

Evaluating The Anger and Self-Care Ability Levels of Surgical Patients Experiencing Organ Loss

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Citation: Alptekin HM, Yıldız Fındık Ü. Evaluating the anger and self-care ability levels of surgical patients experiencing organ loss. CURARE - Journal of Nursing 2024;5:1-7. <https://doi.org/10.26650/CURARE.2024.1400974>

ABSTRACT

Objective: This study was conducted to assess the levels of anger and self-care ability among surgical patients following organ loss.

Material and Methods: The data of this descriptive study were collected from 60 patients who underwent mastectomy, gastrectomy, cholecystectomy, and thyroidectomy at the University Hospital, General Surgery Clinic of a state university between December 2016 and April 2017. A personal information form, the trait anger and anger expression scales, and the exercise of self-care agency scale were used to collect data. The scales used in the study were applied to the patients twice (before the operation and during the discharge period). The researcher collected the data by using the face-to-face interview technique.

Results: The mean age of the patients (n=60) was 54.6±13.2, 68% (n=41) were female, 90% (n=54) were married, and 65% (n=39) were literate. The results of the study showed that the level of trait anger was higher before the operation in patients undergoing thyroidectomy and after the operation in those undergoing gastrectomy (p<0.01). Anger levels increased in those undergoing gastrectomy and mastectomy and decreased in those undergoing thyroidectomy and cholecystectomy after the operation (p<0.01). In addition, the postoperative self-care agency of the patients undergoing cholecystectomy was high (p<0.05).

Conclusion: Organ loss increases the anger level of patients and decreases their self-care agency. Recommendations for the planning and implementation of nursing care practices to reduce the anger of surgical patients who experience organ loss and to increase their self-care agency must be put in place.

Keywords: Anger, nursing, self-care, surgery, surgical nursing

INTRODUCTION

Organ loss is the process of surgically removing an organ from the human body when it loses its function, becomes irreparably damaged, or poses a life-threatening situation for the patient (1,2). These surgical interventions, which are applied for various reasons such as cancer, trauma, and deformity, enhance the quality of life of individuals and prolong their life expectancy (1). The most common surgical procedures that result in organ loss are thyroidectomy, mastectomy, cholecystectomy, and gastrectomy. According to the latest statistics in Türkiye, 117,811 cholecystectomies, 21,928 thyroidectomies, 6,849 mastectomies, and 2,036 gastrectomy operations were performed in 2017 (3).

Surgical interventions that cause organ loss affect patients both physically and psychologically. For example, physical complications after mastectomy include pain, scarring, lymphedema, limitation in shoulder range of motion, muscle weakness, spinal deformation because of unilateral mastectomy, or change in body posture. Some of the psychological complications are negative thoughts about the image of women, problems arising from anxiety, depression, and depressive disorders, and negative body image. Organ loss is a trauma to which patients can react differently (4,5).

Kübler Ross describes patients' reactions to trauma, loss, and mourning in 5 phases, including denial, anger, bargaining, depression, and acceptance. The first phase is denial. This is

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Submitted: 06.12.2023 • **Revision Requested:** 19.12.2023 • **Last Revision Received:** 05.02.2024 • **Accepted:** 23.02.2024



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the stage in which the patients fail to face their grief and to realize the circumstances. They avoid confronting loss and its effects. Patients ask such questions as, "Is this true?" or "This didn't happen to me, did it?" (6,7). After denial, the second phase is anger. In that phase, patients' psychological adaptation has not yet occurred. Patients describe feelings of rebellion against their loss as anger. The most frequently asked question is "Why me?" If the feeling of anger is not removed, it can turn into depression in the long term. Patients who seem to accept organ loss and repress their anger might end up delaying the onslaught of emotions typically felt at this stage. After the bargaining phase, patients face their loss (6-8). In this phase, symptoms and signs of depression might be observed in patients. The final stage is the acceptance phase which is completed when patients acknowledge their loss and its conditions and return to the normal flow of life. The typical psychological adaptation of patients who accept their loss is actualized. If the patients can express their feelings, they typically pass the acceptance stage (9).

One of the feelings or reactions experienced by patients undergoing organ loss is anger, which arises from physiological conditions such as aches, pain, and fatigue. Anger is a human reaction that stems from undesirable outcomes, including disappointment, frustration, and feelings of incompetence (10). In addition, patients may express their feelings, such as uncertainty and fear about the operation or the post-operative process, through anger. In cases where anger is not relieved, patients may become depressed (11,12). Patients' perspectives on the operation and their psychological readiness for it affect the post-operative treatment and recovery process. In patients who have psychological or adaptation problems in the preoperative period, issues such as the development of complications after the operation, the application of more anesthesia, or an increase in the need for analgesics may be encountered (13,14). Patients undergo a challenging period, both physiologically and psychologically, which can hinder the healing process. During this time, the patients' self-care practices and nursing care can accelerate healing. Self-care agency is the individual's ability and willingness to maintain self-care (15). The self-care agency of patients is influenced by various factors, including education, socio-economic status, culture, age, health status, and anxiety (16,17).

Therefore, in nursing care applications for patients undergoing surgery, it is crucial to provide patient-specific care and evaluation with a holistic approach to address the physiological and psychological issues experienced during the healing process. Surgical nurses should actively consider patients' attitudes and concerns about organ loss and work towards enhancing their level of self-care (16,18).

The healing process will have a positive impact if surgical nurses consider the physiological and psychological reactions of their patients and if treatment is arranged according to their needs. This current research aims to assess the levels of anger and self-care among surgical patients experiencing organ loss.

METHOD

Aim and design of the study

This study was conducted with a descriptive design to assess anger and self-care ability levels in surgical patients who experienced organ loss.

Research questions

Does organ loss affect patients' anger levels?

Does organ loss have an impact on patients' self-care agency levels?

Is there an association between patients' organ loss, anger levels, and self-care agency?

Population and sample

The study group comprised patients who were hospitalized for planned gastrectomy, mastectomy, cholecystectomy, or thyroidectomy operations in the general surgery clinic of a university hospital. According to a study titled *The Relationship Between General Health State with Trait Anger Level and Anger Expression Style of Nurses* the standard deviation of trait anger was 3.05, and a sample of 56 was calculated for each group consisting of 14 people, with a 95% confidence range and 5% tolerance value (19). Since the most common resections in Turkey are gastrectomy, mastectomy, cholecystectomy, and thyroidectomy, these patients were included in the sample. Having agreed to participate, 60 patients consisting of 15 in each group were included in the study. The patients who volunteered to participate and who were included in the study were those undergoing gastrectomy, cholecystectomy, mastectomy, or thyroidectomy surgery, were 18 years of age or older, had normal levels of perception and comprehension, spoke Turkish, had total resection planned, and had elective surgery.

Data collection tools

Three data collection tools were used in the research. These are the personal information form, Trait Anger and Anger Expression Scales, and The Exercise of Self Care Agency Scale.

Personal Information Form: The personal information form used in the research is a data collection tool consisting of 9 questions. It was developed by the researcher to include information about the socio-demographic properties of patients (age, gender, marital status, education, work status, income status) and their health history (planned surgical operations, past surgical operations, and information about the person accompanying them at discharge).

Trait Anger and Anger Expression Scales: "Trait Anger and Anger Expression Scales" were used to assess patients' anger levels in the preoperative and postoperative periods. The scale developed by Spielberger et al. in 1983 consists of two main scales: T-anger and anger expression style. On the T-anger

scale, one is asked “how he feels in general”, while on the anger expression scale, one is asked “how often he behaves as mentioned.” The scale consists of a total of 34 items, which measure not the absence of anger but its existence. In the scale ranges, the scoring method is “none (1)”, “slightly (2)”, “fairly (3)”, and “completely (4)”. The first ten questions of the scale include items that measure the trait level of anger. The other 24 items are concerned with anger style. Eight items are related to the suppression of anger, eight are about expressing anger, and eight are regarding anger control. The lowest and highest scores in the trait anger subscale are 10 and 40, respectively. In each anger style subscale, the lowest score (anger-in, anger-out, anger control) is 8, and the highest is 32. In the trait anger subscale, the high scores indicate a high level of anger. The validity and reliability study of the scale was conducted by Ozer (20) in Turkey. Ozer obtained the alpha values of the trait anger scale as between 0.67-0.92, anger control 0.80-0.90, anger-out 0.69-0.91, and anger-in 0.58-0.76.

The Exercise of the Self-Care Agency Scale: This was used to evaluate the self-care agencies of patients in the postoperative period. It was developed by Kearney and Fleischer in 1979 and was adapted to Turkish society by Nahcivan (21) with a study of validity and reliability in 1993. The scale determines the self-care agency of individuals. The scale adjusted to Turkish society is a 5-point Likert-type with 35 items. Each statement consists of 5 options such as “It does not define me at all,” “It does not define me very much,” “I have no idea,” “It describes me a little,” and “It describes me very much.” On the Turkish scale, whereas items 3, 6, 9, 13, 19, 22, 26, and 31 are evaluated negatively, the remaining items are assessed positively. On the scale, positive statements are rated as 0, 1, 2, 3, and 4, and the negative statements as 4, 3, 2, 1, and 0, respectively. Whereas the lowest score is 35, the highest score is 140. The top score corresponds to the highest of the self-care agency. The test-retest reliability is 0.80, and internal consistency is 0.89 because of the validity and reliability of the scale study in chronic diseases (21).

Data collection

With the comfort of the patients in mind, the study data were collected in patients’ rooms at The University Hospital General Surgery Clinic. During data collection, a quiet environment was provided to eliminate external factors distracting patients’ attention. The purpose and method of the study were explained to patients by the researcher before the data were collected. Fifteen patients from different patient groups (mastectomy, gastrectomy, cholecystectomy, thyroidectomy) were selected, and a total of 60 patients were included in the study. The researcher collected the data in two steps with a face-to-face interview technique.

First step (1. Evaluation): After admission to the general surgery clinic, and while still in the preoperative period, the patients spent approximately 30 minutes filling out a personal information form in their rooms using a face-to-face interview technique. At the same time, the first evaluation of the anger

levels was carried out by using Trait Anger and Anger Expression Style Scales.

Second step (2. Evaluation): The patients were re-visited during the postoperative discharge. For approximately 40 minutes, using the face-to-face interview technique in their rooms, the patients re-applied their Trait Anger and Anger Expression Scales, and the second assessment of their anger levels was carried out. Following this, the Self-Care Agency Scale was applied. During the data collection period, each patient was interviewed face-to-face for 70 minutes.

Data analysis

The data obtained from the study were analyzed using SPSS (Statistical Package for Social Sciences) for the Windows 17.0 package program. The number, percentage, mean, and standard deviation were utilized as descriptive statistical methods to evaluate the data. The significance of the difference in terms of intergroup variables was examined by independent sample t-test, ANOVA, and Paired Samples tests. For the results, $p < 0.05$ was considered as statistically significant.

Ethical approval

Ethics committee permission was obtained from the relevant Trakya University School of Medicine Scientific Research Ethics Board (TÜTF-BAEK 2016/233: date: 02.11.2016 and decision number 17/10). Additionally, written permission was obtained from the Health Research and Application Centre’s Central Directorate. Before participating in the study, the patients were informed regarding the nature of the study, and verbal consent from all participants was obtained.

Limitations

The fact that the study could not be widened to include patients experiencing all types of organ loss (due to its being conducted in a hospital) is an indication of its limitation. Future studies could be enhanced by increasing the samples of groups and patients who experience organ loss.

RESULTS

An examination of the individual statistics of the 60 patients included in the study shows that the mean age of the patients was 54.6 ± 13.2 , and the age range varied between 23 and 83. 68% ($n=41$) of the patients were female, 90% ($n=54$) were married, and 65% ($n=39$) were literate (Table 1).

Trait anger levels increased ($t=9.068$, $p<0.001$ and $t=8.035$, $p<0.001$, respectively) in patients who underwent gastrectomy and mastectomy and decreased ($t=7.296$, $p<0.001$ and $t=6.223$, $p<0.001$, respectively) in patients who experienced thyroidectomy and cholecystectomy (Table 2).

Cholecystectomy patients had a high self-care agency compared to patients undergoing other types of organ loss ($F=70.34$, $p<0.001$) (Table 3).

Table 1. Individual characteristics of patients

Individual characteristics	Mean±SD	Range
Age	54.6±13.2	23-83
	n	%
Gender		
Female	41	68.3
Male	19	31.7
Marital status		
Single	6	10.0
Married	54	90.0
Education status		
Reader-writer	39	65.0
Primary	7	11.7
Education		
High school	10	16.7
University	4	6.7

n=Number, %=Percent. SD: Standard Deviation

A negative correlation ($r=-0.744$, $p<0.001$) between postoperative anger and self-care agency was obtained. In contrast, a positive correlation between the anger-control and self-care agency ($r=0.795$, $p<0.001$) was noticed. A negative interaction between anger-out and self-care agency and anger-in and self-care agency (respectively, $r=-0.684$ $p<0.001$, $r=0.486$ $p<0.001$) was observed (Table 4).

DISCUSSION

The study demonstrates that in the postoperative period, the anger level of patients increased in gastrectomy and mastectomy and decreased in thyroidectomy and cholecystectomy (Table 2). It is an acceptable situation for patients to experience anxiety and anger during the preoperative period. Due to the adverse impacts of operations, postoperative anxiety and depression may be manifested in patients. As a consequence of this, anger may be triggered (11-13).

In their study, Kheyran-Alnesa et al. (22) observed that patients who would undergo heart surgery had high preoperative anger levels, and there was a slight decrease in the control group after surgery. Pettersson et al. (23) reported that patients with colorectal cancer described their feelings, such as anger and fear, in interviews held before the operation. Macik (24) stated that after a mastectomy, patients' inner anger was

high and they felt anxious because the disease had occurred. Miller-Matero (25) determined that some patients felt anger after gastrectomy surgery. Tutuş and Saz (26) stated that thyroid gland diseases may cause angry outbursts in patients because they affect hormones. Rogers et al. (27) stated that patients with thyroid cancer experience some symptoms, and anger is one of them. The studies also revealed that patients having undergone surgical intervention are not only affected physically and but also have higher anger rates. In addition, surgeries such as gastrectomy and mastectomy are primarily performed due to cancer (28,29). This explains why patients express their anxiety about the postoperative process through anger. It is known that there are mood changes in people when the thyroid gland is suppressed (26). It is also thought that the reason for anger in patients undergoing cholecystectomy and thyroidectomy is related to the fear of surgery. The fact that the physiological and psychological effects on the human body of thyroidectomy and cholecystectomy are less severe when compared with mastectomy and gastrectomy may be associated with a decrease in postoperative anger levels.

The study shows that patients undergoing a cholecystectomy have higher self-care powers (Table 3). The low impact of surgery on the human body enables patients to maintain their self-care and cope with existing problems. Shahbaz et al. (18) determined that patients who underwent varicotomy had low levels of self-care agency. Candan Donmez et al. (30) determined that patients with lumbar disc hernias had a moderate self-care agency level. Firat and Öztunç (31) found that the postoperative self-care abilities of total laryngectomy patients in the control group were moderate. In their study, Güner and Kaymakçı (32) determined that the self-care agency level of patients who experienced a mastectomy was higher than those who experienced a gastrectomy. The follow-up process continues after gastrectomy and mastectomy surgeries. In addition, the discharge time is longer compared to cholecystectomy and thyroidectomy surgeries (33,34). The physical effects of gastrectomy and mastectomy on patients are higher. Based on all this, it can be seen that patients' self-care is lower after the operations, requiring more care and exercise (lymphedema exercises) or care tools (varicose socks, corset). A smooth and fast recovery process positively affects the patients' self-care agency. However, gastrectomy and mastectomy, which have high effects on the human body, have

Table 2. Effect of organ loss type on anger level

Trait Anger Scale	Preoperative (n:60)	Postoperative (n:60)	t	p
Surgical Procedure	Mean±SD	Mean±SD		
Gastrectomy	19.2±4.43	27.6±5.83	9.068	<0.001*
Mastectomy	20.7±5.16	26.4±6.44	8.035	<0.001*
Thyroidectomy	25.0±5.98	18.6±4.12	7.296	<0.001*
Cholecystectomy	24.0±5.42	18.1±3.34	6.223	<0.001*

* $p<0.01$; Independent Sample t-Test

Table 3. Effect of organ loss type on self-care agency

Surgical Procedure	Self-Care Agency		
	Mean±SD	F	p
Gastrectomy	68.5±16.1	70.34	<0.001*
Mastectomy	78.5±17.2		
Thyroidectomy	125±10.5		
Cholecystectomy	126±11.0		

*:p<0.05; ANOVA (Variance) Analysis

Table 4. Relationship between organ loss, anger and self-care agency in postoperative period

Trait Anger Scale and Self-Care Agency	Self-Care Agency	
	r	p
Trait Anger	-0.744**	<0.001
Anger Style		
Anger-Control	0.795**	<0.001
Anger-Out	-0.684**	<0.001
Anger-In	-0.486**	<0.001

*:p<0.05; **:p<0.01; Pearson Korelasyon

low self-care agency. The results suggest that their condition affects self-care agency in patients experiencing organ loss.

This study concluded that patients experiencing organ loss had decreased self-care agency as trait anger, anger-out, and anger-in levels increased, and the level of self-care agency increased as anger control increased (Table 4). Almonacid et al. (35) decided that anxiety and self-care were associated in patients with a laryngectomy; 97.5% of patients' self-care was low until the seventh postoperative day and they required care and help. Matero et al. (25) found that patients with feelings of anger, frustration, and depression after gastrectomy missed the 1-year follow-up appointments recommended by the hospital. Raharjo et al. (36) found that patients' stress levels increased after mastectomy and they became dependent on the support of caregivers when their self-care was evaluated. Having surgery affects patients both psychologically and physically. Patients who cannot manage the surgery process well get angry and express their feelings, sometimes through anger. Therefore, it is essential to evaluate patients holistically. The results of the study showed that the self-care level of the patients who are psychologically affected by the surgical intervention is lower. As patients express their feelings about the surgery in anger or suppress this anger, their self-care levels become lower. It can be seen that the self-care level of patients who manage their anger is higher. Recovery processes can also be faster by caring for patients who manage their anger.

CONCLUSION

The anger levels of patients who experience organ loss are apparent both in the preoperative period and in the postoperative period. In this study, both preoperative and postoperative anger levels of the patients were found affected. In addition, it has been found that patients' self-care ability

decreases in surgeries such as gastrectomy and mastectomy, which negatively affect body image and have a high risk of complications. During the healing process, increasing anger levels of patients also adversely affect self-care practices.

As a result of this study, it is understood that patients can express their emotions as anger in the preoperative or postoperative period. Anger negatively affects self-care in patients who experience organ loss. Therefore, surgical nurses should analyze patients carefully before organ loss, detect anger behaviors, and then plan and implement nursing care strategies to minimize their anger to improve the self-care ability of patients with organ loss. When necessary, help should be sought from a consultation-liaison psychiatry nurse. No previous studies evaluating the relationship between anger and self-care agency of patients experiencing organ loss were found. Further research is required to adopt and apply a holistic approach and contribute to patient recovery processes, focusing on the relationship between anger and self-care agency in patients who experience organ loss.

Ethics Committee Approval: This study was approved by the Trakya University School of Medicine Scientific Research Ethics Board (TÜTF-BAEK 2016/233: date: 02.11.2016 and decision number 17/10).

Informed Consent: Verbal consent was obtained from the participants.

Peer Review: Externally peer-reviewed.

Author Contributions: Conception/Design of Study-; Data Acquisition- H.M.A.; Data Analysis/Interpretation- H.M.A., Ü.Y.F.; Drafting Manuscript- H.M.A., Ü.Y.F.; Critical Revision of Manuscript- H.M.A., Ü.Y.F.; Final Approval and Accountability- H.M.A., Ü.Y.F.

Conflict of Interest: Authors declared no conflict of interest.

Financial Disclosure: Authors declared no financial support.

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