



The Relationship between Perceived Social Support and Postoperative Comfort in Coronary Artery Bypass Graft: A Cross-Sectional Study in Türkiye

Aysel Dogan¹, Veli Esref Karasu², Batuhan Tascioglu³, Onur Kotluk³, Zuleyha Cirik³

¹Toros University, Faculty of Health Science, Department of Nursing, Mersin, Türkiye

²Necip Fazil City Hospital, Department of Cardiovascular Surgery, Kahramanmaraş, Türkiye

³Toros University, Faculty of Health Science, Nursing 4th year Student, Mersin, Türkiye

Content of this journal is licensed under a Creative Commons Attribution-NonCommercial-NonDerivatives 4.0 International License.



Abstract

Aim: This study examined the relationship between perceived social support and comfort in coronary artery bypass graft patients.

Material and Method: This is a descriptive and cross-sectional study. The study was conducted with 250 patients hospitalized for CABG surgery in a public hospital in southern Türkiye between April 1, 2022 - April 1, 2023. Research data were collected using a personal information form, the Multidimensional Perceived Social Support Scale (MSPSS), and the General Comfort Questionnaire (GCQ). The principles of the Declaration of Helsinki were adopted at every stage.

Results: A statistically significant difference was found between the participants' MSPSS score averages according to having children, marital status, and income level ($p < 0.05$). A significant difference was found between the participants' average GCQ scores according to marital status, having children, age, profession, and previous surgery history ($p < 0.05$). The patients' mean MSPSS total score is 69.67 ± 21.91 and their GCQ total mean score is 2.93 ± 0.36 . A moderate positive correlation was found between the MSPSS and the GCQ perceived by the patients ($r = 0.495$, $p < 0.001$).

Conclusion: It is understood that strengthening patients' social support systems are important in increasing comfort. For this reason, during surgical care, nurses should ensure that patients receive support from social resources in addition to professional nursing care to increase patient comfort.

Keywords: Care, coronary artery bypass surgery, education, nurse, social support, society

INTRODUCTION

It is reported that ischemic heart disease, defined as coronary artery disease (CAD), remains at the top of the list of deaths all over the world, as in our country (1-3). Coronary artery bypass graft (CABG) is the most used method in the surgical treatment process of CAD (4). The frequency of the disease also increases the frequency of surgical operations. Surgery aims to reduce the possibility of coronary ischemia and myocardial infarction (MI) and to increase exercise tolerance (5).

It has been stated that individuals need social connections and social support to manage their anxiety, fear, and depression after surgery. It is important to get support from children, friends, and relatives rather than a single source of support such as a partner (6,7). The fact that the sick individual distances himself from society and family, that is, experiences social isolation, causes him to stay in the hospital longer than necessary. Long-term

hospitalization affects the individual's depression and recovery after discharge, causing the individual to return to the hospital (8-11). Patients who have strong ties with their family, relatives, friends, and other elements of society recover faster in the perioperative period and have a better quality of life. It has been reported that high perceived social support in patients is effective in coping with postoperative depression and increases the patient's comfort level (12).

Comfort, known as comfort in daily life, is one of the indispensable preferences of the individual's life and is a desired result of nursing care in the perioperative period. The goals of nursing care are to recognize the indication, course, or possible complications of any disease early and take precautions, or to provide treatment and care for the individual and social problems of this disease as early as possible (13,14). Surgical procedures can cause deterioration in comfort as it is a trauma that affects all aspects of patients undergoing surgical procedures

CITATION

Dogan A, Karasu VE, Tascioglu B, et al. The Relationship between Perceived Social Support and Postoperative Comfort in Coronary Artery Bypass Graft: A Cross-Sectional Study in Türkiye. *Med Records*. 2024;6(3):419-25. DOI:1037990/medr.1523158

Received: 27.07.2024 **Accepted:** 27.08.2024 **Published:** 12.09.2024

Corresponding Author: Aysel Dogan, Toros University, Faculty of Health Science, Department of Nursing, Mersin, Türkiye

E-mail: aysel.dogan@toros.edu.tr

(14). In a study, it was reported that the comfort level of unmarried patients was lower than married patients, and since divorced people lost the social support of the family, surgical intervention triggered problems that negatively affected comfort (15).

It has been reported that family support is effective in reducing symptoms in individuals who have open heart surgery. It has also been reported that there is a relationship between social support received after birth and postpartum comfort, and as the level of social support increases, postpartum comfort increases. Accordingly, we can think that the result obtained indicates that perceived comfort affects recovery in the postoperative periods of other diseases (16,17). One study reported that social isolation and lack of social support were determinants of CAD incidence and mortality, and social support increased survival in CABG (12).

In this context, social support is a two-way process; It is a source of interaction that provides comfort, help, and encouragement. According to the results we have obtained so far, no study has been found or reached examining the relationship between perceived social support and comfort level in individuals undergoing open heart surgery. This study is expected to contribute to the literature in this sense. This study was conducted to examine the relationship between perceived social support and postoperative comfort in CABG patients.

MATERIAL AND METHOD

Study Type

This study was conducted as descriptive and cross-sectional.

Study Group

The study population consisted of patients hospitalized for CABG surgery at Mersin City Training and Research Hospital between April 1, 2022 - April 1, 2023. The sample size in the study was "G. With the "Power 3.1.9.2" program, 237 patients were determined with the assumption of $1-\beta=0.99$ power and $\alpha=0.01$ error level and effect size $f=0.3$ (18). The study was conducted with 250 patients who met the inclusion criteria.

Research Inclusion Criteria

Patients who are hospitalized in the cardiovascular surgery clinic, are 18 years of age or older, are oriented to person, place, and time, do not have a condition that prevents them from communicating or have a psychiatric problem, and accept the research.

Study data were collected by assistant researchers using the face-to-face interview method at Mersin city hospital between April 1, 2022 - April 1, 2023. It took approximately 10-15 minutes to fill out the survey form.

Dependent and Independent Variables

The independent variables of this research are age, gender, department, income, and marital status. The dependent variables are the Multidimensional Perceived

Social Support Scale (MSPSS) and General Comfort Questionnaire Scale (GCQ).

Procedures

Research data were collected with a personal information form, Multidimensional Perceived Social Support Scale, and General Comfort Questionnaire.

Personal Information Form: It consists of a total of 10 questions regarding the sociodemographic information of the patients, including age, gender, personal information form, marital status, having children, education, profession, income level, previous surgery history, and whether there is an accompanying person in the hospital (9,11,13,16,17).

Multidimensional Perceived Social Support Scale (MSPSS): The scale was developed by Zimet et al. (1988) and its Turkish validity and reliability were determined by Eker and Arkar (1995). The scale consists of 12 items and is a 7-point Likert type. The scale includes Family (items 3, 4, 8, 11), Friend (item 6, 7, 9, 12) and A Special Person (item 1, 2, 5, 10). It has three sub-dimensions: The subscales are independent of each other and give the total score that includes all subgroups of the scale. The minimum score from the scale is 12 and the maximum score is 68. A high score indicates that the perceived social support is high. The Cronbach's alpha value of the scale varies between 0.77 and 0.92 (19,20). In this study, Cronbach's alpha value for the total scale was determined as 0.89, and Cronbach alpha values of the scale sub-items were found between 0.71 and 0.73.

General Comfort Questionnaire (GCQ): The scale was developed by Kolcaba (1992), and its Turkish validity and reliability study was conducted by Kuğuoğlu and Karabacak (2004). It was created by taking as a guide the taxonomic structure of three levels and four dimensions that constitute the theoretical elements of comfort. The scale is a four-point Likert type (1=strongly agree, 4=strongly disagree) and consists of 48 items. The negative items in the scale are reverse-coded and summed with the positive items. The lowest score that can be obtained from the scale is 48 and the highest is 192. The average value is determined by dividing the calculated total score by the number of scale items. A high score indicates a high level of comfort. The Cronbach alpha value of the scale was calculated as 0.88 (21,22). In this study, Cronbach's alpha value for the total scale was determined as 0.81. Cronbach alpha values of the scale sub-items were found between 0.71 and 0.78.

Statistical Analysis

In the research, data were evaluated using the SPSS 25.0 statistical program. The normality test was evaluated with Kolmogorov-Smirnov and it was determined that the data did not comply with normal distribution. For the data, descriptive statistics including percentage, frequency, mean, standard deviation, minimum and maximum values, as well as Kruskal-Wallis and Mann-Whitney U tests in independent groups were used. Spearman Correlation analysis was used to measure the relationship between the total and subscales of MSPSS and GCQ. Dunn's test, one of the post-hoc multiple comparison tests, was used

to determine which group the independent variables' significance came from. Internal consistency Cronbach's alpha coefficient was calculated, and the p significance level was $p < 0.05$.

Ethical Considerations

Toros University Scientific Research and Publication Ethics Committee (No: 2022/94) and institutional permission were obtained to conduct the research. Before data was collected, the purpose of the study was explained to the patients, and their written consent was obtained. The research was planned and conducted following the Principles of the Declaration of Helsinki.

RESULTS

The average age of the patients is 66.33 ± 9.70 , 44.8% are between the ages of 65 - 74, 74.0% are male, 94.4% are

married, 93.2% have children, 51.6% are primary school graduates, 32.0% are retired, % It was determined that 58.8% of the patients had a medium income level, 58.8% had a history of surgery, and 48.8% were accompanied by a child (ren) in the hospital. A statistically significant difference was determined between the patients' mean MSPSS total scores according to their marital status, having children, and income level ($p < 0.05$). In the advanced analysis, a significant difference was found between those with good income and those with poor income ($p < 0.05$) for MSPSS. A significant difference was found between the patients' average GCQ scores according to age, marital status, having children, profession, and previous surgery history ($p < 0.05$). In the advanced analysis, for GCQ, 32 - 50 years of age and ≥ 75 years of age ($p < 0.05$); Significance was determined between civil servants and those in other professional groups ($p < 0.05$) (Table 1).

Table 1. Comparison of patients' sociodemographic characteristics and MSPSS and GCQ total score averages (n=250)						
		n (%)	MSPSS Total		GCQ Total	
			Mean \pm SD	Statistic/p	Mean \pm SD	Statistic/p
Age 66.33 \pm 9.70, Min.=32, Maks.=90	32–50 age (A1)	17 (6.8)	75.76 \pm 17.73	*KW=6.473 p=0.091	2.99 \pm 0.27	KW=12.689 p=0.005 A1–A4/0.003
	51–64 age (A2)	74 (29.6)	70.40 \pm 22.39		2.95 \pm 0.38	
	65–74 age (A3)	112 (44.8)	69.94 \pm 21.83		2.83 \pm 0.32	
	≥ 75 age (A4)	47 (18.8)	65.68 \pm 22.67		2.78 \pm 0.41	
Gender	Famale	65 (26.0)	75.43 \pm 14.93	**Z=-1.826 p=0.068	3.00 \pm 0.23	Z=-1.181 p=0.238
	Male	185 (74.0)	67.65 \pm 23.59		2.91 \pm 0.39	
Mariatal status	Married	236 (94.4)	70.85 \pm 20.86	Z=-2.924 p=0.003	2.95 \pm 0.35	Z=-2.649 p=0.008
	Single	14 (5.6)	49.85 \pm 29.79		2.66 \pm 0.43	
Having children	Yes	233 (93.2)	70.84 \pm 20.89	Z=-2.580 p=0.010	2.95 \pm 0.34	Z=-2.645 p=0.008
	No	17 (6.8)	53.70 \pm 29.23		2.64 \pm 0.45	
Education level	Illiterate	68 (27.2)	64.13 \pm 24.33	KW=6.011 p=0.111	2.86 \pm 0.42	KW=1.726 p=0.631
	Primary education	129 (51.6)	72.02 \pm 20.16		2.96 \pm 0.32	
	High school	40 (16.0)	69.82 \pm 23.30		2.94 \pm 0.40	
	\geq University	13 (5.2)	74.92 \pm 17.27		2.97 \pm 0.21	
Job	Housewife (A1)	53 (21.2)	75.67 \pm 15.28	KW=10.556 p=0.061	2.99 \pm 0.24	KW=11.849 p=0.037 A3–A6/0.025
	Worker (A2)	26 (10.4)	67.50 \pm 21.28		2.90 \pm 0.33	
	Officer (A3)	23 (9.2)	71.69 \pm 23.35		3.05 \pm 0.39	
	Self-employed (A4)	26 (10.4)	71.80 \pm 23.14		2.91 \pm 0.43	
	Retired (A5)	80 (32.0)	69.83 \pm 20.40		2.96 \pm 0.32	
	Other* (A6)	42 (16.8)	60.71 \pm 28.04		2.76 \pm 0.46	
Economic status	Ggood (A1)	54 (21.6)	72.88 \pm 21.34	KW=6.190 p=0.045 A1–A3/0.039	2.94 \pm 0.35	KW=0.086 p=0.958
	Moderate (A2)	147 (58.8)	70.18 \pm 22.19		2.93 \pm 0.35	
	Poor (A3)	49 (19.6)	64.61 \pm 21.31		2.91 \pm 0.40	
Previous surgical experience	Yes	147 (58.8)	70.89 \pm 20.60	Z=-0.658 p=0.510	2.89 \pm 0.35	Z=-2.810 p=0.005
	No	103 (41.2)	67.93 \pm 23.66		2.99 \pm 0.37	
Relationship	Wife	74 (29.6)	68.45 \pm 21.86	KW=8.870 p=0.114	3.00 \pm 0.29	KW=8.084 p=0.152
	Childs	122 (48.8)	70.85 \pm 21.30		2.91 \pm 0.38	
	Siblings	11 (4.4)	59.27 \pm 26.67		2.76 \pm 0.39	
	Friend	7 (2.8)	71.71 \pm 16.41		2.98 \pm 0.35	
	Relative	28 (11.2)	76.21 \pm 18.30		2.95 \pm 0.40	
	Paid employee	8 (3.2)	52.62 \pm 31.66		2.69 \pm 0.40	

SD: standard deviation, MSPSS: Multidimensional Perceived Social Support Scale, GCQ: General Comfort Questionnaire; *KW=Kruskal-Wallis test, **Z=Mann-Whitney U test

The mean MSPSS total score of the patients was 69.67±21.91, the mean scores of the Family, Friend, and Special Person subscales were 25.14±5.90, 22.02±9.17, and 22.50±8.96, respectively; the mean total score of the GCQ was 2.93±0.36, the mean scores of the Physical subscale were 31.26±5.95, the mean scores of the Psychospiritual subscale were 41.48±5.44, Environmental sub-dimension mean score 37.15±5.10, Sociocultural sub-dimension mean score 31.10±5.04, and Relief level mean score 46.53±6.12, Relaxation level mean score 49.93±7.05, Superiority level mean score 44.63±6.83 (Table 2).

Table 2. Distribution of the mean scores and minimum-maximum values of the total and sub-dimensions of the MSPSS and the GCQ

	Mean	SD	Received (Min-Max)	Available (Min-Max)
MSPSS total	69.67	21.91	15-84	12-84
Family	25.14	5.90	4-28	4-28
Friends	22.02	9.17	4-28	4-28
A special person	22.50	8.96	4-28	4-28
GCQ total	2.93	0.36	1.58-3.54	1-4
Physically	31.26	5.95	15-45	12-48
Psychospiritual	41.48	5.44	23-52	13-52
Environmental	37.15	5.10	21-48	14-56
Socio-cultural	31.10	5.04	13-38	10-40
Refreshment	46.53	6.12	26-58	16-64
Relaxation	49.93	7.05	26-65	17-68
Superiority	44.63	6.83	23-59	15-60
GCQ total score	141.10	17.16	81-170	48-192

SD: standard deviation, MSPSS: Multidimensional Perceived Social Support Scale, GCQ: General Comfort Questionnaire

A moderate positive correlation was found between perceived MSPSS and GCQ ($r=0.495$, $p<0.001$). In other words, as social support increases in patients, the comfort level also increases. A correlation was found between MSPSS and GCQ sub-dimensions (Table 3).

Table 3. Correlational Distribution of MSPSS, GCQ total and subscales

		1	2	3	4	5	6	7	8	9	10	11
1. MSPSS total	r*	1										
	p											
2. Family	r	0.750	1									
	p	<0.001										
3. Friends	r	0.981	0.689	1								
	p	<0.001	<0.001									
4. A special person	r	0.958	0.662	0.944	1							
	p	<0.001	<0.001	<0.001								
5. GCQ total	r	0.495	0.540	0.483	0.434	1						
	p	<0.001	<0.001	<0.001	<0.001							
6. Physically	r	0.363	0.394	0.350	0.328	0.858	1					
	p	<0.001	<0.001	<0.001	<0.001	<0.001						
7. Psychospiritua	r	0.459	0.466	0.444	0.419	0.792	0.609	1				
	p	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
8. Environmental	r	0.160	0.250	0.173	0.111	0.546	0.367	0.190	1			
	p	0.011	<0.001	0.006	0.081	<0.001	<0.001	0.003				
9. Socio-cultural	r	0.633	0.582	0.610	0.574	0.748	0.558	0.675	0.152	1		
	p	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.016			
10. Refreshment	r	0.451	0.403	0.440	0.407	0.749	0.645	0.615	0.364	0.637	1	
	p	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
11. Relaxation	r	0.528	0.531	0.531	0.489	0.856	0.713	0.762	0.347	0.783	0.526	1
	p	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
12. Superiority	r	0.258	0.399	0.256	0.206	0.777	0.720	0.548	0.666	0.432	0.361	0.555
	p	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

MSPSS: Multidimensional Perceived Social Support Scale, GCQ: General Comfort Questionnaire; *Spearman's correlation test

DISCUSSION

To examine the relationship between perceived social support and comfort in patients diagnosed with CAD and undergoing CABG surgery, this cross-sectional study was conducted. Ensuring patient comfort in the perioperative process is one of the main goals expected to be achieved in the nursing care process. By increasing the comfort of the individual, the individual is empowered and included in the treatment process (13,23,24). The surgical nurse utilizes the physical, psychospiritual, environmental, and sociocultural areas in the taxonomic structure of the comfort theory to increase the comfort of the individual in the perioperative process. The relationship between an individual's perceived social support and comfort level was examined in this study.

In this study, it was determined that the social support perceived by the patients was above the moderate level. It was determined that the mean score of the family subscale of the scale (25.14 ± 5.90) was higher than the friend and special person subscales. According to this result, our study group receives support from more families. A meta-analysis similarly noted that patients generally reported moderate to strong social support (7). In studies conducted in our country with a similar sample group, patients' perceived social support was found to be high, similar to our findings (1,25). It is thought that the supportive traditional family structure of Turkish society is effective in this result (26,27). It was determined that the mean MSPSS total score of the patients included in the study who were married and had children was significantly higher. Having a partner, happier marriages, increased physical activity and more social interaction have been reported to be effective in increasing comfort. In our society, individuals want to receive support from their first-degree relatives. While caregivers are preferred in developed countries, traditional family care is preferred in Türkiye (26,27).

In this study, the patients' comfort levels were found to be above the moderate level. Similarly, studies conducted in Türkiye support our findings (13,28-31). CABG is considered a risky surgery due to the emotional, cognitive, and physiological reactions that can be seen after surgery (1,2,13). For this reason, during the postoperative period, patients are taken to single rooms and, whenever possible, they are provided with support from at least two relatives. This approach is thought to be effective in this result. It was determined that as the age of the patients increased, the average GCQ score decreased, and the comfort level of the younger age group was higher. There are results supporting the findings of this study (28). Contrary to our findings, there are studies reporting that there is no relationship between age and GCQ (26,31,32). It is thought that these contradictory results among the research findings should be examined by considering the effect of different demographic data.

Among the patients included in the study, it was found that the mean total score of the patients who were married

and had children was higher. Although there is a study that supports our findings (15), there are also studies that state the opposite of our findings (28,31). It is thought that the fact that the majority of the study participants received support from their families and children was effective in this result. It was determined that the average GCQ scores of patients with no previous hospital history were significantly higher. A study similarly reported that the hospital experience negatively affects overall comfort (27). In one study, those with hospital experience found high GCQ scores (32). Since detailed information regarding previous hospital experience (such as the reason for admission, type of surgery, accompanying relative, and duration of hospital stay) was not investigated in this study, the results are difficult to interpret.

This study shows that as social support increases, the comfort level also increases. Kok et al. (2023) examined the correlation between social support and preoperative anxiety and reported that strong social support, although weak, was significantly associated with reduced anxiety (7). Although not similar to this study group, Yıldırım and Tanrıverdi (2021) reported that there was a significant relationship between social support and life satisfaction in their study with university students (33). A study reported that social support has a positive effect on improving the quality of life, which also significantly affects comfort, in individuals who have undergone CABG (34). Depending on the recovery process after CABG and the patient's condition, the type and level of support requests may vary. After CABG, patients experience psychological problems due to multiple post-operative health problems. In this process, individuals need to be supported for rapid recovery and adaptation to medication. Social support can improve psychological findings by alleviating emotional stressors and facilitate the postoperative psychological adjustment and recovery process (34). With various nursing interventions, patients' comfort level and even their independence after surgery can be increased (32). One of the aims of nursing care is to strengthen the individual. The individual who receives the support he needs in an acute process will be stronger. Nurses should consider all possibilities necessary to ensure this (15). One limitation of such correlational studies is their inability to demonstrate causality. Future research should be conducted with a larger sample of participants from different parts of the country and with a design that investigates cause-and-effect relationships.

CONCLUSION

The main conclusion that can be drawn from this study is that the patients' perceived social support and general comfort levels are above average. It was determined that the perceived social support and general comfort scores of patients who were married and had children were higher, and that comfort decreased as age increased. It was determined that as patients' social support increased, their comfort level also increased. In this context, it may be recommended to ensure that individuals, especially those who live alone and are of advanced age, benefit

from social support resources by providing appropriate conditions in hospitals during the perioperative period. Through counseling, nurses can provide information to patients and their relatives to increase the social support and comfort of patients and ensure the participation of families in patient care. In addition, by using social support networks, a positive contribution can be made to increasing the comfort of the individual in the adoption, care, and management of a healthy lifestyle in the perioperative period.

In future studies, the relationship between the level of volunteering of relatives accompanying the patient and the comfort perceived by the patients can be examined. In future experimental studies, the effect of artificial intelligence in supporting individuals without relatives can be investigated.

The summary of this study was presented as an oral presentation at the 5th International 13th National Turkish Surgical and Operating Room Nurses Congress (16-19 November 2023).

Financial disclosures: This research was supported by Toros University Scientific Research Projects Unit TORLAD/25.10.2022).

Conflict of interest: The authors have no conflicts of interest to declare.

Ethical approval: The approval of Toros University Scientific Research and Publication Ethics Committee was obtained (Approval number: (No: 2022/94). All procedures were performed according to the ethical standards of the National Research Committee and the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Acknowledgment: The authors would like to thank Nurse Esen Dolu, who contributed to the data collection process of this study, Fatma Karasu, who contributed to data analysis and interpretation, and the patients who voluntarily participated in the study and answered the survey and scale questions.

REFERENCES

- Koçaşlı S, Kanan N. Physical and psychosocial recovery status of patients after open heart surgery. Genel Sağ Bil Derg. 2020;2:146-58.
- Malakar, Choudhury D, Halder B, et al. A review on coronary artery disease, its risk factors, and therapeutics. J Cell Physiol. 2019;168:12-23.
- WHO: Monitoring health for the SDGs, sustainable development goals. Geneva: World Health Organization. <https://www.who.int/publications/i/item/9789240094703> access date 25.05.2024
- Roth GA, Mensah GA, Johnson CO, et al. Global burden of cardiovascular diseases and risk factors, 1990–2019: update from the GBD 2019 study. J American College Cardio. 2020;76:2982-3021. Erratum in: J Am Coll Cardiol. 2021;77:1958-9.
- Mavili İ, Şahutoğlu C, Pestilci Z, et al. Early complications and associated etiological factors after coronary artery bypass grafting surgery. GKAD. 2016;22:16-23.
- Koivula M, Paunonen-Ilmonen M, Tarkka MT, et al. Social support and its relation to fear and anxiety in patients awaiting coronary artery bypass grafting. J Clin Nurs. 2002;11:622-33.
- Kok XLF, Newton JT, Jones EM, et al. Social support and pre-operative anxiety in patients undergoing elective surgical procedures: a systematic review and meta-analysis. J Health Psych. 2023;28:309-27.
- Balanuye B, Bulut H. Post-operative adaptation process of patients undergoing coronary artery bypass graft surgery. Başkent Üni Sağ Bilim Fak Derg. 2021;6:232-43.
- Diğın F, Karabiber M. Determination of anxiety and depression levels and affecting factors in patients who will have coronary artery bypass graft surgery. Gevher Nesibe J Med Health Sci. 2023;8:1070-8.
- Richter D, Guasti L, Walker D, et al. Frailty in cardiology: definition, assessment and clinical implications for general cardiology. A consensus document of the council for cardiology practice (CCP), association for acute cardiovascular care (ACVC), association of cardiovascular nursing and allied professions (ACNAP), European association of preventive cardiology (EAPC), European heart rhythm association (EHRA), council on valvular heart diseases (VHD), council on hypertension (CHT), council of cardio-oncology (CCO), working group (WG) aorta and peripheral vascular diseases, WG e-cardiology, WG thrombosis, of the European society of cardiology, European primary care cardiology society (EPCCS). Eur J Prev Cardiol. 2022;29:216-27.
- Sorensen EA, Wang F. Social support, depression, functional status, and gender differences in older adults undergoing first-time coronary artery bypass graft surgery. Heart Lung. 2009;38:306-17.
- Castro MDL, Alves M, Papoila AL, et al. One-year survival after cardiac surgery in frail older people—social support matters: a prospective cohort study. J Clin Med. 2023;12:4702.
- Doğan A, Saritaş S. The effects of neuro-linguistic programming and guided imagery on the pain and comfort after open-heart surgery. J Card Surg. 2021;36:2389-97.
- Krinsky R, Murillo I, Johnson J. A practical application of Katharine Kolcaba's comfort theory to cardiac patients. Applied Nurs Res. 2014;27:147-50.
- Seydefatemi N, Rafii F, Rezaei M, Kolcaba K. Comfort and hope in the preanesthesia stage in patients undergoing surgery. J PeriAn Nurs. 2014;29:213-20.
- Gök F, Yeşilyaprak T. Relationship between the perception of self-efficacy and early post-operative symptoms in patients undergoing coronary artery bypass graft surgery with median sternotomy. MAS J Appl Sci. 2022;7:910-21.
- Yaşar H, Dal NA. The relationship between perceived social support during pregnancy and postpartum comfort. Sağ Bil Derg. 2022;31:29-35.
- Faul F, Erdfelder E, Buchner A, Lang AG. Statistical power analyses using G* Power 3.1: tests for correlation and regression analyses. Beh R Methods. 2009;41:1149-60.

19. Zimet GD, Dahlem NW, Zimet SG, et al. The multidimensional scale of perceived social support. *J Personality Assessment*. 1988;52:30-41.
20. Eker D, Arkar H. Factor structure, validity and reliability of the multidimensional perceived social support scale. *Türk Psik Derg*. 1995;10:45-55.
21. Kolcaba KY, Kolcaba RJ. An analysis of the concept of comfort. *Journal of Advanced Nursing*, 1991;16:1301-10.
22. Kuşuoğlu S, Karabacak Ü. Turkish version of the general comfort questionnaire. *Florence Nightingale J Nurs*. 2008;16:16-23.
23. Özkan ZK, Diğın F, Koç E. Kraniyal ve spinal cerrahi uygulanan hastaların konfor düzeyi ve etkileyen faktörler. *Sağ Yaşam Bil Derg*. 2024;6:1-6.
24. Üstündağ H, & Aslan FE. Perianestezi Konfor Ölçeğinin Türkçeye uyarlaması. *Türkiye Klinikleri J Nurs Sci*. 2010;2:94-9.
25. Köseoğlu Örnek Ö, Günaydin H, Kolaç N, et al. Anxiety levels of cardiovascular surgery patients: investigation of coping methods, self-efficacy level and social support mechanisms: descriptive and relational res. *Türkiye Klin Cardiovas Sci*. 2022;34:35-42.
26. McCann WD, Hou XY, Stolic S. et al. Predictors of psychological distress among post-operative cardiac patients: a narrative review. *Healthcare*. 2023;11:2721.
27. Tufan İ, Kılavuz A, Özgür Ö, et al. Atlas of gerontology in Turkey: Findings on elderly poverty and loneliness. *Geriatik Bil Derg*. 2019;2:1-7.
28. Bakır GK, Yurt S. Evaluation of the comfort level of patients undergoing surgical operations. *Sağlık ve Toplum*. 2020;20:158-65.
29. Jose L, Sams LM. A correlation study on patients satisfaction with their pain management and comfort level after open heart surgery in selected hospital at mangaluru. *Inter J Nurs Edu Res*. 2015;3:419-22.
30. Karabulut N, Aktas YY, Gurcayır D, et al. Patient satisfaction with their pain management and comfort level after open heart surgery. *Australian J Adv Nurs*. 2015;32:16-24.
31. Soltani E, Nomali M, Ghiyasvandian S, et al. Effect of listening to preferred music on general comfort level among patients underwent coronary artery bypass graft surgery: a randomized controlled trial. *J Med Res*. 2018;4:234-9.
32. Dolu İ, Demirtaş H, Çelik S. A prospective study on activities of daily living, comfort, body image, and cardiac symptoms in coronary artery bypass patients. *Pain Manag Nurs*. Published online May 07, 2024. doi: 10.1016/j.pmn.2024.04.014
33. Yıldırım M, Tanrıverdi FÇ. Social support, resilience and subjective well-being in college students. *J Positive School Psych*. 2021;5:127-35.
34. Kim H, Bae SH, Lim SH, et al. Predictors of health-related quality of life after coronary artery bypass graft surgery. *Sci Rep*. 2022;12:16119.