gender,

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and genetics) and modifiable (smoking, diabetes, obesity, etc.) factors. Thus, the emergence of life-threatening CVDs, such as hypertension, coronary artery disease (CAD), heart failure (HF), valvular diseases, and arrhythmias, which constitute approximately 39.6% of age-related diseases, is inevitable in older people (3,6,7). In addition, geriatric syndromes that develop with age, such as deterioration in neurological and cognitive functions, muscle wasting, functional limitation, polypharmacy, and comorbidities, may adversely affect cardiovascular recovery (8).

Although CVD-specific medical developments increase life expectancy, adding life to years rather than years to life has become the philosophy of healthy aging. Therefore, with the increasing life expectancy in older people, the care and treatment approaches are now more focused on providing comfort and improving the quality of life (QoL) (9). Comfort and QoL are not only indicators of health care quality but also the goals and expected results of holistic nursing care (10). Although they seem to be independent concepts, both offer a mutual structure for measuring physical, mental, social, and spiritual health (11). These two concepts, related closely to the World Health Organization definition of health, can provide an opportunity to determine the health care needs of older people and develop approaches that support them.

Previous studies that focused on the comfort needs or comfort care of older people, used commonly as a guideline Kolcaba's Comfort Theory (10,12-16). Kolcaba (17) examined in depth and explained comfort theory with a holistic view. She combined the levels of relief, ease, and transcendence aspects of the comfort concept with the physical, psychospiritual, environmental, and socio-cultural dimensions of health (17). Kolcaba et al. (18) stated that comfort theory is compatible with the values and domains of nursing, such as care, symptom management, interaction, holism, healing environment, identification of needs, and homeostasis. Therefore, comfort requirements are universal needs that must be met for individuals of all ages. In addition, meeting comfort needs is seen as one of the efficient ways of improving the QoL of older people (10). A thematic synthesis comprising 48 qualitative studies on older people showed that one of the core sub-dimensions of QoL perceived by individuals was emotional comfort (19). A limited number of studies on older people with CVDs have also shown an association between comfort level and QoL (20,21). Huiskes et al. (20) found that age, functional capacity, symptom burden, and decreased comfort levels were significant predictors of QoL in older people with HF. Taşkın Duman et al. (21) reported that comfort-based attempts in an older individual with atrial fibrillation were associated with relaxation at a level that could improve the QoL.

A few studies on cardiac patients focused on the comfort levels associated with intensive care treatment, interventional cardiology, and cardiac surgery (22-25). Some experimental studies have also demonstrated a relationship between anxiety and relaxation through therapeutic touch and music therapy in older people (10,12). A case study of an older person with atrial fibrillation showed positive effects of comfort interventions (21). To date, to the best of our knowledge, no studies have focused on the comfort needs and QoL of older patients with CVDs in a synchronized manner. Therefore, this study aimed to determine the comfort requirements and QoL of older people with CVDs. Through this study, we sought answers to the following questions:

- What are the comfort and QoL levels of older people with CVDs?
- What is the relationship between comfort and QoL?
- Which factors affect the comfort and QoL of older people with CVDs?

Materials and Methods

Study Population

The study followed a cross-sectional design and was conducted in accordance with the Strengthening the Reporting of Observational Studies in Epidemiology Statement guidelines for cross-sectional studies. The study was conducted between August 2018 and August 2019. We recruited patients from two inpatient cardiology clinics of a university hospital in Bolu, Turkey. The sample size was estimated using the G*Power v3.0.10 software. The parameters settings were as follows: alpha =0.05, power =0.80, effect size [cohen d] =0.6. These settings were similar to those used in a previous study focused on the assessment of comfort levels by gender as the primary endpoint in the Turkish population (22). Using these settings, the adequate sample size was estimated as 90 participants. Inclusion criteria were as follows: (a) Aged 65 and over, (b) having diagnosed with CVDs, (c) speaking and understanding Turkish, (d) ability to communicate verbally. Participants with hearing impairments and cognitive limitations were excluded.

Study approval was obtained from the Institutional Ethics Review Board (Bolu Abant İzzet Baysal University Clinical Researches Ethics Review, registered number 2018/96). The study was based on volunteerism and beforehand, the participants were informed about the procedure and their written consent was obtained. This study was conducted in adherence to the principles of the Declaration of Helsinki.

Data Collection and Tools

Data were collected with a 24-item questionnaire (including socio-demographic characteristics, history of CVDs, and the daily activities of life), comfort and QoL measurement tools.

The data were obtained through a face-to-face interview and recorded in a statistical program via a computer.

Comfort

The comfort level was measured using the Turkish-general comfort questionnaire (GCQ) (26). Kolcaba (27) developed the original scale to measure the comfort levels of an individual holistically with the guidance of the taxonomic framework of comfort theory. The GCQ comprises 48 items and a 4-point Likert structure that evaluates comfort dimensions and levels. Dimensions of comfort include physical (12 items), psycho-spiritual (13 items), environmental (13 items), and socio-cultural dimensions (10 items). The comfort levels include relief (16 items), ease (17 items), and transcendence (15 items). On the scale, 24 items were reversed because they had negative expressions. The score of the scale is obtained by the weighted sum of the responses to the items. Thus, the scores of the participants ranged from 48 to 192. The mean value is determined by dividing the total score obtained from the number of scale items. Comfort points range from 1-low comfort to 4-high comfort. The Cronbach's α value of the Turkish version of the scale was determined as 0.85 (26). In the current study, Cronbach's α value was evaluated as 0.91.

QoL

The QoL was measured using the Turkish-quality of life index (QLI) cardiac version-IV (28). The scale, originally developed by Ferrans and Powers (29), comprises two fundamental sections, each with 35 questions, and a 6-point Likert scale. The first section measures satisfaction with various aspects of life (ranging from 1-very dissatisfied to 6-very satisfied), and the second section measures the importance of aspects related to the person (ranging from 1-very unimportant to 6-very important). The scale evaluates four main dimensions (health and function, socio-economic, psychosocial/spiritual, and family) and the overall QoL (29). Each subsection was scored separately. The number 3.5 was subtracted from the response received for each item in satisfaction and importance sections. The responses given for both sections were multiplied by each other. Then, all the results from both sections were added. The overall score obtained after this process ranged between -15 and +15. To remove the negativity, 15 was added to the score obtained for each participant. For QLI cardiac version-IV, the total score for a participant ranged from 0 to 30. Higher scores indicated better QoL. The internal consistency reliability of QLI cardiac version-IV was supported by Cronbach's α values, which ranged from 0.73 to 0.99 (30). In the current study, we obtained Cronbach's α value of 0.92 for the overall scale, with the value ranging from 0.68 to 0.92 for the sub-dimensions.

Statistics

The data were analyzed using IBM SPSS Statistics 26.0 (SPSS Inc., 2019) package program. Descriptive statistics were represented as numbers, percentages, and mean and standard deviation. The normality of the numerical variables was assessed using the Kolmogorov-Smirnov test with skewness and kurtosis values of ±2. The mutual correlation of the dependent variables (comfort and QoL) with each other was determined by Pearson's correlation coefficient. Multivariate analysis of variance (MANOVA) was conducted to compare the mutual effect of independent variables (demographic, history of CVDs, and symptom-based characteristics) on dependent variables. MANOVA assumptions, multivariate normality and outliers, multicollinearity, were met. When the p-value of homogeneity of covariance matrices was >0.05 and Wilks' Lambda was <0.05, the Pillai trace criterion was used. In the study, the significance level was accepted as <0.05.

Results

Finally, 209 participants were recruited. The mean age was 72.9±7.6 years. Most of them were male (61.7%), more than half had a history of angina or myocardial infarction (59.8%), and most of them did not have routine exercise habits (87.1%) but routinely took care of their health (56.9%). Meeting friends/relatives (53.3%) and outdoor activities such as walking in the park (28.7%) were among the most common activities. The most common sleep problems experienced were difficulty falling asleep (15.2%) and frequent nighttime awakenings (24.5%) (Table 1). The most common symptoms were chest pain (85.6%) and dyspnea (68.4%); the severity of these perceived symptoms was low to moderate (chest pain 78%, dyspnea 60.8%) (Table 2).

Relationship Between Comfort Level and QoL

Overall, for all participants, mean GCQ and QLI cardiac version-IV scores were 16.18±0.82 and 2.97±0.39, respectively. Overall, GCQ and QLI cardiac version-IV scores had a positive medium-high correlation ($r=0.76$, $p<0.001$). Physical comfort positively and moderately correlated with the health and function sub-dimension of QLI cardiac version-IV ($r=0.51$, $p<0.001$). Psycho-spiritual, environmental, and socio-cultural comfort strongly correlated with the psycho-spiritual and the family sub-dimensions of QLI cardiac version-IV ($p<0.001$) (Table 3).

Multivariate Analysis

Among the assessed descriptive characteristics, residence, perceived income status, frequency of hospitalization, dietary adherence, routine health control, and dizziness were independently associated with GCQ and QLI cardiac version-IV scores ($p<0.05$). Village/county living ($p<0.001$, $\eta^2=0.07$) and higher-income perception ($p<0.001$, $\eta^2=0.06$) were found to be associated with better QLI cardiac version-IV and GCQ scores. Dietary adherence and routine health control were associated with high QLI cardiac version-IV and GCQ scores,

accounting for 11% and 26% of the variance, respectively. On the other hand, increased hospitalizations ($p<0.001$, $\eta^2=0.05$) and dizziness ($p<0.017$, $\eta^2=0.04$) were associated with poor QLI cardiac version-IV and GCQ scores (Table 4). No significant difference was found between other descriptive characteristics and comfort and QoL.

Discussion

To our knowledge, this was the first study in which both the comfort level and QoL of older people with CVDs were examined in a synchronized manner. Our findings showed that the study population exhibited high scores in terms of both sub-dimensions of and overall comfort. It is noteworthy

Table 1. Participant's characteristics (n=209)

Variables	n	%	Variables	n	%
Age (year)[‡]	72.92±7.60 (min-max: 63-95)		**Diagnosis**		
			MI/angina	125	59.8
			Pace maker/ICD	33	15.8
			HF	45	21.5
			Valve diseases	6	2.9
Gender			**Frequency of hospitalization**		
Female	80	38.3	No	80	38.3
Male	129	61.7	Once	87	41.6
			Twice	29	13.9
			At least three times	13	6.2
Education level			**Comorbid diseases (n=175)**[†]		
Primary school	160	76.6	Diabetes mellitus	60	34.3
Secondary school	42	20.1	Hypertension	88	50.3
At least university	7	3.3	Chronic renal failure	8	4.6
			Chronic respiratory diseases	15	8.6
			Thyroid diseases	4	2.2
Marital status			**Smoking**		
Married	170	81.3	User	28	13.4
Single	39	18.7	Smoking cessation	81	38.8
			Lifelong non-smoker	100	47.8
People living with			**Alcohol use**		
Alone	18	8.6	User	8	3.8
Wife	123	58.9	Alcohol cessation	53	25.4
Spouse and children	37	17.7	Rechabite	148	70.8
Children/grandchildren	31	14.8			
Living place			**Regular exercise status**		
Village	78	37.3	Yes	27	12.9
Township	90	43.1	No	182	87.1
Town	41	19.6			
Social security			**Dietary compliance**		
Yes	197	94.3	Yes	108	51.7
No	12	5.7	No	101	48.3
Access to health facility			**Regular health check up**		
Yes	180	86.1	Yes	119	56.9
No	29	13.9	No	90	43.1
Perception of income status			**Eligibility for health expenditures**		
Income less than expenses	36	17.2	Sufficient	167	79.9
Income equals expense	144	68.9	Insufficient	42	20.1
Income more than expenses	29	13.9			
Participation in social activities (n=317)[†]			**Sleep problems (n=237)**[†]		
Talking to friends/neighbors	169	53.3	No	99	41.8
Going to the coffee shop	53	16.7	Difficulty falling asleep	36	15.2
Park/beach activities	91	28.7	Frequent waking night	58	24.5
Artistic events	4	1.3	Wake-up early in the morning	11	4.6
			Napping during the day	33	13.9

[‡]Mean ± standard deviation,
[†]Multiple responses,
MI: Myocardial infarction, HF: Heart failure, ICD: Implantable cardioverter defibrillator

that there is limited evidence regarding the comfort levels of cardiac patients or older people with CVDs. A previous study on cardiac patients with an average age of 60 years and admitted to the coronary care unit reported that the comfort level was above average and that the comfort scores were significantly associated with age (24). In our study, the comfort level was lower than that of patients with an average age of 60 years in the Nural and Alkan's (24) study, however, we did not observe any significant difference in comfort levels on the basis of age. Our findings indicated that patient empowerment was needed to further increase their comfort levels. In a previous study, Krinsky et al. (31) handled patient discomfort owing to cardiac symptoms and reported that Kolcaba's Comfort Theory could be easily applied to cardiac patients. Sun et al. (32) reported that comfort nursing based on the collaborative care model improved the physical, mental, social, and emotional comfort levels of coronary heart disease patients. Healthcare professionals, especially in clinical settings, might need to tend to the physical comfort needs of the patients. It is noteworthy that the absence of physical discomfort may not always be associated with comfort. However, comfort care includes more holistic and multidimensional interventions, and it is related to aspects such as dignity, empathy, kindness, and compassion (33). It can be assumed that such an approach can positively affect the QoL of the patients, which has been reported to be closely related to the concept of comfort (11,34).

Table 2. Descriptive statistics of participants' symptom frequency and severity (n=209)

Symptoms	Symptom severity			
		Low	Moderate	Severe
	n (%)	n (%)	n (%)	n (%)
Chest pain	179 (85.6)	64 (30.6)	99 (47.4)	16 (7.6)
Dyspnea	143 (68.4)	57 (27.3)	70 (33.5)	16 (7.6)
Palpitation	117 (56)	40 (19.1)	66 (31.6)	11 (5.3)
Tiredness	110 (52.6)	46 (22)	52 (24.9)	12 (5.7)
Edema	28 (13.4)	9 (4.3)	18 (8.6)	1 (0.5)
Cyanosis	22 (10.5)	13 (6.2)	8 (3.8)	1 (0.5)
Nausea/vomiting	29 (13.9)	25 (12)	4 (1.9)	-
Dizziness	24 (11.5)	19 (9.1)	4 (1.9)	1 (0.5)
Sweating	40 (19.1)	20 (9.6)	15 (7.2)	5 (2.3)
Syncope	2 (1)	(1)	-	-

Table 3. General comfort questionnaire and Ferrans and Powers quality of life index cardiac version-IV means and correlations (n=209)

	Mean ± SD	Min-max	GCQ	GCQ-1	GCQ-2	GCQ-3	GCQ-4	QLI	QLI-1	QLI-2	QLI-3	QLI-4
†**GCQ**	2.97±0.39	2.02-3.81		0.65**	0.92**	0.85**	0.83**	0.76**	0.51**	0.62**	0.74**	0.66**
(1) Physical	2.72±0.46	1.33-3.75			0.56**	0.27**	0.27**	0.48**	0.51**	0.34**	0.36**	0.21**
(2) Psycho-spiritual	3.13±0.52	2-4				0.70**	0.70**	0.75**	0.50**	0.61**	0.73**	0.67**
(3) Environmental	2.99±0.49	1.92-3.77					0.78**	0.59**	0.30**	0.49**	0.66**	0.60**
(4) Socio-cultural	3.06±0.45	1.90-3.90						0.65**	0.34**	0.56**	0.66**	0.69**
†**QLI**	16.18±0.82	14.41-17.93							0.78**	0.83**	0.87**	0.77**
(1) Health and function	16.33±1.75	11.42-20.85								0.45**	0.48**	0.28**
(2) Socio-economic	17.10±1.78	13.78-20.47									0.70**	0.70**
(3) Psychosocial/ spiritual	18.63±2.52	12.32-24.75										0.79**
(4) Family	19.16±2.51	13.25-21.25										

**Correlation is significant at the 0.01 level (2-way),
†Scale total score,
GCQ: General comfort questionnaire, QLI: Ferrans and Powers quality of life index cardiac version-IV, Mean ± SD: Mean ± standard deviation

Table 4. Multivariate analysis of participants' characteristics with the general comfort questionnaire and the Ferrans and Powers quality of life scale cardiac version-IV

	General comfort questionnaire			Quality of life index				
Independent variable¶	**x (SD)**	**B**	**p**	**x (SD)**	**B**	**p**	**p^{Manova}**	**η^2**
Where (s)he lives†								
Village	3.03 (0.41)	0.72	<0.001	16.32 (0.78)	0.33	<0.001	<0.001‡	0.07
Township	3.04 (0.37)			16.32 (0.82)				
Town	2.70 (0.26)	0.73	<0.001	15.60 (0.60)	0.34	<0.001		
Perception of income status†								
Income less than expenses	2.88 (0.39)	-0.28	0.005	15.91 (0.78)	-0.94	<0.001	<0.001	0.06
Income equals expense	2.96 (0.39)			16.11 (0.78)				
Income more than expenses	3.16 (0.33)	-0.20	0.012	16.85 (0.69)	-0.74	<0.001		
Frequency of hospitalization†								
No	3.00 (0.38)			16.20 (0.76)				
Once	3.06 (0.38)	0.29	0.012	16.40 (0.82)	0.65	0.006	<0.001	0.06
Twice	2.74 (0.34)	0.34	0.003	15.78 (0.76)	0.86	<0.001		
At least three times	2.72 (0.36)	0.03	0.823	15.55 (0.71)	0.24	0.361		
Dietary compliance								
Yes	3.09 (0.40)	0.24	<0.001	16.43 (0.80)	0.50	<0.001	<0.001	0.11
No	2.85 (0.35)			15.92 (0.76)				
Regular health check up								
Yes	3.14 (0.37)	0.39	<0.001	16.52 (0.76)	0.77	<0.001	<0.001	0.26
No	2.75 (0.30)			15.75 (0.68)				
Dizziness								
Yes	2.78 (0.39)	-0.22	0.011	15.75 (0.84)	-0.49	0.005	0.017	0.04
No	3.00 (0.39)			16.24 (0.80)				

¶Statistically significant variables
†Bonferroni (post-hoc test)
‡Pillai's Trace, SD: Standard deviation

In the current study, the QoL of the study population was determined to be moderate. In addition, the comfort levels of the older people with CVDs were found to be closely associated with their QoL. The increased physical comfort also elevated their satisfaction level with respect to health and function. Improvement in the psycho-spiritual, environmental, and socio-cultural comfort levels increased the satisfaction levels with respect to their psychosocial/spiritual aspects and family-related life. Moreover, both correlation and multivariate analyses revealed that the same set of factors affected both comfort and QoL. Rural life, high-income perception, dietary adherence, and routine health control were associated with good QoL and comfort. On the contrary, increased hospitalization and dizziness reduced the QoL and comfort level. Socio-economic status and lifestyle preferences were the differentiating variables for comfort and QoL, as well as the variables associated with the disease.

In contrast to our findings on the factors affecting comfort, Nural and Alkan (24) identified that sufficient communication by physicians, education level, and having a companion were related to the comfort level. On the other hand, in agreement with our findings, Durmaz et al. (35) reported that marital and financial status, history of myocardial infarction, and difficulty in daily life activities were the main factors affecting the QoL of CAD patients. In a systematic review focusing on the QoL of cardiac patients, gender, age, educational status, marital status, number of hospitalizations, and duration of disease diagnosis were found to affect their QoL (36).

Several factors might affect the comfort level and QoL of older people with CVDs. Lifelong health habits, cardiac risk factors, comorbidities, psychosocial structure, and the interaction of culture are found to be responsible for the physiological changes in an individual with advancing age (37). The previous studies reported that the health care needs of elderly patients became more complicated with age-related biopsychosocial changes (38,39). CVDs increase also usually morbidity and mortality in older people. Among CVD cases, the patients with acute conditions usually warrant hospitalization, regardless of the presence of a chronic illness (37). It suggests that the need for hospitalization arises from the deterioration in physical health associated with the exacerbation of symptoms in acute cases. In addition, hospitalization is often an unpleasant experience and can increase vulnerability in the elderly, making them more susceptible to pain and discomfort (40). Moreover, conditions that require urgent invasive intervention, such as acute myocardial infarction, pose more danger to older people than young adults. Even with new and advanced treatment options, the potential non-cardiac health-related problems in older people with CVDs

might limit the treatment options or increase the risk of adverse effects associated with treatment (37). Furthermore, dizziness, which is considered a geriatric syndrome, introduces additional problems such as falls, obstacles in activities of daily living, and poor QoL (41). Even after discharge from the hospital, the living standards and health-related life choices of cardiac patients can affect their comfort levels.

Thus, when considering the heterogeneous nature of aging, comfort requirements that are often neglected and not properly met must be taken into account (40). This study can offer an opportunity to fill in the gaps in the care delivery of older people with CVDs. It is important for the nurses to more closely monitor the unmet needs related to care, as they represent the largest group among health professionals (42). Therefore, more studies focusing on the QoL and comfort levels of older people with CVDs are warranted as they might provide support to the nurses and help them implement evidence-based practices in patient care.

Study Limitations

The study had several limitations. First, data were obtained from a single center and cannot be generalized to all older people with CVDs. In addition, the indiscriminate inclusion of all cardiac conditions may have prevented the achievement of standardized measurement results. This disappointment could have been remedied by comparative analyzes of results for different CVDs. Second, all data used here are self-reported and may therefore be biased. We are faced with the fact that each individual's QoL and comfort needs and perceptions are different. More clinical research, including thematic analyzes, is needed to better explain and understand these parameters.

Conclusion

Our findings showed that older people with CVDs scored well in terms of both overall as well as sub-dimensions of comfort. However, the QoL was moderate for all sub-dimensions. Physical, psycho-spiritual, environmental, and socio-cultural comfort was found to be associated with QoL. The location of residence, perception of income status, frequency of hospitalization, dietary adherence, routine health control, and dizziness were independently associated with the general comfort and QoL. It is important to determine the comfort levels and QoL of older people with CVDs by using valid and reliable measurement tools. In addition, the factors affecting both comfort levels and QoL should be identified, and evidence-based initiatives should be implemented to further improve these aspects. Thus, more quantitative and qualitative studies are required to determine the cardiovascular comfort and QoL and to devise patient empowerment programs with the active participation of patients and their relatives in cardiovascular rehabilitation programs.

Ethics

Ethics Committee Approval: Study approval was obtained from the Institutional Ethics Review Board (Bolu Abant İzzet Baysal University Clinical Researches Ethics Review, registered number 2018/96). This study was conducted in adherence to the principles of the Declaration of Helsinki.

Informed Consent: The study was based on volunteerism and beforehand, the participants were informed about the procedure and their written consent was obtained.

Peer-review: Externally peer-reviewed.

Authorship Contributions

Concept: Ş.D.E., A.A.Y., Design: Ş.D.E., A.A.Y., Data Collection or Processing: Ş.D.E., E.G.Ş., Analysis or Interpretation: Ş.D.E., Literature Search: Ş.D.E., A.A.Y., E.G.Ş., Writing: Ş.D.E., A.A.Y., E.G.Ş.

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