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"Both My Body and My Spirit are Incomplete": Care Needs and Difficulties Experienced by Patients with Amputation

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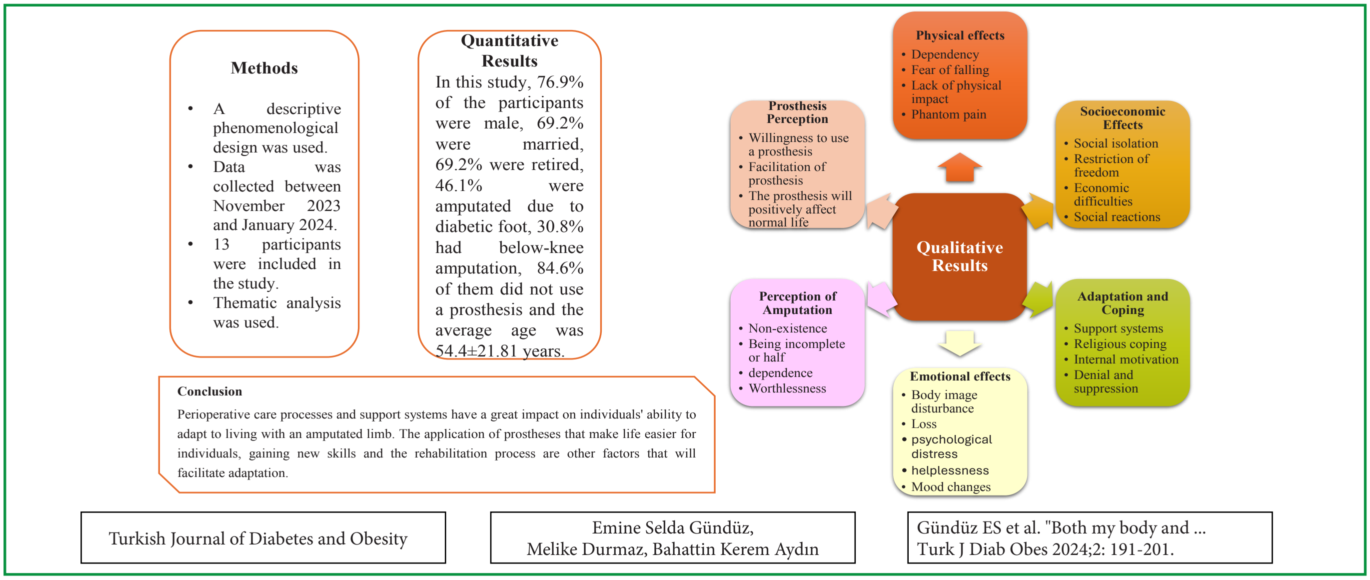
GRAPHICAL ABSTRACT



Methods

- A descriptive phenomenological design was used.
- Data was collected between November 2023 and January 2024.
- 13 participants were included in the study.
- Thematic analysis was used.

Quantitative Results

In this study, 76.9% of the participants were male, 69.2% were married, 69.2% were retired, 46.1% were amputated due to diabetic foot, 30.8% had below-knee amputation, 84.6% of them did not use a prosthesis and the average age was 54.4±21.81 years.

Qualitative Results

Physical effects
- Dependency
- Fear of falling
- Lack of physical impact
- Phantom pain

Socioeconomic Effects
- Social isolation
- Restriction of freedom
- Economic difficulties
- Social reactions

Adaptation and Coping
- Support systems
- Religious coping
- Internal motivation
- Denial and suppression

Emotional effects
- Body image disturbance
- Loss
- psychological distress
- helplessness
- Mood changes

Perception of Amputation
- Non-existence
- Being incomplete or half
- dependence
- Worthlessness

Prosthesis Perception
- Willingness to use a prosthesis
- Facilitation of prosthesis
- The prosthesis will positively affect normal life

Conclusion

Perioperative care processes and support systems have a great impact on individuals' ability to adapt to living with an amputated limb. The application of prostheses that make life easier for individuals, gaining new skills and the rehabilitation process are other factors that will facilitate adaptation.

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ABSTRACT

Aim: It is frequently performed for reasons such as amputation, circulatory system problems, accidents, cancers, infections and surgical interventions due to congenital anomalies, and it affects individuals psychosocially. This research was conducted to better understand individuals' amputation experiences and care needs.

Material and Methods: Descriptive phenomenological type research, one of the qualitative research designs, was conducted with 13 participants between November 2023 and January 2024.

Results: In this study, 76.9% of the participants were male, 69.2% were married, 69.2% were retired, 46.1% were amputated due to diabetic foot, 30.8% had below-knee amputation, 84.6% of them did not use a prosthesis and the average age was 54.4±21.81years. Six themes were obtained in the thematic analysis: "Physical effects", "Socioeconomic effects", "Adaptation and coping", "Emotional effects", Amputation perception" and "Prosthesis Perception". Most of the participants are dependent in their daily living activities. Post-amputation body image impact, emotional difficulties such as loss and helplessness, and feelings of social isolation and dependency have affected many people. Participants frequently emphasized the importance of support systems such as family and healthcare professionals. In particular, receiving support from family members played an important role in the adaptation process of individuals after amputation.

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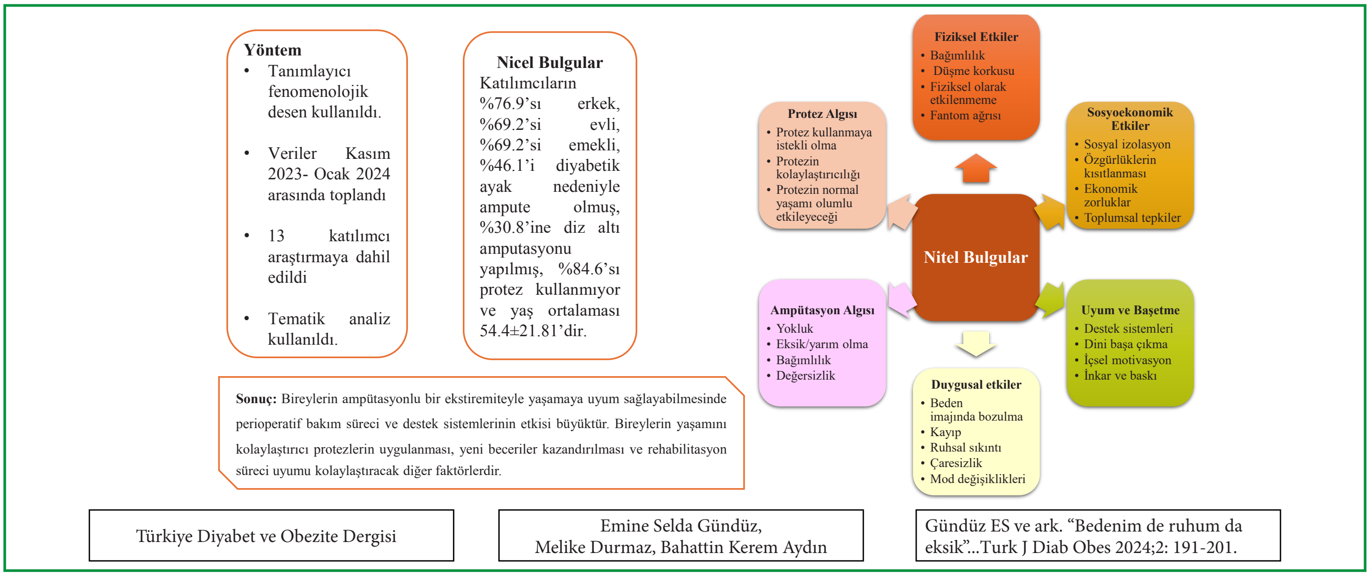
Almost all of the participants perceived amputation negatively. However, it was noted that participants using prosthesis used more positive expressions. Many of the participants talked about their desire to use a prosthesis and their hope that the prosthesis would have a positive impact on their lives.

Conclusion: Amputation is an important surgery performed due to acute or chronic health problems and affects individuals biopsychosocially. Perioperative preparation and care processes and support systems have a great impact on individuals' ability to adapt to living with an amputated limb. The application of prostheses that make life easier for individuals, gaining new skills and the rehabilitation process are other factors that will facilitate adaptation.

Keywords: *Amputation, Patient experiences, Nursing care, Home care*

"Bedenim de Ruhum da Eksik": Ampütasyon Deneyimi Olan Hastaların Bakım Gereksinimleri ve Yaşadığı Güçlükler

GRAFİKSEL ÖZET



Yöntem
- Tanımlayıcı fenomenolojik desen kullanıldı.
- Veriler Kasım 2023- Ocak 2024 arasında toplandı
- 13 katılımcı araştırmaya dahil edildi
- Tematik analiz kullanıldı.

Nicel Bulgular
Katılımcıların %76.9'sı erkek, %69.2'si evli, %69.2'si emekli, %46.1'i diyabetik ayak nedeniyle ampute olmuş, %30.8'ine diz altı amputasyonu yapılmış, %84.6'sı protez kullanmıyor ve yaş ortalaması 54.4±21.81'dir.

Nitel Bulgular

Fiziksel Etkiler
- Bağımlılık
- Düşme korkusu
- Fiziksel olarak etkilenmeme
- Fantom ağrısı

Sosyoekonomik Etkiler
- Sosyal izolasyon
- Özgürlüklerin kısıtlanması
- Ekonomik zorluklar
- Toplumsal tepkiler

Uyum ve Başetme
- Destek sistemleri
- Dini başa çıkma
- İçsel motivasyon
- İnkar ve baskı

Duygusal etkiler
- Beden imajında bozulma
- Kayıp
- Ruhsal sıkıntı
- Çaresizlik
- Mod değişiklikleri

Ampütasyon Algısı
- Yokluk
- Eksik/yarım olma
- Bağımlılık
- Değersizlik

Protez Algısı
- Protez kullanmaya istekli olma
- Protezin kolaylaştırıcılığı
- Protezin normal yaşamı olumlu etkileyeceği

Sonuç: Bireylerin ampütasyonlu bir ekstiremiteyle yaşamaya uyum sağlayabilmesinde perioperatif bakım süreci ve destek sistemlerinin etkisi büyüktür. Bireylerin yaşamını kolaylaştırıcı protezlerin uygulanması, yeni beceriler kazandırılması ve rehabilitasyon süreci uyumu kolaylaştıracak diğer faktörlerdir.

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ÖZ

Amaç: Ampütasyon, dolaşım sistemi sorunları, kazalar, kanserler, enfeksiyonlar ve doğumsal anomalilere bağlı uygulanan cerrahi girişimler gibi nedenlerle sıklıkla yapılmakta ve bireyleri psikososyal olarak etkilemektedir. Bu araştırma, bireylerin ampütasyon deneyimlerinin ve bakım gereksinimlerinin daha iyi anlaşılması amacıyla yapılmıştır.

Gereç ve Yöntemler: Nitel araştırma desenlerinden tanımlayıcı fenomenolojik tipteki araştırma Kasım 2023- Ocak 2024 tarihleri arasında 13 katılımcı ile yapılmıştır.

Bulgular: Katılımcıların %76.9'sı erkek, %69.2'si evli, %69.2'si emekli, %46.1'i diyabetik ayak nedeniyle ampute olmuş, %30.8'ine diz altı amputasyonu yapılmış, %84.6'sı protez kullanmıyor ve yaş ortalaması 54.4±21.81'dir. Tematik analizde "Fiziksel etkiler", "Sosyoekonomik etkiler", "Uyum ve baş etme", "Duygusal etkiler", Ampütasyon algısı" ve "Protez Algısı" olmak üzere altı tema elde edilmiştir. Katılımcıların çoğu günlük yaşam aktivitelerinde bağımlıdır. Ampütasyon sonrası yaşanan beden imajı etkilenimi, kayıp ve çaresizlik gibi duygusal zorluklar, sosyal izolasyon ve bağımlılık duygusu birçok kişiyi etkilemiştir. Katılımcılar sıklıkla aile ve sağlık uzmanları gibi destek sistemlerinin önemini vurgulamıştır. Özellikle aile üyelerinden destek almak, bireylerin ampütasyon sonrası uyum sürecinde önemli bir rol oynamıştır. Katılımcıların tamamına yakını amputasyonu olumsuz algılamıştır. Bununla birlikte protez kullanan katılımcıların daha olumlu ifadeler kullandığı dikkat çekmiştir. Katılımcıların birçoğu protez kullanma isteklerinden ve protezin yaşamlarını olumlu etkileyeceğine dair umutlarından bahsetmiştir.

Sonuç: Ampütasyon akut veya kronik sağlık sorunları nedeniyle yapılan ve bireyleri biyopsikososyal olarak etkileyen önemli bir ameliyattır. Bireylerin ampütasyonlu bir ekstremiteyle yaşamaya uyum sağlayabilmesinde perioperatif hazırlık ve bakım süreci ve destek sistemlerinin etkisi büyüktür. Bireylerin yaşamını kolaylaştırıcı protezlerin uygulanması, yeni beceriler kazandırılması ve rehabilitasyon süreci uyumu kolaylaştıracak diğer faktörlerdir.

Anahtar Sözcükler: *Ampütasyon, Hasta deneyimleri, Hemşirelik bakımı, Evde bakım*

INTRODUCTION

The increase in life expectancy and the consequent rise in the elderly population, coupled with the prevalence of uncontrollable chronic diseases and complications, have led to an increase in the rate of amputation surgeries (1). The purpose of amputation is to alleviate pain, create a stump that facilitates prosthetic use, and ensure circulation in the remaining extremity. Among the reasons for amputation are typically circulatory system problems, accidents, cancers, infections, and surgical interventions related to congenital anomalies (2).

Amputation entails various challenges, including changes in lifestyle and self-concept, diminished quality of life, impairment in physical functionality, as well as sensory effects such as phantom pain and sensation, stump pain, among others (3). Common problems encountered in individuals who have undergone amputation include bleeding, hematoma, necrosis, pain, edema, infection, phantom sensation or pain, skin issues, contractures, neuroma, psychosocial issues, immobility, difficulties adjusting to a new body image, and challenges related to prosthetic use (4).

Previous studies aiming to understand the care needs and experiences of individuals who have undergone amputation have predominantly utilized quantitative methods (2,5). A meta-synthesis study reported three main themes derived from qualitative research findings with amputee patients: the sense of being excluded from life due to amputation, the formation of a new self-identity, and the identity provided by the prosthesis (6). Another meta-synthesis identified five themes regarding the experience of being amputated and using a prosthesis: confronting amputation and prosthetic use, adapting to and coping with amputation and prosthetic use, the role of valuable relationships in recovery, amputation and prosthetic use in social interactions, and prosthetically empowered identities (7).

Nursing care for patients undergoing extremity amputation consists of preoperative, intraoperative, and postoperative care, discharge planning, and stages of reintegrating into society (8). Evidence-based guidelines have been developed in recent years to provide recommendations for the care, treatment, and rehabilitation of amputees (9). However, patients' perspectives are scarcely represented in these guidelines. Inclusion of patients' perspectives in clinical guidelines enhances the possibility of planning and implementing patient-centered treatment, care, and rehabilitation based on scientific evidence and patients' priorities (5). Therefore, this research was conducted using a phenomenological qualitative research design to better understand individuals' experiences of amputation and their care needs. In this study, answers were sought to the questions of what the care needs and difficulties experienced by individuals who had amputation were.

MATERIAL and METHODS

Design

Phenomenological studies aim to define the shared meaning of experiences related to a phenomenon or concept (10). The purpose of this research is to investigate the care needs of individuals who have undergone amputation and to identify the difficulties they experience using a descriptive phenomenological design. The research was conducted between November 2023 and January 2024 with patients who underwent amputation surgery at the Selçuk University Faculty of Medicine Hospital Orthopedics and Traumatology clinic and were followed up in the outpatient clinic, met the inclusion criteria, and agreed to participate in the study.

Participants

While the purpose of sampling in quantitative research is to make generalizations about the universe and to fully represent the universe, in qualitative research the aim is to understand and clarify the phenomenon in depth. Since the quality of the sample, not the quantity, is important in qualitative research, it is recommended to determine samples that meet the objectives of the research and can provide detailed data, instead of large groups as in quantitative research (11). Purposeful sampling method was used in this research, and the data collection process continued until data saturation was reached, that is, until the data started to be repeated. Although sample size calculation is not recommended due to the nature of qualitative research, it is reported that in purposeful sampling it would be appropriate to have the number of participants between 5 and 25 and that it is important to reach data saturation (10). In this research, transcripts were made day by day and data saturation was checked. Since the research data began to repeat, the data collection process was stopped after the 13th patient.

When similar studies were examined, it was seen that the sample size varied between 12-20 (12-15). In addition, 43 (65.5%) of the total 66 amputations performed in the previous year in the clinic where the research was conducted were lower extremity amputations. In this regard, 13 individuals who applied to the polyclinic at the time of the study and underwent lower extremity amputation and met the acceptance criteria for the study formed the sample group.

Inclusion Criteria:

(a) Being 18 years of age or older,

(b) Agreeing to participate in the research,

(c) Having undergone lower extremity amputation surgery,

(d) Having at least 6 months elapsed since the surgery.

Exclusion Criteria:

(a) Having cognitive impairments,

(b) Having communication barriers.

Data Collection Instruments

Data were collected using a patient identification form and a semi-structured interview form.

Patient Identification Form: This form consisted of 6 questions aimed at determining the participants' general characteristics. It was prepared by the researchers based on the literature (5,6).

Semi-Structured Interview Form: The semi-structured interview form included 7 questions. The opinions of two expert researchers in the field were obtained for the questions, and after suggested revisions were made, the data collection process was carried out.

Data Collection Technique

Individual in-depth interviews, a qualitative data collection technique, were used in the research, and data were collected using a semi-structured interview form along with a patient identification form. After obtaining written and verbal consent from patients who agreed to participate in the interviews, individual face-to-face interviews were conducted in a private room at the outpatient clinic at a suitable date and time chosen by the patients. In-depth individual interviews were conducted by the same female researcher (PhD) and lasted between 20-45 minutes. After obtaining consent from the patients, recording and note-taking techniques were used.

Data Analysis

The researchers have received qualitative research training and have qualitative research experience. The audio recordings were transcribed verbatim by the researchers on the same day, and the participants were asked to check them when they were available. Thematic analysis was used to analyze the data (Figure 1) (16).

The identified themes were also examined and coded by two experienced experts in qualitative research besides the researchers. To assess the reliability of the obtained data, coding was performed by two experts who were unaware of the research, and consistency analysis was conducted (Kappa value 0.91 [p=0.00]). This result was interpreted as indicating a high level of internal reliability, meaning there was significant agreement among the coders (17).

Study Trustworthiness

For validity in the research, credibility and transferability methods were used. To ensure credibility; The interviews were held at a time convenient for the participants, the researcher acted meticulously not to affect the participants' feelings and thoughts, and their statements were repeated in an understandable manner during the interview and confirmed with feedback (18). For reliability, each stage of the study was explained and written in detail, and confirmability was ensured by presenting the data completely in the method section of the research (19). To ensure consistency, a Semi-Structured Interview Form was created to be used in in-depth individual interviews, and this form was used as a guide in each interview (18).

Ethical Aspect of the Research

Written permission was obtained from the Selçuk University Faculty of Nursing Non-Interventional Ethics Commit-

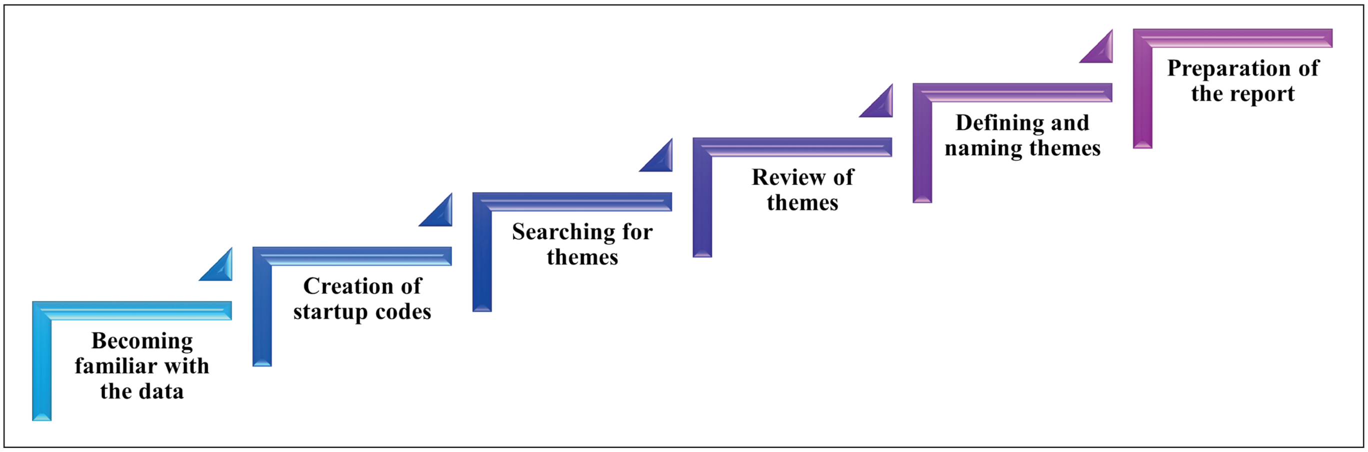

Figure 1: Braun and Clark's thematic analysis steps.

tee to conduct the research, institutional permission was obtained from the institution where the study was conducted, and written consent was obtained from the patients who agreed to participate in the study after explaining the purpose of the research. The Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines were used for reporting.

RESULTS

In this study, 76.9% of the participants were male, 69.2% were married, 69.2% were retired, 46.1% were amputated due to diabetic foot, 30.8% had below-knee amputation, 84.6% of them did not use a prosthesis and the average age was 54.4 years (Table 1).

Thematic analysis yielded six themes: "Physical effects," "Socioeconomic effects," "Adaptation and coping," "Emotional effects," "Perception of amputation," and "Perception of prosthetics" (Table 2).

Theme 1: Physical Effects

The theme of physical effects comprised subthemes of "dependency," "fear of falling," "lack of physical impact," and "phantom pain." The majority of participants expressed the need for assistance in almost all daily life activities, including mobility, eating, drinking, and elimination. While some participants described themselves as dependent, others referred to this condition as being needy. One participant expressed this dependency as follows: *"Now let me ask you, your hands and feet are tied. What would you do if you needed to use the bathroom? Even if I want a simple drink of water, I have to ask for it... 90% of my needs are seen to by others. They carry me to the bathroom, wash me, and bring me back. I'm dependent, you see."* (P1). On the other hand, three participants stated that they were not physically affected and performed all activities independently. Two of these participants were individuals with toe amputations. The participant who reported being physically independent explained: *"I do everything by myself. I drive my car, I go everywhere. I don't have a prosthesis right now, but I haven't been affected."* (P6).

Table 1: Participant Demographic Information (n=13).

Variables	Findings
Age average	54.4±21.81
Gender*	
Female	3 (23.1)
Male	10 (76.9)
Marital Status*	
Single	4(30.8)
Married	9(69.2)
Occupation*	
Retired	9 (69.2)
Unemployed	2 (15.4)
Employee	1 (7.7)
Student	1 (7.7)
Reason for Amputation*	
Diabetic foot	6 (46.1)
Trauma	5 (38.5)
Infection	2 (15.4)
Amputated Limb *	
Both legs below the knee	3 (23.1)
Above the knee	2 (15.4)
Below the knee	4 (30.8)
Ankle	1 (7.7)
Foot toes	3 (23.1)
Prosthesis *	
Yes	2 (15.4)
None	11 (84.6)

*Data are shown as n(%).

Some participants mentioned struggling to maintain balance and having a fear of falling. Two participants reported experiencing phantom pain. One participant described this experience as follows: *"I started experiencing imaginary pains, phantom pains, we started treatment but it feels strange. You know your leg is not there, but it hurts... It lasted for a month."* (P12).

Theme 2: Socioeconomic Effects

The theme of socioeconomic effects comprised subthemes of "social isolation," "restriction of freedom," "economic difficulties," and "social reactions." The prominent subtheme in the social impact of amputation was social isolation. The majority of participants reported that they could not maintain their previous social lives due to mobility limitations, felt their freedom was restricted, depended on another person to leave the house, and some participants felt imprisoned. One participant expressed their experience of social isolation as follows: *"I can't go out because I don't have a car. I can't go anywhere. I'm always dependent on someone. I'm stuck at home. I can't even meet my friends. If someone takes me, I go, otherwise I can't go."* (P2). Another participant expressed feeling their freedom was restricted, saying, *"Before the surgery, I was a person who didn't stay at home, worked for 10 hours a day. If you confine someone who used to roam around in the fields and mountains at home, think about what happens... (crying) It's like prison, between four walls. I feel like I'm in jail."* (P1).

Theme 3: Adaptation and Coping

This theme comprised subthemes of "support systems," "religious coping," "internal motivation," "denial and suppression." Many participants explained that support systems

Table 2: Participants' care needs and difficulties experienced after amputation (n=13).

Theme	Sub-theme*	n (%)	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13
Physical Effects	Dependency	8 (61.5)	√	√	√	√	√				√	√	√		
	Fear of falling	2 (15.3)					√			√					
	Lack of physical impact	3 (23.0)						√	√						√
	Phantom pain	2 (15.3)								√				√	
Socioeconomic Effects	Social isolation	5 (38.4)		√	√					√		√	√		
	Restriction of freedom	3 (23.0)				√	√			√					
	Economic difficulties	1 (7.6)											√		
	Social reactions	1 (7.6)											√		
Adaptation and Coping	Support systems	10 (76.9)		√	√	√		√		√	√	√	√	√	√
	Religious coping	3 (23.0)		√	√					√					
	Internal motivation	3 (23.0)						√						√	√
	Denial and	3 (23.0)			√		√					√			
	suppression	1 (7.6)									√				
Emotional Effects	Body image disturbance	6 (46.1)				√	√			√	√		√		√
	Loss	6 (46.1)	√		√	√	√					√	√		
	Helplessness	5 (38.4)	√	√		√			√		√				
	Psychological distress	2 (15.3)											√		√
	Mood changes	1 (7.6)				√									
Perception of Amputation	Negative perceptions	9 (69.2)	√			√	√	√		√	√	√	√		√
	Positive perceptions	1 (7.6)												√	
Perception of Prosthesis	Positive effect of the prosthesis	2 (15.3)									√			√	
	Expectations from prosthesis	2 (15.3)		√									√		
	Hope/empowerment	2 (15.3)	√	√											
	Completion	1 (7.6)								√					

* Participants gave more than one answer

such as family support and support from healthcare professionals facilitated the adaptation process. One participant expressed the support they received from family and healthcare professionals as follows: *"Healthcare professionals and my family helped me adapt. Healthcare professionals were honest with me, they always told me what would happen, and it happened as they said. I trusted them, and I adapted more easily... My family has always been there for me. I got married last week."* (P6).

Some participants expressed the influence of spiritual and religious feelings while adapting to the amputation process. They reported praying, being grateful, and thinking of people in worse situations. One participant explained their coping mechanism: *"It didn't emotionally affect me at all. Why didn't it affect me? Because (starts crying)... they perform surgeries without anesthesia in Palestine right now, how could this (my situation) affect me. We need to be grateful for our situation, we have all kinds of opportunities. I accepted them with gratitude, with my belief in God (Crying)..."* (P8).

During the interviews, some participants mentioned trying to maintain high levels of internal motivation and self-encouragement while coping with the amputation process. One participant described their acceptance process: *"I wasn't affected psychologically at all. I knew my leg wouldn't heal, even if it was amputated, I'd be relieved. Does anyone want their leg to be amputated, I did. I had prepared myself because I had made the decision myself. I encourage myself a lot."* (P12).

One of the three participants who could not accept being an amputee mentioned contemplating suicide and expressed their helplessness: *"I couldn't accept it, nurse, I even thought of drinking poison, I want to die. There were times I even thought of dying, I wanted to. You're helpless, what can you do?"* (P1).

Theme 4: Emotional Effects

The theme of emotional effects of amputation comprised subthemes of “body image disturbance,” “loss,” “psychological distress,” “helplessness,” and “mood changes.”

Body image disturbance was among the prominent expressions. Participants explained that regardless of the amputated organ, their body image was affected. They described feeling discomfort with their appearance, tendencies to conceal the amputation, and feeling incomplete. One participant with toe amputation expressed their view of the amputated leg and how they felt incomplete despite their body being intact: *“It’s as if I’m afraid of my foot now. I’m cautious as if something’s going to happen, when I wear my shoes, when I walk... (seeing the amputated limb as vulnerable)... I look complete from the outside. But I feel incomplete inside. Even in a closed place at home, even when you’re with your child, you feel the need to hide your incompleteness.”* (P13). Another participant with knee-level amputation described their body perception: *“Of course, we’re not whole anymore. When you wear pants, when you wear pajamas, it feels strange to see yourself like that.”* (P8).

Amputation resulted in various losses for many participants. They described how amputation changed their familial roles, transitioning from independence to dependence, and the emotional losses caused by physical losses. A participant who became a father after amputation expressed their inability to fulfill the roles of a father and a spouse: *“Psychological support is needed for everyone; it’s a very difficult surgery. There’s a child at home, for example, my child asks me for help, and I can’t help, he cries, I can’t even go to him and take him in my arms. My activity with my wife is zero, in every way. I can’t help her in any way. I can’t be there for her. My wife ends up taking care of two children. In fact, my care is even more difficult.”* (P11).

Some participants described the feeling of helplessness caused by their physical dependency. One participant expressed their loneliness, helplessness, and desire to die: *“As if the surgery wasn’t enough, my wife passed away a month after my first surgery. I’m all alone... I’m in a terrible state (crying)... My sons and daughters-in-law take care of me. There were times I even thought of dying, I wanted to. You’re helpless, what can you do?”* (P1).

Another participant described how their psychology was affected, leading to changes in emotions and behaviors: *“This illness has really messed up my psychology. They say you’ve become like a child to me, but I want them to show interest in me too. The boy and my wife get angry with me, saying you’re expecting attention like a child. They say I’m always aggressive...”* (P4).

Theme 5: Perception of Amputation

When participants were asked to liken amputation to something, most of them mentioned their negative perceptions. Prominent themes in their expressions included non-existence, being incomplete or half, dependence, worthlessness, and being like a broken glass. One participant expressed their experience as follows: *“When I think of amputation, I think of my disabled foot and the problems it will cause from now on. Consider me a robot, not even a robot, consider me a skeleton. I mean, I’m like an inanimate thing - a creature. Motionless, I’m a living dead.”* (P1). In this statement, they explained their constraints and losses, the lack of future expectations, and the decrease in self-esteem, likening amputation to death. Another participant, who had experienced recurrent health issues before amputation and had an active role in the decision-making process, described amputation as salvation.

Theme 6: Perception of Prosthesis

Many participants did not use a prosthesis. Those who did expressed the positive effects of the prosthesis in their lives, both cosmetically and in facilitating movement. Some participants who did not use a prosthesis expressed willingness to use one, hoping it would reduce their deficiencies, facilitate their strength, and make walking easier. One participant stated: *“If I had a prosthesis, I could adapt better. It’s very difficult with crutches.”* (P11), expressing that the prosthesis would have a positive impact on their adaptation.

DISCUSSION

In this study, the care needs and difficulties experienced by individuals who underwent amputation were examined in depth. In line with the findings obtained from the interviews, the themes of physical effects, socioeconomic effects, adaptation and coping, emotional effects, amputation perception and prosthesis perception were determined.

This research reveals that the majority of participants need assistance in almost all daily living activities, especially movement, eating, drinking, bathing and excretion. Regarding their need for help, some participants define themselves as dependent, while some participants define this situation as neediness. In one study, participants reported that they needed more effort and time for personal care tasks, household chores, hobbies, and social activities after amputation (13). The result obtained from this study is consistent with other studies reporting that mobility, physical function, and daily living activities are negatively affected in individuals after amputation (20,21). Additionally, some participants mentioned that they had difficulty balancing and had a fear of falling. Similarly, in one study, participants most commonly reported decreased movement due to loss of balance, pain, loss of strength, and medical directives to lift or isolate the affected area (14). In another study, participants talked about the fear of falling and emphasized that this situation caused them to avoid challenging activities that they had previously enjoyed (13). In addition, movement limitation is very concerning due to the high risk of cardiovascular events and death, especially in individuals with lower extremity amputations (22), and maintaining physical activity is important for improving long-term health outcomes (23). These results reveal the importance of guiding the individual from the first mobilization to include the rehabilitation process in restructuring both movement and balance systems in order to reduce the risk of falling as well as the negative physiological effects of inactivity.

In the study, two participants stated that they experienced phantom pain. In the literature, phantom pain is associated with insomnia and poor quality of life (24). Phantom pain can occur with various physical and psychological factors and can also be exacerbated by these factors (25). It is envisaged that raising participants' awareness about phantom pain and explaining the relevant treatment-care protocols in pre-operative education can positively affect the quality of life by supporting individuals' adaptation and coping.

In this study, most participants reported that they could not maintain their former social lives due to limited mobility, their freedom was restricted, they were dependent on another person to go out of the house, and some participants reported that they felt like they were in prison. A study stated that loss of mobility also affects family and social relationships and, in some cases, causes deep isolation (14). MacKay et al. study examined social support, accessibility and socioeconomic factors, and stated that the main factors shaping individuals' life experiences are "physical limitations" and "loss of valuable activities" and "change in functional mobility" (21). Results supporting the research findings (14,21) emphasize the importance of adaptation to the use of prosthesis and rehabilitation in order to regulate the movement system and restore balance after amputation. It is also thought that it would be useful to create, use and disseminate programs to identify individuals at risk of social isolation. In addition, it is emphasized that advanced technologies and artistic activities that support interaction between individuals are very promising in reducing social isolation (26).

In this research, based on the participants' statements about adaptation and coping, the subthemes "Support systems", "Religious coping", Internal motivation", "Inacceptance" and "Denial/Suppression" were obtained. Many of the participants in the study explained that support systems, such as support from family and health professionals, facilitated the adaptation process. It is known that family support is of critical importance on the recovery process (14). In a qualitative study, it was reported that hopelessness and depression, body image interference, religious attitudes, family and community support were effective in shaping the general patient experience, including the biopsychosocial adaptation of individuals (15). Keeves et al. emphasized the value of peer support networks and supportive community groups during the transition to family, work and social roles before amputation (27). A study revealed that social support, especially from family and friends, was an important factor affecting the participants' journey with limb loss (21). Another study showed that lack of social support brought additional obstacles to the patient's recovery (28). According to these results, it can be said that providing family support from the pre-operative period and including the family in the care process can facilitate the adaptation of individuals as well as positively affecting intra-family processes. On the other hand, as in this research, it shows that the therapeutic approach and support of health professionals can be considered as an important part of the adaptation process.

In the study, a participant explained that meeting other individuals with amputations during the post-operative hospitalization period negatively affected him as follows; "I had a harder time in the hospital environment in the first few weeks. I am impressed. *"There were patients like me in my room at the hospital, they were always talking about their problems, but it doesn't feel good if you tell them."* (K6) There are great differences between individuals in their responses to amputation and their coping methods (29). It is very important to support individuals in setting realistic goals and adopting positive coping strategies. Taking into account physical, cognitive, psychological and socioeconomic conditions as well as social support systems before and after amputation can make positive contributions to the adaptation process.

In this study, participants' statements about the emotional effects of amputation revealed the sub-themes of body image impact, loss, psychological distress, helplessness and mood change. Participants explained the impact of the amputated organ on their body image, regardless of the region, as their body integrity was disrupted, they felt uncomfortable with their appearance, they tended to hide the amputation, and they felt incomplete. In one study, some participants who had undergone minor amputations described body image disturbances, including shame and embarrassment, related to the unique experience of limb loss (30). In the same study, it was reported that a participant who lost several toes described feeling that his foot was no longer "complete" and tried to avoid others' comments or questions (20). This result is similar to the research of Şimsek et al. (31). It has been reported that body image changes, in addition to causing functional and social adaptation problems, are also an important predictor of quality of life and psychosocial adaptation to amputation (32). These results point out that the use of a prosthesis that will ensure body image integrity as early as possible, before body image disorder occurs, will positively affect body perception.

Physical dependency caused by amputation may cause loss of freedom, as well as increased dependence on caregivers, restructuring of family relationships, and changes in responsibilities (18). In this study, many participants explained that amputation changed their roles within the family, that they moved from independence to dependence, and about the emotional losses caused by their physical losses. One participant expressed the loss of role she experienced with the statement, *"I used to be the mother of the house, now they look after me. It is difficult, very difficult..."* (P 5). Similarly, in some studies, participants stated that there were changes in their roles within the family, that these changes could affect the lives of family members (e.g., taking on more housework) and could constitute a loss for family members (e.g., not being able to do sports or activities with their grandchildren) (21), and that their caregiving roles They reported that they had difficulties in reversing the situation and that they felt disappointed and even powerless because they could not maintain their parenting or care roles (14). It is known that the incidence of depression, anxiety and body image disorders is high after amputation (4). It has been reported that the mental health of individuals who cannot fulfill their previous roles in the family, society and work environment may be affected due to the loss of roles experienced, and this may contribute to depression (33). In this context, it can be said that, in addition to physical adaptation, the support of health professionals with a multidisciplinary approach will play a key role in the adaptation process in ensuring the psychosocial adaptation of individuals and structuring and acquiring family and social roles.

In this study, almost all of the participants reflected negative perceptions such as being nothing, being incomplete, being in need, being useless and a broken glass. In one study, it was stated that participants described amputation as a life-changing, devastating event and emphasized the significant impact of limb loss on their emotional health and self-perception (21). In a systematic meta-analysis conducted by Behera and Dash, it was reported that amputation was defined as the feeling of exclusion from life, the embodiment of a new self-identity, and the identity made possible by the prosthesis (6). In addition to negative perceptions, a remarkable result in our research is that a participant who had repeated health problems before amputation and took an active role in the decision-making process defined amputation as salvation and expressed that he accepted his situation, revealing his individual experiences and its positive impact on the process. It can be said that negative health experiences leading to amputation may facilitate the acceptance process. Involving individuals in the process during the preparation phase and an open and honest approach strengthens individuals' sense of trust in healthcare professionals, as well as supporting our previous findings in terms of the support of healthcare professionals in their support systems during the coping process.

The use of prosthesis is an important factor to increase the quality of life after amputation (34). In this study, participants with prostheses expressed the positive effects of the prosthesis on their lives, both cosmetically and in terms of facilitating mobility. Some of the individuals who do not use prostheses expressed their willingness to use prostheses and stated that they hoped that it would reduce the deficiencies in their lives, make them stronger and make it easier for them to walk.

In this study, the care needs and difficulties experienced by amputated patients were examined in depth. However, due to the nature of qualitative research, the data belong to a limited population and cannot be generalized. Additionally, face-to-face interviews were conducted by only one person. While this may have contributed to ensuring consistency in the interviews, it may have caused limitations in the transfer of body language into writing.

Many participants in the study stated that they had difficulty in performing daily living activities after amputation and experienced varying degrees of physical dependence. There are many individuals who have difficulty meeting their basic needs such as toileting, bathing and dressing. Emotional difficulties, social isolation and feelings of dependency after amputation have affected many people. Participants frequently emphasized the importance of support systems such as family and healthcare professionals. In particular, receiving support from family members played an important role in the adaptation process of individuals after amputation.

The psychological effects experienced after amputation varied. While some participants had difficulty in the acceptance process, others approached their situation from a positive perspective. Experiences regarding individuals' place in society and the way they are perceived became evident in the narratives of many participants. The desire to be involved despite necessarily being isolated from social life is an important issue expressed by many participants.

Almost all of the participants perceived amputation negatively. However, it was noted that participants using prosthesis used more positive expressions. Many of the participants talked about their desire to use a prosthesis and their hope that the prosthesis would have a positive impact on their lives.

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Author's Contributions

Study Design: **Emine Selda Gündüz, Melike Durmaz, Bahattin Kerem Aydın,** Data Collection: **Emine Selda Gündüz, Melike Durmaz, Bahattin Kerem Aydın,** Data Analysis: **Emine Selda Gündüz, Melike Durmaz, Bahattin Kerem Aydın,** Study supervision: **Emine Selda Gündüz, Melike Durmaz, Bahattin Kerem Aydın,** Manuscript Writing: **Emine Selda Gündüz, Melike Durmaz, Bahattin Kerem Aydın,** Critical revisions for important intellectual content: **Emine Selda Gündüz, Melike Durmaz, Bahattin Kerem Aydın.**

Conflict of Interest

The authors declare they have no conflict of interest.

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Ethical Approve

The authors state that this research has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans.

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