



Examining Nursing Students' Perspectives on Cancer through Metaphors in Turkey

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Accepted: 10 February 2022 / Published online: 3 March 2022

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Abstract

This study was conducted to reveal the perceptions of cancer through metaphors among second-year nursing students. This study utilized descriptive phenomenology, which is a qualitative research design. In order to reveal the metaphors that each nursing student ($n = 65$) considered for the concept of “cancer,” they were asked to complete the following sentence: “Cancer is like, because” In analyzing the data, a content analysis approach comprising coding, the identification of themes, and grouping of data according to codes and themes was used. It was found that the nursing students produced 44 different metaphors. With the groupings made from the students' perspectives on cancer, categories of “crime/punishment,” “fear/anxiety/pain,” “uncertainty,” “uncontrollability,” and “struggle/hope” were identified. In particular, the students' metaphors of “test,” “fight,” “unwanted friend,” “love,” “naughty child,” “thief,” and “trouble” for the concept of cancer came to the fore. It is recommended to improve clinical education to develop positive attitudes among nursing students toward cancer.

Keywords Cancer · Metaphor · Nursing student · Perspective

Introduction

Cancer is an important public health problem in today's world. Beyond being a chronic disease, cancer is a condition that presents with pain symptoms and creates anxiety with forebodings of death (Yılmaz et al., 2017). Individuals who have cancer constitute a group of patients for whom nurses provide care

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frequently. The fact that biopsychosocial–spiritual problems and unmet needs are higher among cancer patients compared to other patient groups has caused cancer patients to be evaluated as a special group that needs more nursing care management (Bozdoğan Yeşilot & Öz, 2017; Kocaman Yıldırım et al., 2013; Thorsen et al., 2011). A biopsychosocial–spiritual model is a holistic approach that acknowledges the interactions among physical, psychological, social, and spiritual aspects of patient care and patient well-being (Beng, 2004; Galbadage et al., 2020). Patients are considered as beings-in-relationship, and illness is regarded as a disruptive force in biological relationships that can impact all other relational aspects of the patient (Galbadage et al., 2020). In addition, according to this model, one’s spiritual state may in turn be modulated by the person’s biopsychosocial state, and the spiritual state may also modulate the biopsychosocial state. The composite state, or how the patient feels physically, how the patient is faring psychologically and interpersonally, and how the patient is progressing spiritually, constitutes the substrate of the construct called quality of life (Sulmasy, 2002).

Nurses have important roles in the disease and treatment processes of cancer patients with their potential to affect and improve the quality of care at all levels. The roles and responsibilities of oncology nurses include patient assessment, care coordination, patient care, symptom management, patient and family education, and the provision of supportive care (Bağçivan et al., 2015; Öztürk et al., 2016). Nurses should be aware of their own perceptions, attitudes, and beliefs to provide qualified and high-quality care to patients and their families from a holistic perspective. In addition, the knowledge, skills, and approaches of nurses who provide continuous care to sick individuals should be at professional levels (Stergiou-Kita et al., 2016).

A nurse’s individual thought system, perspectives on life, and perceptions of spiritual care and spiritual care needs also affect the quality of care (Çetinkaya et al., 2007; Khairunnisa, 2014). Nurses should provide care while being aware of their own feelings, attitudes, preferences, and prejudices, recognizing their right to have their own beliefs but not allowing their own values and beliefs to take precedence over those expressed by patients and their families (Sherman & Free, 2019). Recent studies show that nurses and nursing students have pessimistic attitudes toward cancer and cancer-related pain and death (King-Okoye & Arber, 2014; Sanford et al., 2011). In this context, how the concept of cancer is perceived by nurses and nursing students is very important. Therefore, in this study, the concept of cancer will be examined in the framework of the metaphorical perceptions of nursing students.

Metaphors are statements expressing a phenomenon or a concept in more familiar and known terms. They are advanced linguistic constructs used to express similarity, closeness, and relationships that cannot otherwise be fully expressed. It is well known that metaphors are central tools in both communication and thinking. Different metaphors frame the same subject in different ways, facilitating different inferences and evaluations (Güneş & Firat, 2016). Many benefits of metaphors, which are used effectively in education and training processes, have been observed. It can be said that the use of metaphors is helpful in expressing difficult subjects and concepts in a simpler and more understandable way in education and teaching processes (Marshall, 2010).

The first word for cancer in the medical literature, *karkinos*, which means “crab” in Greek, appeared in the time of Hippocrates, around 400 BC. Tumors surrounded by swollen blood vessels reminded Hippocrates of crabs whose legs are laid out in the shape of a circle while digging through the sand. While the analogy is equivocal as there are very few tumors that actually resemble crabs, it certainly produced a vivid image. Later, various authors, doctors, and patients added details to that image. The hardened and matted surface of tumors resembled the hard shells of crabs for some people; some wrote that they perceived the disease to spread insidiously in the body like a crab moving under the skin, and others said that the pain that suddenly struck during the course of the disease was like being caught in the claw of a crab. Another Greek word, *onkos*, also entered the history of cancer as it was also used to describe tumors from time to time, later becoming the name of the discipline that we now know as oncology. *Onkos* means “mass” or “burden” in an abstract sense in Greek, and cancer was perceived as a burden the body had to bear (Mukherjee, 2020).

Considering the high probability of nursing students encountering cases of cancer, which is one of the most common health problems, as they start their professional lives, this study is important in terms of identifying inappropriate attitudes and beliefs of students and providing training to help improve them for the adoption of an appropriate approach to cancer patients in the future.

Objective

The purpose of this study is to reveal the perceptions of the concept of cancer among second-year nursing students through metaphors. Within the framework of this general objective, answers were sought for the following questions:

- What are the metaphors that second-year nursing students use for the concept of cancer?
- In what conceptual categories can these metaphors be grouped?

Methods

Study Design

This study employed descriptive phenomenology, which is a qualitative research design. The phenomenology design focuses on phenomena that we are aware of but for which we do not have in-depth and detailed understandings. Phenomenology provides a suitable research base for studies of topics that are not completely alien to us and aids us in investigating phenomena that we cannot fully grasp (Yıldırım & Şimşek, 2006).

Metaphors are used as a scientific research method. As a qualitative research method, metaphor analysis can be considered a more useful and an easier research method compared to typical individual interviews, focus group interviews,

observations, or document reviews (Güneş & Fırat, 2016). When a typical “metaphor-focused” qualitative data collection process is used alone, rich metaphors can be obtained from interviewees with one or more open-ended questions (Yıldırım & Şimşek, 2006). These metaphors can provide more personal and deeper insights. The systematic reflection of metaphors in qualitative research provides data on which we can reflect, speak, and act. When determining the target area in metaphor analysis, as in many other qualitative research methods, the topic is selected first, the questions to be asked are then identified, and templates of the study and the evaluation process are formed (Schmitt, 2005). After all these preparations are completed, the collected metaphors are then grouped and common themes are identified. It should be noted that the language that people use in expressing themselves brings their subconscious to the surface, which is critical for researchers attempting to understand and analyze metaphors correctly to conduct their studies properly. The analysis to be performed among the selected topics requires a detailed evaluation (Erarslan, 2011; Güneş & Fırat, 2016).

Participants

All second-year nursing students in the Nursing Department of the Faculty of Health Sciences of a Turkish university constituted the study population. The sample initially consisted of 74 students who agreed to participate in the study. However, the data obtained from 9 participants were not included in the study due to incomplete information and logical errors in the reasons expressed for the developed metaphors. The study was thus completed with 65 students. A list was obtained by defining the metaphors produced by the students as concepts. Accordingly, attention was paid to whether the metaphors were clearly expressed or not. Inclusion criteria were as follows: (1) being older than 18 years of age; (2) being enrolled in the second year of the nursing program; (3) being able to read, understand, and write Turkish; and (4) being willing to participate in the study and sign a written informed consent.

Data Collection

The data of the study were collected before the “Cancer and Nursing Care” unit in the 8th week of the Internal Medicine Nursing course with a form specially prepared for the students. The first section of the form included demographic questions such as age and gender, while the second section of the form included the sentence “Cancer is like, because” for participants to complete to identify the metaphors they developed related to the concept of cancer. Participants were asked to liken cancer to something else (an entity, a living thing, an object, etc.) and briefly state the reason for that analogy. These compositions, written by students in their own handwriting, were used as the main data source in this study. Completion of the form took approximately 10 min.

Data Analysis

Metaphors for nursing students' perceptions of cancer were formulated as "because it is" In this context, by considering the explanations in interview forms, categories were identified according to cohesion. In analyzing the data, frequency (f) values were examined. A qualitative research method was used to produce more detailed and richer information about people and situations, and the content analysis method was used to analyze the data. The analysis and interpretation of the data consisted of five stages (Saban, 2009):

1. Coding and sorting phase

The data were encoded as numbers. Nine interview forms were excluded as they included metaphors without explanations and/or expressions that were not meaningful.

2. Metaphor compilation phase

The metaphors produced by participants were analyzed with codes and the produced metaphors were addressed by establishing relationships between similar ones.

3. Category creation phase

The metaphors produced for cancer were categorized according to their justifications in the "because....." phrases.

4. Validity and reliability phase

Validity and reliability are important concerns regarding the stages of establishing the conceptual framework of any research regardless of its type and collecting, analyzing, and interpreting the data and presenting the findings (Merriam, 2013). According to Yildirim and Şimşek (2006), a detailed explanation of the process from data collection to results is important to ensure validity in qualitative studies. In the present study, the data analysis process has been explained in detail to ensure validity. In addition, after the categories were identified, in order to ensure reliability, an expert working in the nursing department was given a piece of paper on which the metaphors and reasons were written out together with the names of the conceptual categories. The expert was asked to match them. After all metaphors were matched with a category, the results were compared with the researcher's matches. For this comparison, the formula of "Reliability = Consensus / (Consensus + Disagreement)" (Miles & Huberman, 1994) was applied and the reliability was accordingly calculated as $36 / (36 + 8) = 0.81$, which indicates that the study is reliable.

5. Transferring the obtained data to a computer

The metaphors were categorized according to their justifications and the frequency (f) of the number of participants in each category was calculated. The metaphors, which were categorized according to their justifications, were coded as reported by participants. The letters M (male) and F (female) were used for the gender of the students while attributing quotes to participants. The ages of the students are specified as A19, A20, and A21.

The metaphors that emerged as a result of the research were categorized by taking their common features and analogical aspects into consideration. Frequency, percentage, mean, and standard deviation were calculated using IBM SPSS Statistics 21.0 in the analysis of the students' demographic data.

Ethical Considerations

Permission to carry out the study was obtained from the Scientific Research and Publication Ethics Committee of Kastamonu University (Decision number: 21/2020). In addition, institutional permission was obtained from Kastamonu University for the implementation of the research. Informed consent was obtained from all students who participated in the research.

Results

In this section, information on the demographics of the students and the metaphors they developed for the concept of cancer are provided. The mean age of the students was 20.03 ± 1.43 (range 18–25) years, and 72.3% of them were female. Among the family members and circles of friends of 78.5% of the students, no individual had received cancer treatment. While 84.6% of the students stated that they did not receive any training on cancer/oncology nursing, 90.8% had not provided care for patients diagnosed with cancer in clinical practice (Table 1).

When Table 2 is examined, it is seen that 65 nursing students produced 44 different metaphors in the form of “Cancer is like, because” Students compared cancer mostly to a fight (f: 6, 8.5%), a test (f: 5, 7.1%), and love (f: 4, 5.7%).

The metaphors produced by the students were categorized as “crime/punishment,” “fear/anxiety/pain,” “uncertainty,” “uncontrollability,” and “struggle/hope” (Fig. 1). In the crime/punishment category, there were 5 metaphors formed by 7 nursing students. Thirteen metaphors were identified by 22 nursing students in the fear/anxiety/pain category, 11 metaphors were identified by 13 nursing students in the uncertainty category, 8 metaphors were identified by 10 nursing students in the uncontrollability category, and 7 metaphors were identified by 13 nursing students in the struggle/hope category. The categories of metaphors obtained as a result of content analysis are visually presented in Fig. 1.

Table 1 Participant sociodemographic characteristics ($n = 65$)

Variables	Mean \pm SD ^a	Min.–Max. ^b
Age	20.03 \pm 1.43	18–25
	<i>n</i>	%
<i>Gender</i>		
Female	47	72.3
Male	18	27.7
<i>Perceived Health Status</i>		
Bad	10	15.4
Neither good nor bad	24	37
Good	31	47.6
<i>Having an individual who has been treated for cancer among family members or friends</i>		
Yes	14	21.5
No	51	78.5
<i>Having received any training in cancer / oncology nursing</i>		
Yes	10	15.4
No	55	84.6
<i>The means through which knowledge regarding cancer was acquired (n = 10)</i>		
During undergraduate education	–	–
Scientific meetings including conferences, symposiums	1	10
Scientific articles and publications	2	20
Media outlets such as radio, television, newspaper	7	70
<i>Having cared for patients diagnosed with cancer in clinical practice</i>		
Yes	6	9.2
No	59	90.8

^aSD: Standard deviation

^bMin.–Max.: Minimum–Maximum

Discussion

In her book entitled *Illness as Metaphor*, Susan Sontag wrote, “The honor of being a disease that comes in without knocking now belongs to cancer” (Sontag, 1990). Metaphors are not only figures of speech but also figures of thought (Eraslan, 2011). The brain processes abstract ideas at the level of perception by transforming one concept into another. The metaphors that are produced play a significant role in viewing cancer as often the worst and darkest thing that has ever happened compared to other diseases. The purpose of our study is to examine metaphorical perceptions of cancer among nursing students, who will be future health professionals. The metaphors produced by participating nursing students were categorized as “crime/punishment,” “fear/anxiety/pain,” “uncertainty,” “uncontrollability,” and “struggle/hope,” and it was seen that it would be difficult

Table 2 Metaphors developed by participants

Metaphor code (MC)	Metaphors	n	%	Statements of the participants regarding the reasons for the metaphors they produced
MC-1	Test	5	7.1	“All the stress, the fear is in it. One day it will all be over if you trust what you can do. Same as a test” (F, A18) “Even if you regret your past mistakes after being diagnosed, you cannot change the outcome” (F, A21) “Being desperate” (M, A19) “It sucks one dry” (F, A19) “It’s like tests. If we study, we get good results. Same with cancer. If we comply with treatments, if we pay attention to our nutrition, the process would be healthier. It’s also like midterms, its effects are mild, but its later effects are more like the final exams, they affect more” (F, A22) “You don’t know what will happen in the end” (F, A20) “You don’t know who will win” (M, A19) “It leaves a bitter taste after it enters the body” (F, A20) “It is a disease that is difficult to treat, that increases every time with the continuous division of many cells, challenges people in many ways both in the treatment and disease stages, and contains uncertainties” (M, A24) “Gradually gnaws the human organs and the soul. It slowly finishes” (F, A20) “Makes people sad” (F, A19) “It can be born any time” (F, A22) “It can recur at any time. Therefore, one should never think that I will never get cancer again” (M, A22)
MC-2	Book	1	1.4	
MC-3	Fight	1	1.4	
MC-4	Hot pepper	1	1.4	
MC-5	Space in infinity	1	1.4	
MC-6	Mouse	1	1.4	
MC-7	Bad human	1	1.4	
MC-8	36-week old baby	1	1.4	
MC-9	Significant other who cheats and comes back	1	1.4	
MC-10	Sun	1	1.4	
MC-11	A broken car	1	1.4	
MC-12	Horror movie	1	1.4	
MC-13	Naughty kid	2	2.8	“You say stop, it doesn’t. It causes problems unexpectedly. It demotivates and demoralizes people. It requires struggle” (F, A25) “Cancer is like educating this child; a long, tiring task” (F, A20)

Table 2 (continued)

Metaphor code (MC)	Metaphors	n	%	Statements of the participants regarding the reasons for the metaphors they produced
MC-14	A kid flying a kite in the sky	1	1.4	"If he clings to his illness by holding the kite tightly, the kite will always be in his hand and he will be happy. But if he leaves the end of the rope, the kite will go to the sky into eternity. Disease will not go away, it will go to eternity, death" (F, A19)
MC-15	Climbing a mountain	1	1.4	"Although there are difficulties in it, it is possible to see and reach the summit" (M, A21)
MC-16	Siraat Bridge	1	1.4	"It is being between falling and not falling" (M, A20)
MC-17	Fight	6	8.5	"Even if it's to win, something is always lost" (F, A19) "Struggle to survive" (F, A20) "If you fight it, it will hold back and you will win. If you don't fight and give up, it will take over and you will lose" (M, A19) "Abnormally proliferating cells try to cover the entire body and constantly reproduce. Sometimes you win, sometimes you lose" (F, A22) "It damages the tissues and cells. It destroys the immune system" (F, A20) "You fight with all of your body" (F, A19)
MC-18	Bug	1	1.4	"It destroys everything good" (M, A19)
MC-19	Flea	1	1.4	"It proliferates once it spreads, it doesn't end" (F, A23)
MC-20	Mud	1	1.4	"Once it splashes on you, it's hard to clean" (F, A19)
MC-21	Trouble	2	2.8	"It continues if not treated" (F, A20) "It doesn't let go easily once it gets you" (M, A21)
MC-22	Ghost	1	1.4	"You don't understand it is coming" (M, A20)
MC-23	Snake	2	2.8	"Just when you say I got rid of it, it comes out elsewhere. Other problems arise when trying to treat an area" (F, A19) "Sneaks into our lives and pours poison" (F, A22)
MC-24	Poisoned food	1	1.4	"When you eat it, you vomit healthy food too." (F, A18)
MC-25	Thief	3	4.2	"It steals our lives, our youth, destroys all hopes and good years to live" (F, A20)

Table 2 (continued)

Metaphor code (MC)	Metaphors	n	%	Statements of the participants regarding the reasons for the metaphors they produced
MC-26	Love	4	5.7	<p>“The good days to live are taken away” (F, A20)</p> <p>“It consumes all happiness and energy” (F, A19)</p> <p>“Gives pain. It proceeds insidiously. It is difficult to treat. Cancer symptoms are similar to love; weight loss, hair loss, anorexia, weakness etc.” (M, A21)</p> <p>“It becomes more painful over time” (F, A20)</p> <p>“It eats you from the inside” (F, A19)</p> <p>“It spontaneously develops, spreads and surrounds your life without anyone knowing. It makes life a dungeon. It brings unhappiness and pain with it” (F, A21)</p>
MC-27	Vampire	1	1.4	“It slowly sucks your blood day by day. One day you see that your blood is drawn, you are at the end of your life” (F, A22)
MC-28	A social media influencer not having a data plan	1	1.4	“For the body to recover, exercise and nutrition must be balanced, but due to treatment it cannot do enough. Social media influencer cannot produce content because they do not have internet” (F, A19)
MC-29	Old bread	1	1.4	“It molds slowly” (F, A18)
MC-30	Unwanted friend	3	4.2	<p>“It’s hypocrite. Disrupts the friend group. Spreads like a virus. Takes time to recover broken relationships. It’s best to cut it out” (M, A20)</p> <p>“It devours like harmful people. Decreases self-esteem” (F, A19)</p> <p>“Takes the person anywhere” (F, A20)</p>
MC-31	Hell	2	2.8	<p>“One thinks that he’s going on an irreversible path.” (M, A21)</p> <p>“You experience a lot of pain” (F, A20)</p>
MC-32	Child	1	1.4	“It grows however you treat it. A good future or a bad future is in its hands” (F, A19)
MC-33	Gossip	2	2.8	<p>“The body it enters is not incurable. Disrupts the family” (M, A19)</p> <p>“Spreads more and more” (F, A20)</p>

Table 2 (continued)

Metaphor code (MC)	Metaphors	n	%	Statements of the participants regarding the reasons for the metaphors they produced
MC-34	Ignorant person	1	1.4	"It won't listen. Always goes one step further" (F, A19)
MC-35	Jail	1	1.4	"Greatly restricts people's freedom" (M, A22)
MC-36	Deep sea	1	1.4	"You either drown, or survive" (F, A19)
MC-37	A fading flower	1	1.4	"If you don't give your love, it dies" (F, A19)
MC-38	Depression	1	1.4	"Eats one alive" (F, A21)
MC-39	Duel	1	1.4	"People with cancer are in a constant race with this disease. They try to overcome this disease" (M, A20)
MC-40	House about to collapse	1	1.4	"It affects the person as well as the others around them" (F, A19)
MC-41	Sunflower seeds	1	1.4	"It's difficult to stop once it starts" (F, A20)
MC-42	Horror tunnel	1	1.4	"There are very few people who get in and out of it without fear" (F, A19)
MC-43	Night	1	1.4	"You don't know how it will end" (F, A18)
MC-44	Pumpkin	1	1.4	"Even if it starts small, it doesn't stop until the whole pumpkin has rotted." (F, A22)

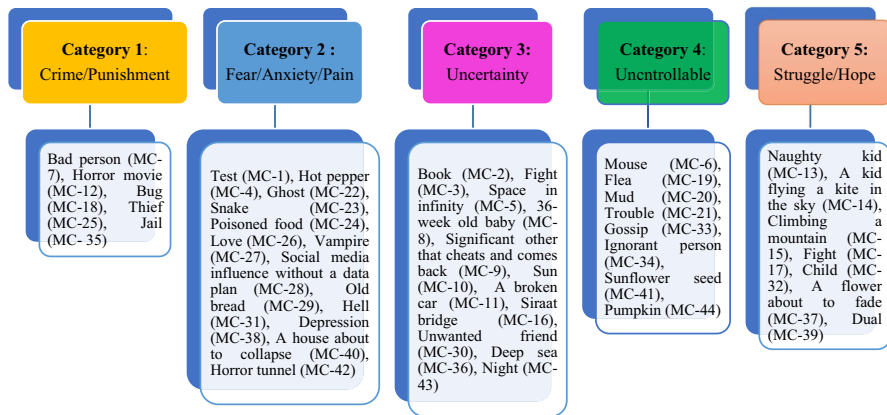


Fig. 1 Categories developed on the concept of cancer

to express this concept with a single metaphor as the metaphors identified for “cancer” were comprehensive.

Crime/Punishment

Since disease is a multidimensional phenomenon that is physiological, psychological, sociocultural, and spiritual, it creates a crisis of identity and existence in the individual. Therefore, people who encounter similar diseases show different reactions (Kocaman, 2011). Many people who are ill view the illness as punishment for what they have done in the past. Most of these patients do not participate in the fight against the disease because they think they deserve their illness. These people have a sense of guilt, feelings of humiliation, a loss of control, and a sense of helplessness (Kavradım & Özer, 2014). Perfectionist patients ask “Why me?” They get angry with everyone, get angry about the side effects of their treatments, and look at the people around them enviously because they are healthy (Gemalmaz & Avşar, 2015). Patients feel guilty due to lifestyle and role changes, economic difficulties, the need for increased care, and uncertainty and fear for the future, which can lead to anxiety and depression (Ülger et al., 2014).

In some cultures, talking about cancer is still taboo and may be uncomfortable for many. However, open discussions of cancer raise awareness and improve and ensure healthy well-being (Union for International Cancer Control, 2019). In addition, some studies show that a significant proportion of people feel uncomfortable in the presence of cancer patients and avoid interactions or tend not to work with them (Badihian et al., 2017; Greene & Banerjee, 2006; Park et al., 2008). Cho et al. (2013) conducted a study to evaluate the attitude of the public toward cancer in Korea. They found that 71.8% of respondents stated that cancer patients would not be able to contribute to society and 23.5% would avoid working with people with cancer. In the same study, the percentages of those who said they would not reveal a cancer diagnosis to their family, friends/neighbors, or colleagues were 30.2%,

47.0%, and 50.7%, respectively. Negative and discriminatory attitudes toward cancer and those affected by the disease have been found to be very common, despite clinical progress and recovered survivors.

Cancer metaphors are a topic generally rejected by patients and nurses (Lanceley & Clark, 2013). On the other hand, negative fatalistic perspectives are problematic for cancer management because those with more fatalistic views are less likely to participate in cancer screening or engage in cancer-preventive behaviors such as exercising, not smoking, and eating more than five servings of fruits and vegetables every day (Miles et al., 2011; Niederdeppe & Levy, 2007). Cancer fatalism is defined as “the belief that death is inevitable in the presence of cancer” (Powe, 1995). The metaphors that some of the students participating in our study used for the concept of cancer were “a bad person,” “horror movie,” “bug,” “thief,” and “prison.” This suggests that some of these students, who represent the professional nurses of the future, have negative attitudes toward cancer.

Fear/Anxiety/Pain

Despite advances in health care, cancer is still perceived by people as death, pain, or suffering (Badihian et al., 2017). The insidious onset and potentially devastating consequences of cancer have made it one of the most feared diseases of the twentieth century (Robb et al., 2014). As is known, having a positive or negative attitude toward a situation or phenomenon causes behaviors to be shaped in the same direction.

Attitudes toward cancer are also important in that they affect caring behaviors toward cancer patients. In a study conducted in Korea, more than 50% of the participants stated that cancer is impossible to cure or that it is very difficult for cancer patients to regain their health (Cho et al., 2013). In a different study conducted with first-year nursing students, the experiences of students with cancer patients in their first clinical practice were evaluated. It was determined that the students experienced anxiety, had difficulties communicating with the patients, and performed negatively regarding patient care and treatment (Yildiz & Akansel, 2011). In a qualitative study conducted by Kapucu & Bulut (2018) with 129 nursing students, 80.6% of the students defined working with cancer patients as “difficult.” The most common difficulties experienced by the students were identified as patients who refused nursing care, multiple problems experienced while providing care, communication problems, working with patients who feared death, and problems stemming from the patients’ families. Kav et al. (2013) stated in their study that some nursing students believed that cancer was more serious than other diseases and that they associated the diagnosis of cancer with a life-threatening situation. It has been shown in studies conducted in Turkey that cancer is believed to be a fatal disease (Çetingöz et al., 2002; Gültekin et al., 2011).

The most common fears of individuals related to cancer are the inability to cope with the side effects of the disease and treatment, the perception that treatment will not be effective and that the cancer will recur, and the fear of losing a loved one or dying. Clinical training for nursing students is important to develop optimistic

attitudes toward cancer. The training should include the selection of appropriate oncology clinics, guidance for students and role modeling provided by staff and teachers, continuous feedback, and support in communicating with and caring for cancer patients.

Uncertainty

As Mukherjee said, “cancer was scientifically no different from a black box” (Mukherjee, 2020). Being diagnosed with cancer, limited and jarring treatment options, losses, fear of relapse, and an uncertain life expectancy can cause patients to experience ambiguity and high levels of uncertainty. Uncertainty is an important component of the cancer experience and can dramatically affect the outcome of the patient’s disease state (Çınar et al., 2020). This is a multidimensional life experience in which uncertainty is experienced very intensely during and after the treatment process, which not only leaves traces in the psychosocial world of the individual but also creates meaningful changes in the patient’s life (Tuncay, 2009).

Cancer has a special place among physical diseases. While there may be significant positive or negative results in the treatment of acute diseases, the result is often less pronounced in the treatment of chronic diseases such as cancer. Cancer symbolizes the limitations of unknown danger, pain, guilt, shame, isolation, confusion, anxiety, and efforts to control death and life (Kavradım & Özer, 2014). The nursing students participating in the present study also developed various metaphors related to uncertainty (Fig. 1).

Uncontrollability

The main abnormality that causes cancer to develop is the continuous irregular proliferation of cancer cells. Instead of responding appropriately to signals that control normal cell behavior, cancer cells grow and divide uncontrollably, invade normal tissues and organs, and eventually spread throughout the body. The overall loss of growth control exhibited by cancer cells is the net result of accumulated abnormalities in multiple cell regulatory systems and is reflected in various aspects of cell behavior that differentiate cancer cells from their normal counterparts (Cooper, 2000). The fact that such a seemingly simple mechanism (unrestrained cell proliferation) is at the center of such a terrible and multifaceted disease is an indication of the incredible power of the cell proliferation process (Mukherjee, 2020). It is important to emphasize the difficulty of controlling both the disease process and the symptoms (pain, etc.).

Nursing students expressed metaphors that reflected this uncontrolled development process of cancer, comparing it to a mouse, flea, mud, trouble, gossip, ignorant person, seed, and pumpkin. The students provided these metaphors before receiving cancer education in the classroom. However, it can be said that they had a general idea about cancer, which is also common in society, with cancer being defined by expressions about its spread to other organs or rapid progression. Potts & Semino (2019) also reported that cancer has negative interpretations due to its nature, and when it is used

in metaphors, it is defined with reactions containing negative emotions that emphasize the danger, damage, otherness, deviation, and uncontrollability of cancer, similarly to our study. It is also useful to note that the “uncontrollability” category and the “uncertainty” category are intertwined with each other.

Struggle/Hope

It is known that the quality of life of individuals is negatively affected by the physical, psychological, and socioeconomic problems caused by cancer with the increase in its prevalence. In such cases, the hope levels of patients decrease and their effective coping skills are negatively affected. Hope is seen as an effective coping mechanism that enables the individual to feel safe, to relate to reality, to increase motivation, to avoid feelings of pessimism and helplessness in the event of illness, and to successfully comply with treatment. Since nurses are constantly at the patient’s side when a new diagnosis is made and during illness and treatment, they have responsibilities such as knowing what hope means for their patients, their levels of hope, the factors that affect hope, how to develop effective nursing interventions using this information, and ultimately how to help patients maintain hope by using strategies to reduce their feelings of hopelessness. Nurses have a privileged place in eliminating the uncertainties about the future for their patients and the problems experienced as a result of the disease and the treatment. They are well positioned for supporting hope, which is defined as a power that will increase compliance with treatment and ensure the continuity of treatment while effectively coping with problems (Kavradım & Özer, 2014).

“Fight” metaphors are particularly deeply rooted in the language of cancer today and cancer cannot be imagined without the words “fight cancer.” It should be kept in mind that negative metaphors can negatively affect how people think about cancer and that these thoughts can hinder people’s intentions to engage in healthy behaviors. However, it is a fact that survival rates have increased with rapid advances in cancer-related diagnosis and treatment. Although there are still negative attitudes toward cancer today and especially attitudes evoking death (Yılmaz et al., 2017; Chaplee et al., 2004), cancer is a disease for which it is possible to maintain life with treatment, continue daily activities at an optimum level, and be hopeful about the future, like other chronic diseases. Although cancer had associations such as “crime,” “punishment,” “fear,” and “suffering” among the students participating in this study, other students had more positive attitudes. Students’ abilities to produce different metaphors may be affected by many variables such as age, gender, cultural background, educational status, family history of cancer, and clinical experience. All these variables affect how we talk about cancer and how people manage their illnesses on a daily basis.

Study Limitations

There are some limitations to consider in this study. First, the study was carried out in a nursing department in Turkey. Findings from the study are specific to the nursing department in which the research was conducted. Therefore, the findings cannot

be generalized to students of all nursing departments. Second, this study was conducted with only 65 second-year nursing students.

Conclusion

It has been observed that nursing students mostly liken cancer to fights, tests, and love. It was further observed that the categories for which the students produced the most metaphors were “crime/punishment,” “fear/anxiety/pain,” “uncertainty,” “uncontrollability,” and “struggle/hope.” To improve nursing students’ optimistic attitudes toward cancer, it is recommended to provide more clinical education. This should include the selection of appropriate oncology clinics, guidance for students and role modeling by staff and teachers, the provision of continuous feedback, and support for students in communicating with and caring for cancer patients.

Acknowledgements We would like to thank the participants for their time and cooperation.

Authors’ Contribution KK collected and analyzed the data and results, carried out interpretation, and drafted the manuscript; CK designed the study, collected and analyzed the data and results, carried out interpretation, and drafted the manuscript; and KK drafted the manuscript, conceived and designed the study, and analyzed the data and results.

Funding The author(s) received no financial support for the research, authorship, and/or publication of this article.

Declarations

Conflict of interest The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Ethics committee approval was received for this study from the Scientific Research and Publication Ethics Committee of Kastamonu University.

Informed Consent Written informed consent was obtained from participants who participated in this study.

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