

# An Evaluation on Psychosocial Problems Experienced by Cancer Patients During the Treatment Process: Qualitative Study

## Kanser Hastalarının Tedavi Sürecinde Yaşadığı Psikososyal Sorunlar Üzerine Bir Değerlendirme: Nitel Araştırma

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**ABSTRACT Objective:** This study aimed to explore in-depth the experiences of patients in managing psychosocial problems during the treatment of cancer disease. **Material and Methods:** An inductive thematic analysis was conducted on responses from 15 individuals (14 female, 1 male) with cancer. Concept elicitation interviews were conducted with 15 patients whose ages are between 29-75. **Results:** 10 themes were identified regarding the emotional and social problems. It has been observed that patients experience a high level of fear and do not receive adequate support from the community and from medical team. It was found that insufficient information was provided about the psychological and physical difficulties of the disease process. There must be support from a psychologist and dietitian in medical treatment. In addition, it was seen that their psychosocial problems stemmed from 4 themes (from individual himself, health personnel, the disease, and their environment). Psychosocial problems were gathered around 3 themes and had negative effects on individual himself, their relatives, and their work lives. Participants stated that cancer was a turning point in their lives. Finally, 7 themes (self, co-work team, family, medical staff, relatives, other cancer patients, and friends) were identified as the people who have the most important role in solving psychosocial problems. **Conclusion:** Although the participants' characteristics differed from each other, their themes showed consistency. It shows how individuals cope with the disease processes and where they get stuck and need social support. Based on the needs of patients, the importance and necessity of psychologist and dietitian support in medical treatment has emerged.

**ÖZET Amaç:** Bu çalışmada, kanser hastalığının tedavi sürecinde olan hastaların psikososyal sorunları yönetme deneyimlerinin derinlemesine araştırılması amaçlanmıştır. **Gereç ve Yöntemler:** Kanserli 15 hastadan (14 kadın, 1 erkek) alınan yanıtlar üzerinde tümevarımsal bir tematik analiz gerçekleştirilmiştir. Yaşları 29-75 arasında değişen 15 hasta ile temaların ortaya çıkarılması amacıyla görüşmeler yapılmıştır. **Bulgular:** Hastaların kanser sürecinde yaşadıkları duygusal ve sosyal problemlere dair toplam 10 tema belirlenmiştir. Katılımcıların yüksek düzeyde korku yaşadıkları ve bu duygunun iyileştirilmesi için özellikle toplumdaki ve sağlık ekibinden yeterli desteği alamadıkları görülmüştür. Hastalık sürecinin psikolojik ve fiziksel zorlukları ile ilgili yeterli bilgi verilmediği tespit edilmiştir. Tıbbi tedavide psikolog ve diyetisyen desteği olmalıdır. Ayrıca psikososyal sorunlarının 4 temadan (kendilerinden, sağlık personelinin, hastalıktan ve çevrelerinden) kaynaklandığı görülmüştür. Psikososyal sorunların 3 tema etrafından toplandığı; bu zorlu sürecin kendileri, yakınları ve çalışma hayatları üzerinde olumsuz etkileri olduğu görülmüştür. Katılımcılar, kanserin hayatlarında dönüm noktası oluşturduğunu, kariyer hedeflerini ve insanlarla ilişkilerini tamamen değiştirdiğini ifade etmiştir. Son olarak psikososyal sorunların çözümünde en önemli role sahip kişilere dair 7 tema (kendileri, çalışma ekibi, aile üyeleri, sağlık personeli, akrabalar, diğer kanser hastaları ve arkadaşlar) belirlenmiştir. **Sonuç:** Katılımcıların özellikleri birbirinden farklı olsa da ortaya çıkan temalar tutarlılık göstermiştir. Bireylerin kanser süreciyle nasıl başa çıkabildiklerini ve hangi noktalarda sıkışarak sosyal desteğe ihtiyaç duyduklarını göstermektedir. Hastaların ihtiyaçlarından yola çıkarak tıbbi tedavide psikolog ve diyetisyen desteğinin önemi ve gerekliliği ortaya çıkmıştır.

**Keywords:** Psycho-oncology; psychosocial support systems; psychosocial functioning; qualitative research

**Anahtar Kelimeler:** Psiko-onkoloji; psikososyal destek sistemleri; psikososyal işlevsellik; nitel araştırma

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Cancer is an increasingly challenging chronic disease that causes deaths worldwide.<sup>1</sup> In Türkiye, the incidence of cancer has increased rapidly in recent years. In 2020, the number of new cases was recorded as 233,834, while the number of cancer-related deaths was 126,335.<sup>2</sup> Sadly, cancer is among the top 3 diseases causing the highest number of deaths in Türkiye.<sup>3</sup>

Although cancer is a medical disease, it can also leave deep psychological and sociological wounds and lead to major changes in the patient's life after diagnosis.<sup>4</sup> Cancer is a life experience in which uncertainty is experienced quite intensely during and after treatment, evokes death, can leave deep wounds in the patient's inner world. The concept of psychosocial management can be defined as solving problems encountered in psychological, physical, economic, and spiritual issues that provide care coordination for people with complex medical conditions and psychosocial needs.<sup>5,6</sup>

Cancer disease leads to physical, psychological, sociological, and financial changes in the individual and his family. According to a study, it has been found that cancer patients experience mental problems at a rate 3 times higher than other individuals in society.<sup>7</sup> These mental problems cause negative effects on daily activities, relationships, work and social communication and can lead to isolation, vulnerability, withdrawal or negative transmission of emotions.<sup>8,9</sup> Sometimes, the cancer diagnosis and treatment process results in post-traumatic growth-maturation by providing many new achievements such as increasing the individual's problem solving skills, strengthening crisis management and changing their perspective on life events, the emergence of potential power.<sup>10,11</sup>

The most important expectation for the treatment team is accurate information transferring. The physician's sharing information by caring about the patient's expectations and values, communicating with simple and understandable words without putting obstacles on the patient, and giving realistic hope increases compliance with the treatment and the team.<sup>12</sup>

The hopeful speeches, supportive and reassuring attitudes of the people around the patient can increase

the patient's energy, morale, quality of life, prolong life, and reduce physical symptoms. On the other hand, behaviors and words shown in a completely unconscious or unintentional manner can lead to an increase in fatigue and hopelessness, pessimism and negative feelings in patients and a loss purpose of life.<sup>13</sup> In addition, adjustment disorder, delirium, aggression; mental problems such as anxiety, depression, anger, future anxiety, decreased quality of life, suicidal thoughts, social isolation, decreased self-esteem and sexual dysfunction can also come to the surface.<sup>14,15</sup> In the physical dimension, when there are problems such as pain, weight gain, inability to concentrate; in the psychological dimension, they may face problems such as post-traumatic stress disorder, loneliness, and in the social dimension, they may face relationship restriction, stigma, discrimination, narrowing of social networks, and a decrease in social support.<sup>16</sup>

When the literature is examined, publications on psychosocial factors in cancer patients are generally studies based on reviews and studies using quantitative methods.<sup>4,8,9,14-16</sup> In this study, it is not aimed to make any generalization among patients, but seeing the unique experience through their perceptions, feeling what they have experienced and deciphering it in writing constitute the main starting point of the research. Therefore the selection of a qualitative research method, which is not very preferred, comes to the fore as an original value. The difficulties experienced by cancer patients, the uncertainties they face, the confrontation with themselves and their surroundings are not very well known. For this reason this study aims to explore in depth what are the experiences of patients in managing biopsychosocial problems during the treatment process of cancer disease, as well as the psychosocial problems they face, their causes, reflections, solution approaches.

## MATERIAL AND METHODS

In this research phenomenology, which is a qualitative research pattern often used in social sciences, has been preferred in understanding the experiences of cancer patients based on the in-depth exploration of the phenomena encountered in everyday life that cannot be fully understood.<sup>17,18</sup>

## PARTICIPANTS

Criterion sampling among purposive sampling techniques was preferred. Due to the pandemic, an invitation announcement was made via social media and message groups and 15 people were reached. Inclusion criteria in the study are as follows:

- Being sufficient in the ability to understand and express the Turkish language,
- Being over the age of 18,
- Being in the remission stage after undergoing active treatment for at least 1 year after cancer diagnosis,
- Being volunteer to participate.

People who received palliative care, whose treatment was ongoing, and whose cancer had recurred were excluded from the study.

## PROCEDURE

All of the interviews (n=15) were conducted online [Skype™ (Microsoft Corporation, Redmond, WA)] by the author who is a doctoral-level academician and a clinical psychologist. Informed consents of the participants were obtained. The interviews, which lasted an average of 43 minutes, were conducted by an appointment from the participants between November, 2021 and March, 2022. This research is based on the Declaration of Helsinki 2008 according to its principles. All research procedures have been approved by the Burdur Mehmet Akif Ersoy University Non-Invasive Clinical Research Ethics Committee (date: August 20, 2020; no: 2020/8).

## INTERVIEW FORM

A semi-structured interview form has been developed based on the studies conducted in the literature and the experiences and knowledge of the research team. The opinions of experienced experts on qualitative research were taken. In-depth interviews conducted through the form were recorded on a voice recorder with verbal and written permission from the participants. The interview form contains open-ended questions in 5 headings:

- 1) Participant information (gender, marital status, occupation, type of cancer, etc.).

- 2) Psychosocial problems that he encountered during the treatment process.
- 3) The factors that cause the formation of these psychosocial problems.
- 4) Reflections on psychosocial problems.
- 5) Solution approaches in the management of psychosocial problems.

## DATA ANALYSIS

All interviews were transcribed. Codes and themes have been created, and the audio recording has been examined to ensure accuracy. The Nvivo 12.0 (QSR International Pty Ltd, Doncaster, Australia) program was used to store and analyze the data. The analysis phase was done with Smith et al. transactions.<sup>19</sup> Abstract themes were created by making decisions, combinations, and detailed descriptions between independent encodings. Open, axis, and selective coding operations were performed during the coding phase.<sup>20</sup>

In the analysis process of the data, interpretive phenomenological analysis was applied. Thematic analysis was carried out to create the main themes. In order to prioritize the participants' perspectives and minimize analytical biases, an inductive approach was adopted to determine the theme.<sup>21,22</sup>

The research team developed a code book by taking the expert opinion. The data have been made explicit coding. Axial coding was used to determine the relationships between the decodes and the (sub) themes that emerged and to compare the data responses of the related subgroups.

In order to increase the reliability of the study, the agreement of the coders was evaluated. Each transcript was examined independently by two academicians and a psychooncologist. Cohen's kappa (k) coefficient was examined and determined that the agreement rate was 55%. The kappa statistic takes values between 0 and 1. Generally, values of 0.40 and above indicate acceptable consensus strength.<sup>23</sup> To decide on themes, researchers met online 3 times. The codebook has been revised iteratively according to new themes. Finally, a macro-analytical approach was adopted to investi-

gate the relationship between the themes in the context of the participants' responses. Data saturation is provided at all theme levels. Each theme level is classified hierarchically.

## RESULTS

Of the 15 participants in the study, 14 (93.3%) were women, 11 (73.3%) were married, 7 (46.7%) had

breast cancer; 3 (20%) were physicians and 3 (20%) were psychologists. The average age is 42 (Table 1).

As a result of the thematic analysis, the conceptual model put forward for 4 themes and 16 sub-themes. 4 themes which are; psychosocial problems during cancer (1), factors effecting psychosocial problems (2), reflections on psychosocial problems (3) and solutions for the psychosocial problems (4) (Figure 1).

TABLE 1: Participant characteristics.

	n	%		n	%
<b>Gender</b>			<b>Occupation</b>		
Female	14	93.3	Physician	3	20.0
Male	1	6.7	Psychologist	3	20.0
<b>Cancer diagnosis</b>			Midwife	3	20.0
Breast	7	46.7	Manager	2	13.3
Lymphoma	3	20.0	Nurse	1	6.7
Thyroid	2	13.3	Social worker	1	6.7
Colon	1	6.7	Academician	1	6.7
Testicular	1	6.7	Student	1	6.7
Cervical	1	6.7	<b>Age</b>		
<b>Marital status</b>			<40	8	53.3
Married	11	73.3	40≥	7	46.7
Not married	4	26.7	<b>Total</b>	15	100

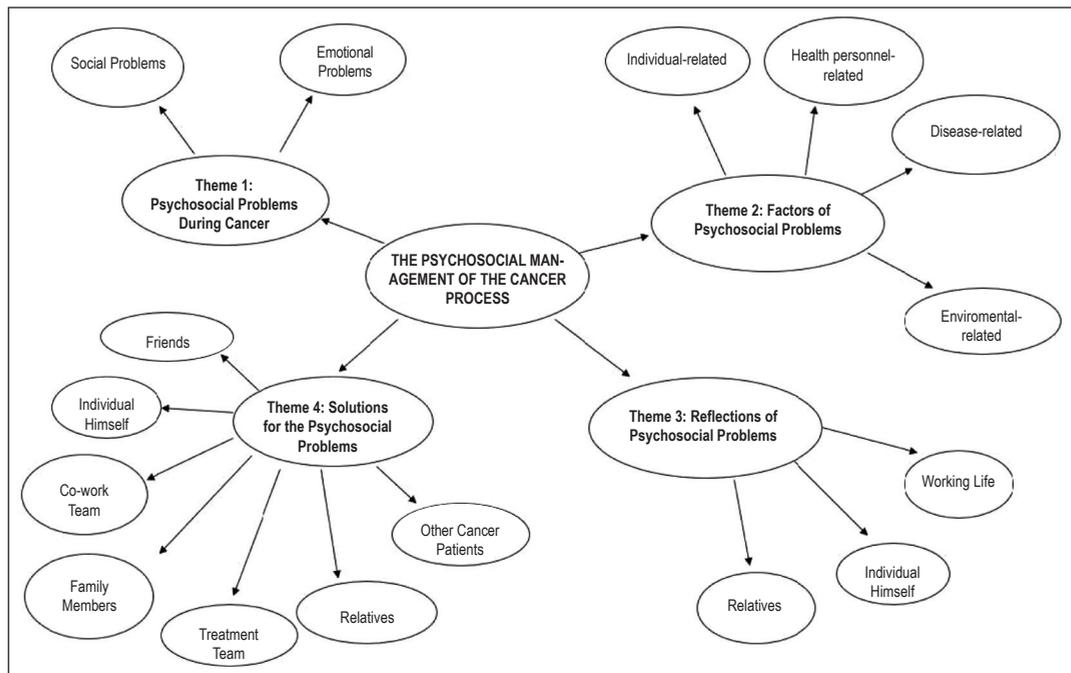


FIGURE 1: The model for the managing cancer patients' psychosocial problems.

**THEME 1: PSYCHOSOCIAL PROBLEMS DURING CANCER**  
 According to the participant quotes, the problems experienced after diagnosis include 2 themes: emotional and social. The codes belonging to these themes are sorted, and sample quotes about the participant ex-

pressions belonging to each theme are included. Emotional problems sub-theme has 8 codes (anxiety, anger, trauma, shame, fear, unhappiness, feeling of loneliness, and shock). The social problems sub-theme has 2 codes (conflict and comparisons) (Table 2).

**TABLE 2:** Sub-themes and codes related to psychosocial problems during cancer.

Sub-themes	Codes	Quotes
Emotional problems	Anxiety	<p>"Although I try not to show it at every check-up time, I am experiencing anxiety. Or when my stomach hurts at work, I wonder if something is relapsing." Participant(P)1 (Cervix Cancer, 49 Age)</p> <p>"And you have no idea if you'll ever be able to get back into a routine again. So it's quite challenging." P2 (Breast Cancer, 60 Age)</p> <p>"When I was alone with something like this... there was a feeling of helplessness, like how am I going to overcome this on my own, and I wonder if I won't be able to, and a feeling of powerlessness." P5 (Breast Cancer, 43 Age)</p>
	Anger	<p>"You can't think straight. You feel like you're going to die, too. Watching you collapse day by day because your body doesn't have the stamina from the medications you're taking, it makes you feel like you've been pushed down the path they said... Okay, come on, my place is ready. It's time to transfer, I'll withdraw, I'll transfer to someone." P11 (Breast Cancer, 32 Age)</p> <p>"After I got the result, I felt a lot of anger, but I didn't know what I was angry at, maybe most of all at myself. I smoke, etc. Yes, yes, I was most angry with myself." P1 (Cervix Cancer, 49 Age)</p>
	Trauma	<p>"The biggest trauma... The doctor came the next day, said during the visit you wanted to remove the probe, it could be, but then you have to have surgery again, everything will turn into a waste." P1 (Cervix Cancer, 49 Age)</p> <p>"My wife did not want her family to learn the cancer... But this was a trauma for me. You know, I didn't do anything bad, I didn't choose to get cancer, but I had to hide it... Mom, dad didn't tell his friends; my wife didn't tell her relatives that I had cancer, but if it was up to me, I'm a person who can tell everyone who can talk. This is a trauma for me." P8 (Testicular Cancer, 29 Age)</p>
	Shame	<p>"For example, when my wife wanted to kiss my neck, I wouldn't let her, I was uncomfortable, I thought she looked bad. My wife was trying to cheer me up, but I was very uncomfortable. Since the scarf could be seen from outside, I thought that everyone was looking at me." P13 (Thyroid Cancer, 29 Age)</p> <p>"Everyone is looking, wondering, you see they pity on you... So it's a very painful thing to see that you are being pitied." P13 (Thyroid Cancer, 29 Age)</p>
	Fear	<p>"The fear of death... I felt like I was going to lose my mind at any moment. It was very difficult at that time." P1 (Cervix Cancer, 49 Age)</p> <p>"Of course, the fact that my children are young, maybe having a young family, but there is a fear of death and there is a fear of what will happen to them." P3 (Breast Cancer, 53 Age)</p>
	Unhappiness	<p>"I was very impressed. I was worrying about my hair. My hair was long, straight, I cried a lot, I was very sad, I didn't want to get chemotherapy due to its effect on hair loss. I was very sad... When I got the second chemotherapy, my hair was always coming out, with my hands. I used to cry every God's day, day and night." P9 (Breast Cancer, 50 Age)</p> <p>"It was a little difficult for me to accept the disease, I couldn't get used to it a little. You don't want to live, you want to live and say what am I going to do... You feel that death is approaching, you look at it as a dying process." P12 (Colon Cancer, 75 Age)</p> <p>"It was very difficult or I was feeling very depressed. The constant thought is, come on, you've had surgery, but will you survive? I mean, okay, the doctor says that you have the best cancer possible" you're fine, but I don't think they understand that." P13 (Thyroid Cancer, 29 Age)</p>
	Feeling of loneliness	<p>"We have always tried to overcome a difficulty with someone, always with the support of someone. For the first time I felt very lonely, for the first time I thought I had to cope all alone." P5 (Breast Cancer, 43 Age)</p> <p>"They put me on a stretcher and brought me to the front of the operating room. I was wearing only an apron, I was naked, I was cold and I felt like a sacrificial sheep. Maybe I was going to die, I felt very vulnerable... my family was waiting outside the door. They left me there alone like that, so I waited for my fate." P13 (Thyroid Cancer, 29 Age)</p>
	Shock	<p>"First of all, of course, there was a period of shock. When my illness was first diagnosed, I woke up one morning and my voice was completely muffled... I have no voice... I never thought something like this would happen. And my voice never came for about 15 days, I couldn't speak at all, I was shocked." P13 (Thyroid Cancer, 29 Age)</p> <p>"I was the happiest, I was the one who was always running along the sidewalks, doing everything at the very end. This is not supposed to happen to me, so you're experiencing that denial." P6 (Lymphoma, 35 Age)</p>
Social problems	Conflict	<p>"We were very tense in the argument with my father. I told him, I mean, I said that I expected him to understand me a little more, so I didn't keep it in me, but my father continued to behave that way. Maybe he was doing it to relax me, because I think someone needed to stand up straight." P13 (Thyroid Cancer, 29 Age)</p> <p>"I went to middle school and high school separately from my parents. I got sick, my mother came in as the head of the treatment. There is already a very serious conflict there, you are trying to coexist in the same house with a person you have been separated from for many years, this caused deconfliction at first." P6 (Lymphoma, 35 Age)</p>
	Comparisons	<p>"There was also a comparison, he was the ugliest. Yes, we can all have breast cancer, but the treatment is different, the stage is different." P11 (Breast Cancer, 32 Age)</p>

**THEME 2: FACTORS OF PSYCHOSOCIAL PROBLEMS**

The psychosocial problems of cancer patients could be triggered by the individual himself, treatment team, disease, family, friends and society. Based on

the statements of the participants, 4 sub-themes were determined: (1) individual-related, (2) health personnel-related, (3) disease-related and (4) environmental-related factors (Table 3). Individual-related factors include 2 codes (personality structure and prosocial

**TABLE 3:** Sub-themes and codes about factors of psychosocial problems.

Sub-themes	Codes	Quotes
Individual-related	Personality structure	"The inability to be self-sufficient, to depend on someone, the inability to control myself. It turned out before I met with the psychologist that I was very controlling. I didn't prepare myself and I want to get up straight away and get rid of that probe. He said that my control had come into play, so I was having problems. Unfortunately, there is a dominant production... This feature of mine made it difficult for me to go through that period, actually, I'm trying to rasp a little, but it's getting difficult (don't laugh)" P1 (Cervix Cancer, 49 Age)
	Prosocial behavior	"I didn't tell my daughter about this diagnosis and the disease process, so we had to fit a huge (emphasis added) handle to it. You know, he was so small (smile) we didn't want to say it, it was a challenging thing..." P5 (Breast Cancer, 43 Age) "Well, I didn't tell my mother about my illness in any way. It was only while undergoing chemotherapy, Mom, that I had such an operation. I said, I need care, will you come... I didn't want her to be upset. I had a small audience, I said I had it removed" P10 (Breast Cancer, 40 Age)
Health personnel-related	Insufficient information sharing	"Of course, I'm a doctor, I know there will be a nasogastric probe, but I never thought it would be an operation that would take hours. I felt terrible when I woke up because I didn't know that the probe would be kept there for 24 hours. There was a pipe next to my stomach so that fluid wouldn't accumulate inside. That pipe was very thick (ii). For example, when I saw it, I was turned upside down like this. The fact that no detailed information was given about them, so maybe if I had known, I think it would have been easier if I had been prepared when I woke up. It was a problem not to be informed." P1 (Cervix Cancer, 49 Age) "None of them are saying that I am referring you to a psychologist or psychiatrist now, which usually needs to be referred to a clinical psychologist, I am referring you to a clinical psychologist now, our treatment will go together." P2 (Breast Cancer, 60 Age)
	Insufficient empathetic approach	"They were sentences that a cancer patient made without knowing exactly what he might go through. Maybe those sentences could have been a guide for a normal patient, but when I found out that I was terrified there (ii) it was difficult to put it that way." P1 (Cervix Cancer, 49 Age)
Disease-related	Connotations of the disease	"Death=It was cancer. I also thought it was a little early because I'm 33 years old." P10 (Breast Cancer, 40 Age) "Maybe I can say that cancer is associated with death, because when the doctor first told me that you have cancer, I thought, I wonder if I'm going to die. My grandfather also died of cancer. There is such an infrastructure... I'm sure he created a scheme at that time, cancer was something related to death, and it scared me a lot, I was very nervous." P13 (Thyroid Cancer, 29 Age)
	Changes related to treatment	"I'm not a very angry person. Normally, my tone doesn't go up at all. I know the side effects of the chemotherapy protocol I received, so it made me very angry, irritable. I would never yell at my parents, but... there was tension because of the anger caused by the illness, chemotherapy, medications." P8 (Testicular Cancer, 29 Age) "For example, the fact that the resistance is attached definitely restricts social life. They interfere with our daily activities, living with resistance, and they are a source of infection. Then there was radioactive iodine at work. It affects things like being isolated, the risk of infection, having difficulty doing self-care- it affected." P4 (Thyroid Cancer, 29 Age) "I had to come to school and teach classes. I couldn't speak, anyway, and my voice wasn't coming out much. For example, this made me very uncomfortable." P13 (Thyroid Cancer, 29 Age)
Environmental-related	Dysfunctional approach	"Some of them (his friends) were constantly stressing that I was going to die. You will die, your husband will get married! You will surely die, another mother will happen to your children! Some people stopped seeing each other because they had got used to my death. If we see each other, our bond will become stronger, and if I die, he won't be able to handle it psychologically." P11 (Breast Cancer, 32 Age) "When I had chemotherapy... Of course, the subject is neighbor, the treatment does not work, your hair has not fallen out. When my color turns yellow, you turn yellow at work, your blood has been drawn, is your condition serious?" P11 (Breast Cancer, 32 Age)
	Social pressure	"The fact that I was mocked for having only one breast will probably stick in my mind for the rest of my life." P11 (Breast Cancer, 32 Age)
	Social media	"It affected me a lot that I can't leave the house, I'm sleeping. Seeing my friends on social media." P10 (Breast Cancer, 40 Age)
	Deception	"Just when I started to recover, someone came into my husband's life, a high school sweetheart and a constant phone call, but something happened so that he became her husband, I became his friend... Abandonment is short and concise... Her presence still interrupts my sleep, enters my dreams, both the cancer and the incident of that woman, especially the incident of the woman outweighs..." P11 (Breast Cancer, 32 Age)
	Abuse	"My uncle spent everything he had on property at that time (during the treatment process)... He has the goods, the properties, we have the debts... The fact that someone you expected to be more supportive is hurting you damages your sense of trust (iii) you are angry." P6 (Lymphoma, 35 Age)
Lack of support	"For me, my mother and my wife had been very difficult. My mother was coming out very hard at that time, subject to these things that my wife was going through. I was mad at my mom, we've been married for a long time, because she was someone who came to help from the outside, so I expected her to be speechless and manage." P14 (Hodgkin's Lymphoma, 37 Age)	

behavior). Health personnel-related factors include 2 codes (insufficient information sharing and insufficient empathetic approach). Disease-related factors include 2 codes (connotations of the disease and changes related to treatment). The fourth factor triggered by the social environment are (family, friends, other patients, colleagues): (1) dysfunctional approach, (2) social pressure, (3) social media, (4) deception, (5) abuse, (6) lack of support.

### THEME 3: REFLECTIONS OF PSYCHOSOCIAL PROBLEMS

It has been found that psychosocial problems in the participants have reflections on 3 sub-themes: working life, individual himself and relatives (Table 4). The working life sub-theme includes 4 codes (career direction, corporate belonging, interpersonal relationships and division of labor). Individual himself sub-theme includes 2 codes (change and awareness). Relatives sub-theme includes 3 codes (psychiatric disorder, interpersonal relationships, and traumatic life).

### THEME 4: SOLUTIONS FOR THE PSYCHOSOCIAL PROBLEMS

Solutions for psychosocial problems of cancer are classified under 7 sub-themes: (1) individual himself, (2) co-work team, (3) family members, (4) treatment team, (5) relatives, (6) other cancer patients and (7) friends. Individual himself sub-theme includes 11 codes (preoccupation with therapy, acting as it comes from within, contacting a psychologist, treatment orientation, proactive behavior, education orientation, job orientation, psychological endurance enhancement, isolation, health literacy development, and spirituality orientation). Co-work team sub-theme includes 3 codes (providing social support, providing convenience and organizing training). Family members sub-theme includes (being understanding, supportive approach and individual research). Treatment team, relatives, other patients, and friends sub-themes are combined within 1 code (supportive approach) (Table 5).

## DISCUSSION

This study expands the conceptualization of solution approaches by conveying the treatment processes in detail, emphasizing the interaction of the person with

the inner world and the environment. As a result of the conducted analyses, it was determined that the psychosocial problems during the cancer process were grouped into two groups, emotional and social problems. The most expressed emotional problems are fear (9) and unhappiness (8). Tan et al. also revealed that people experiencing cancer experience feel isolated, and fear of death.<sup>21</sup>

Literature shows that after the treatment process starts, cancer patients have difficulties balancing their biopsychosocial dynamics. They might have some problems; anger management difficulties, sleep disturbance, emotional imbalance, social isolation, stigmatization, intensive fear and anxiety about future, adjustment disorder, delirium, depression, decreased quality of life, suicidal thoughts.<sup>7-9,15,24,25</sup>

Wondimagegnehu et al. found that after the cancer diagnosis, patients have emotional distress, suicidal risk, denial, and refusal of treatment; during the cancer process, patients have hopelessness, depression, and fear of death.<sup>26</sup>

In this research, the experiences of breast cancer patients on body image are very interesting. Participants stated that they did not feel like a woman after being diagnosed. Moore et al. also found that physical changes in patients cause shifts in their identity and body image, and patients experience unhappiness due to this condition.<sup>27</sup> External feedback leads to cognitive, emotional, behavioral effects and limitations of patients over time.<sup>28</sup>

Secondly, it has been determined that the factors that cause psychosocial problems in cancer are caused by the individual, treatment team, disease and the environment. Factors originating from the individual arise due to personality structure and prosocial behavior. It has been observed that being controlling and low uncertainty tolerance increases anxiety. It has been determined that uncertainties in the diagnosis process lead to many problems, have negative effects on fear of the future, providing for health needs and adapting to treatment. While these negativities lead to disruption of some people's lives, loneliness and emotional distress; for some people, they have increased their functional coping strategies.<sup>21</sup>

**TABLE 4:** Sub-themes and codes about reflections of psychosocial problems.

Sub-themes	Code	Quotes
Working life	Career direction	"As a physician, I realized that detailed information was not provided, and I also did not do it on time. Maybe that's why I'm attending psycho-oncology trainings. I want to work in this field." P1 (Cervix Cancer, 49 Age) "I changed my job, I made a choice. I decided to work in a job where my time is valuable and I can create value quickly, and my success at work has increased a lot. I started doing everything better in a short time, so my career went better as well." P14 (Hodgkin's Lymphoma, 37 Age)
	Corporate belonging	"I don't know if he likes it, but my belonging to my workplace has increased a little because I feel that he cares there. I feel corporate belonging." P1 (Cervix Cancer, 49 Age)
	Interpersonal relationships	"I broke off my relationship with my colleagues. I'm not friends with them anymore like I used to, so we were very close friends, what we ate and drank didn't go separately. But I don't see them anymore because they don't support me enough." P13 (Thyroid Cancer, 29 Age) "I think this is where I took the best action, I wasn't meeting with those who weren't good for me, I was meeting with those who were good." P14 (Hodgkin's Lymphoma, 37 Age)
	Division of labor	"If I have to do something in business life, I will do it. For example, with help as it should be. I used to be a single hyena. I think I should share it now because it's causing me a lot of stress. We can share the task." P4 (Thyroid Cancer, 29 Age)
Individual himself	Change	"I already do my best, but now my tone of voice is controlled, especially if I can't get a single word out of my mouth that will break my sisters. I am much more attentive. I express my love much more often. I don't normally kiss alum alum, I kiss now." P1 (Cervix Cancer, 49 Age) "When I got diagnosed, I was working really hard. I was working as a workaholic. I questioned myself, put what I had lost on a scale. I took a break for a certain period of time and went on a more work-balanced path, which I enjoyed." P3 (Breast Cancer, 53 Age) "Once I feel stronger, I feel like I can adapt more easily if something like this happens to me again, as I just said." P5 (Breast Cancer, 43 Age) "I used to be more constructive, thinking better, sensitive side, now I'm well selfish, I think more about myself. When I used to be someone who was in the let no one be offended mode, now I think about myself first." P8 (Testicular Cancer, 29 Age)
	Awareness	"There have been changes in my personality. I started to care more about myself (don't laugh). I learned to take time for myself. I'm slowly learning to say no to people. Myself first (don't laugh)." P10 (Breast Cancer, 40 Age) "Actually, I don't need to be so controlling, and I don't need to wear out the people we're up against. For example, I was very controlling before, and then I relaxed, and I became more flexible, more elastic both in my personal life, my child, and my work." P14 (Hodgkin's Lymphoma, 37 Age) "It's actually made me stronger because I'm taking care of my baby. I'm getting my treatment, my self-confidence has increased, I wasn't like that." P14 (Hodgkin's Lymphoma, 37 Age)
Relatives	Psychiatric disorder	"I realized that I can't control everything." P1 (Cervix Cancer, 49 Age) "I saw that there was no one I wanted to tell, it's very important, so I realized that there are few people around a person who can say what I can do for you." P2 (Breast Cancer, 60 Age) "When I put people's behavior into the equation, I've learned a lot about myself, my perspective on people, my judgment." P14 (Hodgkin's Lymphoma, 37 Age)
	Interpersonal relationships (spouse, family, friends)	"All the family members are in good health, but there is a patient at home. They also get sick, they are no longer normal. They are so badly affected that they are just as sick. My daughter has started taking antidepressants. Then he doubled the doctor 2 times. He took excellent care of me, kept me afloat but (he) was devastated." P2 (Breast Cancer, 60 Age) "I can say that cancer has doubled my family in terms of love. I saw a lot of positive sides because everyone gained an awareness. The children have settled the concept of there is today, there is no tomorrow very well, and frankly, our ball of love has doubled." P3 (Breast Cancer, 53 Age) "I think there is also a development in them, not only we, but also the people around us, are growing and developing in such events... We have all learned together what to call a person who experiences such a thing, how to treat it." P5 (Breast Cancer, 43 Age) "Yes, as a mother... I needed a 7-year-old and a 10-year-old. They are enough to turn a house around right now, in the food, cleaning, dishes, laundry, because they acted as if their mother did not exist." P11 (Breast Cancer, 32 Age) "Up to that point, I had somehow taken over everything. But when I became needy, he faltered a lot... so sometimes I also suffered emotional violence at points where he couldn't control his emotions. Anyway, it kept increasing and we got divorced... When his balance was disturbed, our frequency was disconnected. It led to more quietness and coldness in me, to great aggressiveness in him." P14 (Hodgkin's Lymphoma, 37 Age)
	Traumatic life	"You're 27 years old, you wake up one morning, you're menopausal, you don't have hair, you don't have breasts. It was not a one-person trauma incident. It was also very difficult for my wife... And of course, my children's school life was always disrupted because of me, my successful children failed... They invited me to my little boy's school, I took off (his wig) when he was sweating involuntarily, my son hid under the table, his friends, his mother was bald, and so on, they approached him mercilessly." P11 (Breast Cancer, 32 Age) "I mean, I always remember my wife very sad, trying to be very supportive and tired. For example, my father started talking very little at that time, he was very withdrawn." P14 (Hodgkin's Lymphoma, 37 Age)

TABLE 5: Sub-themes and codes on solutions in psychosocial management.

Sub-theme	Code	Quotes
Individual himself	Preoccupation therapy	"I keep a diary, I write down all the troubles I've been through there, maybe my own patients will make an inference when I get back." P2 (Breast Cancer, 60 Age) "I wrapped it in something, succulent (a type of cactus) feeding, raising (laughing). Don't grow those flowers, don't mess with the soil. I started to deal with it in a slightly exaggerated way. (iii) This has done me a lot of good. I have made a preoccupation for myself with them, such as preparing and sending gifts to a lot of people." P5 (Breast Cancer, 43 Age)
	Acting as it comes from within	"Either actually (mm) I didn't see anything as forcing anyone, so for example, I know that I took my bladder in my hand and went to the grocery store... it's very cold outside, and I didn't have underwear, I can't wear it, you can't wear it, because of the probe (ii)... I didn't see it as an obstacle to anything. You know, there was a situation, I have a period to get through, and if I'm going to do what I need to do is go to the grocery store, yes, I'll go." P1 (Cervical Cancer, 49 Age) "For example, for shame, I would answer if my phone rang, my doctor told me. If you don't want to talk when the phone rings, it could be someone you love very much, he said don't answer. At that time, I didn't talk if I didn't feel like it, I felt very good about the most precious thing. I'm not trying too hard to communicate with myself right now either." P15 (Lymphoma, 29 Age)
	Contacting a psychologist	"I immediately arranged for a psychologist, went, saw him and gradually recovered from that point on." P1 (Cervical Cancer, 49 Age)
	Treatment orientation	"I think I managed this process successfully... I think I managed myself very well.. Besides, it was important to be very ambitious for my treatment, eat very well, hug the treatment with four arms, start my chemotherapy on my own will and finish it on my own will without interrupting. I knew it would be very difficult, but I wanted to get out." P8 (Testicular Cancer, 29 Age) "How many of my neighbors have gone (died) so. I think if they had taken "tez" (fast) because they didn't take him to treatment, maybe he would have survived... I say, see your treatment while you are studying, and then the remedy is not possible, the more time this job has, the more trouble you don't take." P12 (Colon Cancer, 75 Age)
	Proactive behavior	"I realized that I was thinking about what could have happened and tried to take their precautions... believe me, I tried to do whatever it took to get better." P1 (Cervical Cancer, 49 Age)
	Education orientation	"I devoted myself to education during that process. I already studied sociology for 4 years, then I got an education. I'm going to start family counseling training now, I've registered (don't laugh). I haven't been able to give the subject of my master's thesis about cancer patients and their families yet, but (don't laugh)... I started to find factors that will improve me and not make me think about more cancer. It's like education." P1 (Cervical Cancer, 49 Age)
	Job orientation	"I went to the wedding dinner, washed dishes... Bald, no hair, no eyebrows, no eyelashes. It caught the attention of the nation that no one called me that day to see if you needed money. No, I needed it so as not to cut myself off from society, and I did it well." P11 (Breast Cancer, 32 Age)
	Psychological endurance enhancement	"I usually use the method of convincing myself. Okay, you need some time, don't get upset about it right away, don't get scared right away, convincing myself that it's going to pass (ii)... " P3 (Breast Cancer, 53 Age)
	Isolation	"Of course, there were also people who talked nonsense. While I was receiving chemotherapy, someone came here, there was my friend, she died of breast cancer (voice sprain, not a full laugh). There have been people I haven't talked to." P10 (Breast Cancer, 40 Age) "My sisters, my mother, they were always calling. My daughter would come back, I wouldn't talk to them much. Because the moment I talked to a person, I was crying. I can't help myself... I couldn't talk to anyone." P9 (Breast Cancer, 50 Age)
	Health literacy development	"I have read a lot. In other words, the disease, the treatment process, the risks that may occur, the precautions that need to be taken. I was a lot of researcher, it was good for me. I asked doctors, I searched on the internet, I interviewed people who had experienced the same thing. Therefore, do not always receive such information." P5 (Breast Cancer, 43 Age)
Spirituality orientation	"I started haitim at that time. I have memorized 99 names of Allah in 25 days. I have always read the Quran and prayed. I read religious books... prayed to Allah, gave thanks, prayed, worshipped." P7 (Breast Cancer, 35 Age)	

**TABLE 5: Sub-themes and codes on solutions in psychosocial management (continued).**

Sub-theme	Code	Quotes
Co-work team	Providing social support	"I was working in a good institution, so it had a lot of impact on conscious people both in terms of the support they gave me and maybe feeling valuable. Because you also feel worthless during this period." P3 (Breast Cancer, 53 Age) "My thesis advisor sent me flowers after the surgery. There was a note on it that said: we still have a lot to do, we still have a lot to achieve. That was something that kept me going a lot. It meant a lot to me." P13 (Thyroid Cancer, 29 Age)
	Providing convenience	"He was my number one supporter, he supported my work, so by saying you set all the hours... And I saw that it's a bad thing to say go to bed at home, rest, don't work anymore, quit life. It's an expression like you're not alive anymore, you're kind of half dead." P2 (Breast Cancer, 60 Age)
Family members	Organizing training	"At the same time, 2-3 people came out with me, the institution I work at had a training on how to approach cancer patients. It is also good for the cancer patient to encounter the right approaches." P3 (Breast Cancer, 53 Age)
	Being understanding	"They respected my decisions, they didn't insist, they respected what I had to do." P10 (Breast Cancer, 40 Age) "Thanks to my family, my shouting and stuff attracts me, I can shout at them very nicely (don't laugh)." P11 (Breast Cancer, 32 Age)
	Supportive approach	"They've always been supportive, so do you always have a need, where can we help you? Should we take your kids to theater activities, you can't leave the house. The offers of help really happened." P3 (Breast Cancer, 53 Age) "My bathroom, toilet, the salad I ate, everything was separate. We started eating in the living room instead of in our dining room because I was uncomfortable with the smell. They were changing everything... For example, my hair fell out, my mother was constantly saying, let's get it out." P15 (Lymphoma, 29 Age)
Treatment team	Individual research	"Especially my wife has read a lot of articles. He banned me from the Internet. He said I would do research. We followed the developments with articles, he (Husband) guided me." P10 (Breast Cancer, 40 Age)
	Supportive approach	"I didn't expect such a big injury. He said that I have a serious wound, but I like it very much. Do you want me to show you? Said. He opened it and showed it. It made me feel so good." P1 (Cervical Cancer, 49 Age) "It was very, very good, my doctors had such an approach that I would say it was more than a mother's, a father's compassion. When my doctor came for a visit in the morning, I wanted to kiss his hand, he wouldn't let me, just like a father shows affection to his puppy... They were approaching like feathers while checking so that I wouldn't get hurt, they were so compassionate, so merciful, how can I say that God probably gave them something." P7 (Breast Cancer, 35 Age)
Relatives	Supportive approach	"They were coming for me, they were sitting, they were not bringing it up at all, they were leaving." P15 (Lymphoma, 29 Age) "We are a crowded family, they all fell on me a lot, they were very attentive. They were making and bringing organic things. It made me very happy, I stayed at my sisters-in-law's for 10 days each. They picked up the children on a winter's day, took me to the zoo. My orange juices were specially squeezed. The food will be cooked specially, it will wait in vinegar water, so I am really very lucky to have such a family." P7 (Breast Cancer, 35 Age)
	Supportive approach	"We had an aunt, she helped me a lot. When he had the surgery, he said it had been 8 years for me. The patients understand the patients, they have been very supportive, like falling from the roof." P7 (Breast Cancer, 35 Age) "Someone came to me and said, don't be afraid, you will get through this process. Look, I got through it. That's when his hair came out. You don't have hair, he said that as soon as this chemotherapy is over, your hair will come out again. If you say that if you are strong, I will overcome this, you will overcome... you will fight for the children, you will never let yourself go." P9 (Breast Cancer, 50 Age)
Friends	Supportive approach	"And they (friends) appreciated me very much during this process. He also gave me some strength. Everyone said that if I went to the doctor even with the suspicion of this, I would die." P15 (Lymphoma, 29 Age)

The factors of psychosocial problems due to the treatment team are triggered by insufficient information sharing and insufficient empathetic approach. In this study, Tan et al. similarly with, participants expressed that they often felt a lack of information and confusion at various stages during the disease process.<sup>21</sup> To handle these issues, patients need accurate and hopeful information from the treatment team. Norouznia et al., found that breast cancer patients receiving chemotherapy have physical, psychological, and sexual concerns that need to be addressed by healthcare professionals before and during chemotherapy. Another way of coping is to increase awareness about the cancer and its challenges on patients' daily lives, communication ways with others and self.<sup>29</sup>

Patients expressed that they expected physicians to be honest about the prognosis, but not to constantly focus on the negative. With an empathetic approach, patients' confidence, perceived support levels, ability to receive adequate and functional information increase, but reduce fears. While optimism increases in people who develop positive relationships with healthcare professionals, it can be seen that feelings of isolation and distress increase in others.<sup>21</sup>

The factors of psychosocial problems by the disease come to the agenda due to the connotations of the disease and the changes related to treatment. The problems about the connotations of the disease arise because cancer evokes death. Treatment-related changes are caused by dependence on others, and body changes.

Environmental factors focus on dysfunctional approach, social pressure, social media, deception, abuse, and lack of support. Moore et al. have focused on how different patients feel in the clinic compared to the outside world. It has been stated that they feel more comfortable in the hospital room, but they are afraid of being stigmatized in a social environment.<sup>27</sup>

Thirdly, the reflections on the psychosocial problems experienced during the cancer process have been related to his working life, himself and his relatives. It has been seen that the psychosocial prob-

lems experienced by patients, especially during and after the treatment process, lead to changes in their daily lives, relationships and goals. Tan et al. explained that patients experience a sense of loneliness, want to be isolated and avoid sharing their own experiences with others.<sup>21</sup> Similarly, in this study, findings have been obtained that they prefer not to talk because they are worried about the perceptions and stigmatization of those around them and that they move away from social environments.

As an example of the reflection of family dynamics, patients' fear of the future can be said. Patients have expressed that they are worried about their families' coping methods during this process and that they will experience difficulties in the later stages of treatment, and as a result, they experience feelings of guilt.<sup>21</sup> Similarly, this research has also stated that the roles of family members and expectations of each other have changed during the diagnosis and treatment period of patients. Fourthly, patients stated that chatting with other cancer patients is beneficiary for finding solutions for psychosocial problems. The treatment team, families, relatives, friends and co-work friends are also the other supporters.

Finally, while the participants' solution approaches for themselves are individually mind-distancing and personal development-oriented activities, the expectation for a solution from the treatment team, family and friends is supportive, unconditional acceptance is realized through empathic communication. Barakat et al. stated that young adult patients request additional support groups and therapy.<sup>30</sup> Similarly, Moore et al. found that cancer patients felt neglected in terms of not being asked how they were doing and defined their need for more health support before and after treatments.<sup>27</sup> Matsui et al. also conducted a study to analyze using psychosocial support services among cancer outpatients in Japan. The findings indicated a necessity to formulate strategies that elicit outpatients' perspectives on their issues, enhance the quality and utilization of support services, and alter patients' attitudes toward seeking support to encourage proactive help-seeking behaviors.<sup>31</sup>

Considering the findings of this study, it is seen that physicians should be a bridge between family members and patients with their effective communication skills during the treatment process. Communication of individuals suffering from the disease with family members, relatives, friends, other cancer patients and even themselves, who make up their immediate environment, is very important during the recovery process of the disease. The relatives of the patient who are in constant communication with the patient or the people accompanying the patient can see for themselves that communication is an effective auxiliary treatment method for the patient's recovery after receiving basic training on effective communication skills.<sup>32</sup> In addition, Eliot and Oliver found that patients with cancer cling to life as a result of communication with nurses.<sup>33</sup> In a study conducted by De Martini et al., cancer patients stated that their family members, friends and physicians influenced their hopes.<sup>34</sup> In a study conducted by Lannie and Peelo Kilroe with elderly cancer patients, it was found that the treatment team's approach was important and effective in increasing hope for recovery.<sup>35</sup> Another factor about treatment process is chatting with other cancer patients who have completed treatment successfully. This kind of chatting and meeting increases their hope that they will also survive and overcome prejudices.

## LIMITATIONS

This study has also several limitations. To ensure the heterogeneity of the samples, the selection criteria were kept wide. Although it is thought that focusing on a single type of cancer would increase the reliability of the results; in this study, people with different types of cancer were interviewed. This provides an opportunity to understand the perspectives and experiences of different groups more comprehensively, but it is not possible to generalize. Since the number of male clients applying for psychological treatment is quite limited, there is only one male participant in this study. Therefore, it can be stated that the gender representativeness is not high. Finally, since this research was conducted in Türkiye, some themes may have emerged by being influenced by the culture and stereotypes of society.

## CONCLUSION

In this study, the resulting conceptual model offers an important contribution to the psychosocial problems of cancer patients. The statements of the participants give important inferences to share the most private moments.

Our study also has several strengths. Given the paucity of data on the experiences of cancer patients 1 year post-treatment and in remission, qualitative research was appropriate to gain an in-depth understanding of the lived experiences of cancer patients that was not possible with quantitative tools. This approach left open the possibility of exploring ideas not previously represented in the literature, such as survivorship surprise.

It has been revealed how important the attitude and communication of the treatment team towards the patient is in the provision of health services. Even patients with medical team complained that they were not adequately informed by the treatment team. They need general information about the disease, treatment options and their processes, its probable side effects, and ways to cope with these complications.<sup>29</sup>

Another important issue is adding psychologist and dietitian services into the cancer treatment protocol. According to the patient's statements, they are mostly in interaction with physicians, family, and friends. So they need to have a clear understanding, positive, constructive, empathic and solution-oriented communication with these people.

Considering needs, the mental and social effects of cancer during medical treatment should be evaluated by researchers and studies should be developed to raise the awareness of the entire treatment team. Specialists and researchers should carry out studies to ensure that the psychosocial needs of patients are functional. Sociological studies of social prejudices, cultural sanctions or expectations should be carried out and steps should be taken towards change. Psychooncologists should increase informative and educational practices for non-cancer people on how to communicate openly with cancer patients with an empathetic approach. The treatment team, on the other hand, should participate in training aimed at improving psychological interviewing skills in addition to medical training.

The subjective experiences of cancer patients after active treatment is completed, are underrepresented in the literature. Our results provide valuable insights into the cancer related psychosocial problems, issues, needs, and expectations of these patients and how these needs are recognized by the immediate environment, treatment team, and community. It is imperative that treatment team, mental health professionals, researchers, social environment, and even public could increase their awareness of these cancer related psychosocial problems and what to do to help patients during these processes. In addition, attending national and international public health programs related to cancer could be helpful to overcome blaming, stigmatizing, non-empathic communication approaches, and dysfunctional interactions with cancer patients.

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### Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

### Authorship Contributions

**Idea/Concept:** Esra Savaş, Sümeyye Özmen; **Design:** Sümeyye Özmen; **Control/Supervision:** Esra Savaş, Sümeyye Özmen; **Data Collection and/or Processing:** Esra Savaş; **Analysis and/or Interpretation:** Sümeyye Özmen; **Literature Review:** Sümeyye Özmen; **Writing the Article:** Esra Savaş, Sümeyye Özmen; **Critical Review:** Esra Savaş, Sümeyye Özmen; **References and Fundings:** Esra Savaş; **Materials:** Esra Savaş.

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