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Factors Affecting Self-perceived Stigma in Cancer Patients: A Meta-synthesis

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Abstract

Background: An analysis of cancer stigma and the factors affecting it can significantly affect patients' survival rate, willingness to receive treatment, coping strategies, and quality of life. To this end, the present study investigated the factors affecting self-perceived stigma in cancer patients.

Methods: The present study adopted a meta-synthesis approach. The inclusion criteria were qualitative studies, relevant keywords in the title and abstract, and full-text articles published in English from 2000 to 2022 in Web of Science, PubMed, and Google Scholar databases. After searching and screening the titles, abstracts, and methodologies, 419 articles were extracted. Then, the duplicate articles were removed and the data from the 11 remaining articles that met the inclusion criteria were used in data analysis.

Results: The findings revealed the factors affecting cancer stigma include substantive factors (cancer symptoms reflecting death and nothingness and the visible signs of cancer reminiscent of isolation and loneliness) and moderating factors (the role of false beliefs and misconceptions, fear of public judgment, and the role of the media as a promoter of stigma). The data also showed that false beliefs and misconceptions play the most important role in cancer stigma.

Conclusion: Taking into account factors affecting cancer stigma can contribute to developing an effective strategy to strengthen the psychological support for cancer patients and pave the way for improving optimal and effective management of the public health system in dealing with cancer.

Keywords: Stigma, Cancer, Self-perception, Qualitative research

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Introduction

Cancer is one of the global health challenges and the number of new cancer cases is expected to increase by almost 50% worldwide in the next two decades (1). According to the reports released worldwide, more than 19 million people were diagnosed with cancer and almost 10 million people died from cancer in 2020. Moreover, the total number of new cancer cases and deaths is expected to reach 28 million and 16 million people by 2040 (2,3). Despite recent advances in diagnosis and treatment, cancer is still considered a stigmatized disease in many societies (4,5). Health-related stigma is defined as the social process or personal experience of exclusion, rejection, blame, or devaluation that results from the experience or reasonable anticipation of unfavorable social judgment about an individual or group diagnosed with a particular health problem (6). The high prevalence of cancer stigma has been reported to vary from 26.1% among a sample of patients with different types of cancer in Iran (7) to 35.5% among lung cancer patients in the United States of America. Cancer stigma has negative consequences such as suffering from mental disorders, dissatisfaction with sexual life, reduction of social connections, delay or even interruption of seeking medical care, and stagnant jobs, which affect the treatment and recovery process of patients (8). Previous studies have shown that the fear of cancer stigmatization, the perception of the disease, and the shame and anxiety of getting cancer prevent many patients from engaging in cancer prevention, screening, and receiving health services (9). Cancer stigma

negatively affects the relationship between patients, doctors, and family members and leads to poorer health and psychosocial outcomes for cancer patients, as well as workplace discrimination and poor quality of life. Moreover, delay in referral and treatment is associated with cancer in more advanced stages, which creates a lower chance of survival (10). Thus, while stigma is a known barrier to early cancer diagnosis and treatment, minimizing stigma can be responsible for the delayed help-seeking behavior of patients (11). A systematic study has reported that in addition to side effects caused by cancer treatment, paying attention to cancer stigma and the factors affecting it during screening, diagnosis, treatment, and gradual recovery significantly affects the survival rate, willingness to receive treatment, coping strategies, and the quality of life of patients (12). However, cancer stigma makes patients see themselves in an ambiguous and confusing situation in which they look at the values and aspects of their lives in a different way (13). Thus, adopting a psychological perspective and a meta-synthesis approach, the present study aimed to explore cancer stigma and its contributing factors. It should be noted cancer stigma not only influences cancer patients and their treatment process but also can adversely affect the efforts of the public health system to reduce the burden of cancer in the community (5). As a result, the adoption of a comprehensive and systematic approach to cancer stigma is significant for effective policy-making and planning. Moreover, the findings of the present study can contribute to fulfilling the World Health Organization's goals of achieving universal health coverage (UHC), which calls for "a full continuum of key services from health promotion to prevention, protection, treatment, rehabilitation, and palliative care" (14). As such, this meta-synthesis study aimed to investigate the factors affecting self-perceived stigma in cancer patients.

Methods

This fundamental qualitative systematic review study adopted a meta-synthesis approach. Meta-synthesis is a method in which qualitative studies are combined, their differences and similarities are compared, and after evaluating the findings, it is possible to come up with a more comprehensive explanation and provide newer theories about the phenomenon in question. After determining the scope of the study (the research population, the topic, and the research design), the eligible articles were extracted through a systematic review based on the inclusion criteria in five steps. Afterward, the extracted articles were analyzed and the findings were synthesized. The articles were searched and extracted from PubMed, Web of Science, and Google Scholar databases using the keywords listed in Table 1. The extracted articles were entered into Endnote and duplicate articles were removed. Afterward, the methodologies, titles, and abstracts of the articles were reviewed and the eligible articles were identified. In the next step, the full texts of the remaining studies were extracted and carefully reviewed based on the inclusion criteria: qualitative studies, relevant keywords in the title and abstract, and full-text articles published in English from 2000 to 2022 in Web of Science, PubMed, and Google Scholar databases. Accordingly, the articles published before 2000, articles published in languages other than English, and quantitative studies and systematic reviews that were not in line with the research objectives were excluded from the review. A total of 419 records were found from all three databases (Google Scholar = 134, PubMed = 152, and Web of Science = 133). In addition, the methodologies, titles, and abstracts of the articles were reviewed based on the objectives of the study. After removing the duplicate articles, the data from 11 articles were qualitatively analyzed using the 32-item Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist (Figure 1). Furthermore, the data extracted from the articles including authors' names, year of publication, research objectives, research design, and type of cancer were reported based on the PRISMA guidelines.

Table 1. Keywords searched in databases

Keywords	Databases
((AB = (Stigma) AND AB = (Cancer)) AND (AB = (percept*) OR AB = (perceiv*)) AND (AB = (qualitative*) OR AB = (thematic analysis) OR AB = (Grounded theory) OR AB = (Content analysis) OR AB = (phenomen*))): 133	Web of Science
"Stigma"[Title/Abstract] AND "Cancer"[Title/Abstract] AND ("percept*"[Title/Abstract] OR "perceiv*"[Title/Abstract]) AND ("qualitative*"[Title/Abstract] OR "thematic analysis"[Title/Abstract] OR "Grounded theory"[Title/Abstract] OR "Content analysis"[Title/Abstract] OR "phenomen*"[Title/Abstract]) AND 2000/01/01:2022/12/31[Date - Publication]: 152	PubMed
"Cancer stigma"AND "qualitative OR "Grounded theory" OR "Content analysis"OR "phenomen*:"134	Google Scholar

Results

The data in this study were extracted from 11 articles. Data analysis revealed 22 categories and 88 subcategories as displayed in Table 2.

Table 3 shows the categories and subcategories extracted from the reviewed articles.

Substantive factors

Cancer symptoms reflecting death and nothingness

Advances in modern medical technology have prolonged the survival of cancer patients. However, patients who receive a cancer diagnosis inevitably think about death, loss, and demise. Such a feeling can turn into a deep existential crisis and affect the healing process of patients and their future. A participant in a study by Tang et al stated, "*A cancer diagnosis is a death sentence. There is a deadline for your life that you cannot control. So at that*

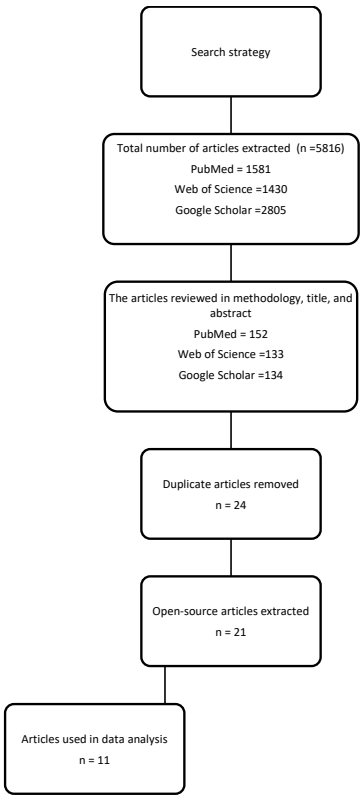

Figure 1. Article selection process

time you are bored to work or enjoy your life. I felt that my life was over" (19). Moreover, a participant in a study by Nyblade et al admitted, "*Life is over, there is nothing after cancer*" (18). Rosman reported that most patients believed that hair loss caused by chemotherapy is a symbol of the loss of vitality, physical strength, and health. In this study, one of the breast cancer patients stated, "*When my hair started falling out, I understood that I was very sick. That was when I realized that I have a fatal disease and that I am getting closer to death every moment*" (25).

Visible signs of cancer reminiscent of isolation and loneliness

A review of previous studies indicated cancer patients, especially women, are concerned that physical injuries and physical changes will limit their social life and affect their willingness to interact with the public. Many female patients reported that they felt lonely and vulnerable due to changes in physical appearance, which led to separation from others and being viewed differently in normal life. A participant in a study by Tang et alstated, "*After the diagnosis of cancer, my first reaction was that I felt that my appearance would change. How could I go to work? The threat caused by cancer is a change in appearance and I'll look ugly*" (19). Moreover, a participant in a study by Hasan Shiri et al said, "*Since the patient may have changes in appearance and lose weight, she may no longer look beautiful and people may not even look at her. Or everyone may think that she is an addict*" (15).

Knaul et al reported that several cancer patients hid their illness from their friends and expressed their concern about disclosing the illness and treating it differently. For example, one participant with prostate cancer was concerned that people would not allow him to enter public bathrooms after learning of his diagnosis. One of the patients said, "*My friends didn't even come to see me. I felt very lonely and sad, and the thought of being alone bothered me*" (16).

Moderating factors

Fear of public judgment

Fear and distress caused by the reaction of other people, especially family members, friends, and even healthcare workers, were among the key concepts reported in the majority of studies. Cancer patients, especially patients with lung cancer, cervical cancer, and breast cancer, were more frequently exposed to stigma. In Hamann and colleagues' study, one of the patients with lung cancer admitted, "*The first thing others ask: 'Do you smoke?' Well, I remember the first negative feedback I got was in the hospital. While I was being discharged after lung surgery, the doctor at my bedside whispered, 'Well, this is the price you get for smoking'. It is interesting that I have never touched a cigarette in my whole life*" (21).

One of the cancer patients in Rosman's study also said, "*When I was at home, I took off my wig very quickly. I didn't need to hide my baldness from my husband and children. But I remember one day when I opened the door to my uncle and he was shocked when he saw me without a wig. I quickly put my wig back on. I never let my grandchildren see my baldness. Never*". Another patient in the same study said, "*I wear my wig all the time, at home and outdoors. I just feel good if I have my wig on. I'm ashamed of my baldness and I don't want to look like someone who is sick not even for my children or my husband. So I wear it all the time*" (25). In a study by Nyblade et al, one of the patients admitted, "*I wasn't sure what the reaction of the family members would be. I'm afraid that my relatives would say bad things about me. For example, they would say that she will die soon and her family will collapse.*" Another patient also said, "*I don't talk about my illness, because I feel that others should not know that I have this problem... Why should I tell others in vain? They may look at me differently. I have a child. I have to be careful not to ruin her marriage and studies because she is the only girl. Her studies will be ruined and people around us may say that her mother has cancer and she may get the disease too*". In the same study, another participant stated, "*Cancer will bring a worse situation for women because they will no longer be able to fulfill their sexual role in the family as a wife. Women may also feel tired and unable to wash clothes or cook. They have to send the children to school. When all*

Table 2. The data extracted from the articles

Author(s)	Year	Focus	Research design	Type of cancer	Extracted themes and categories
Hasan Shiri et al (15)	2022	Cancer stigma, consequences, and effective factors	Qualitative content analysis	All cancers	**Cancer as a terrible disease** Fear of public judgment Fear of physical changes Fear of disruption in normal life Fear of death Fear of the disease and treatment risks Misconceptions about cancer Surrender to the fate **Identity crisis and mental breakdown** Loss of communication Hiding the disease Body dysmorphic disorder (BDD) **Disease complexities** The complex and unknown nature of the disease Unknown factors underlying the disease Relapse possibility Multiple and tiring treatments **Public unawareness and problems** Inadequate information about the disease The role of media in cancer stigma The role of emotional, economic, and social support
Knaul et al (16)	2020	The perception and experience of survival for Mexican cancer patients	A qualitative-inductive analysis	Cervical, breast, and prostate cancer	Unfavorable physical and sexual experiences Emotional problems and a sense of abandonment Cancer-related stigmas Challenges in acquiring health information Financial problems Losing control over the future and attitudes toward planning
Clements (17)	2017	Quality of life of patients with alopecia caused by cancer	Thematic content analysis	Ovarian and uterine cancer	Chemotherapy-induced alopecia Performing social roles Gendered visibility Mirror moment
Nyblade et al (18)	2017	Stigma in cancer patients in India	A qualitative-exploratory design	Breast and cervical cancer	**Stimuli** Contagiousness of cancer Cancer as a punishment Cancer equates death **Stigma demonstrations** Isolation Verbal insults Mistrust in the confidentiality of medical service providers Expression of extreme support **Consequences** Seeking treatment Death Poverty Diagnosis
Tang et al (19)	2016	The formation of stigma in women with cancer	Qualitative content analysis	All cancers	**Cancer means death** Feeling close to death **Cancer means a threat to social life.** Negative attitudes to cancer Experiencing physical changes in the body **Cancer means the perception of suffering** Sensitivity to the concept of death Counting the remaining days of life
Kaur (20)	2015	The interaction between cancer and stigma in India	Qualitative analysis	All cancers	Bodily changes and perceptions of bodily images Belief in the contagiousness of cancer
Hamann et al (21)	2014	Developing a cancer stigma model to reduce and manage expected outcomes	Qualitative content analysis	Lung cancer	**Perceived stigma** Negative judgments from friends, relatives, health caregivers, and community members **Internalized stigma** Self-blame Shame and guilt Anger Regret **Consequences** Distress and depression Reduced intimate relations Not attending public activities Avoidance **Moderators** History of smoking History of cancer Perception of cancer causes Controllability Social support

Table 2. Continued.

Author(s)	Year	Focus	Research design	Type of cancer	Extracted themes and categories
Lehto (22)	2014	Patients' perceptions of smoking, lung cancer, and stigma	A qualitative design	Lung cancer	**The role of smoking in developing cancer** Social attitudes Communication styles adopted by institutions Negative feelings and thoughts Real experiences of stigma Causative attribution
Zannini et al (23)	2012	Perceived effects of an aesthetic care programme for Italian women suffering from chemotherapy-induced alopecia	A qualitative design	Breast cancer	Reactions to cancer: anger, disbelief, and desire for challenge Chemotherapy and its inevitable effects Alopecia as a traumatic event that challenges women's femininity. An ambivalent and ambiguous feeling about cutting or shaving hair A positive perception of wigs to reduce disease symptoms Wearing a wig in public places Regrowth of hair as a sign of recovery
Chapple et al (24)	2004	Stigma, shame, and blame experienced by patients with lung cancer	A qualitative design	Lung cancer	The patient's experience and fear of stigmatization Resistance to stigma and blame Fear of inaccessibility of medical care
Rosman (25)	2004	The experience of patients with chemotherapy-induced alopecia	A qualitative design	Breast and lung cancer	**The patient's perception of alopecia** The seriousness of the disease Alopecia as a reasonable outcome of the treatment **Discrediting stigma: Strategies to cope with social interactions** Hiding the disease Coping

these things get worse, it puts pressure on the husband and may affect their marital life". In the same study, another group of women stated that their husbands were looking for another sexual partner because a woman with cancer would no longer be a suitable sexual partner, especially if she is involved in cervical or breast cancer. Thus, in such cases, most women believe that they should hide their disease during screening and diagnosis. One of the patients said, "*Although men are willing to go with their wives for testing, women often do not accept it because they are afraid that if they are sick, their husbands will leave them and go to another woman*" (18).

The role of the media as a promoter of stigma

Considering the role of social media, especially television shows, in raising public awareness, some studies have acknowledged that inducing a negative image of cancer in movies and promoting the deterioration of patients' condition are among the things that increase cancer stigma. A patient in Chapple and colleagues' study said, *"TV commercials about smoking cessation and lung cancer ended by saying that the patient they were showing had died. It upset me and scared me a lot, and this is very scary for someone who is suffering from lung cancer*" (24). Hasan Shiri et al reported that the unavailability of adequate information or the mismanagement of information in the media leads to the formation of negative attitudes towards the disease and the promotion of false beliefs about the disease: "*Television programs play a vital role in the public attitudes towards cancer, and so far the media, especially television, have not been able to play a successful role in reducing cancer stigma and have even fueled the stigma of this disease*" (15).

The role of false beliefs and misconceptions

One of the false beliefs in some societies as confirmed by studies is the belief that cancer is contagious. The fear that cancer can be transmitted through contact with the patient often leads to discussions about the physical isolation of people with cancer. One of the participants in Kaur's study admitted, "*Many people think that cancer is contagious, while some people know that cancer is not contagious, and it is wrong to isolate people with cancer*". In the same study, another participant said, "*It is still a common belief that 'others' are still afraid of getting cancer through daily interactions, that if they touch cancer patients, they will get the disease, and therefore people with cancer are treated badly*" (20). In a study by Nyblade et al, one of the patients stated, "*One of my friends told me that maybe I have gotten breast cancer because of the illicit sexual relations I had, and I felt terrible and I regretted that why I revealed my disease*" (18). Hasan Shiri et al also acknowledged that cancer has been one of the diseases that kill people very quickly since ancient times. When people want to describe a very terrible situation, they often say that they have an addiction, not cancer. Thus, some of these misconceptions come from the public culture that fuels the severity of cancer stigma (15). Previous studies have also shown that the concept of sexism which reflects any prejudice or discrimination based on a person's gender, is one of the concepts discussed by people with cancer.

In Rosman's study, a male patient with lung cancer admitted, "*Everything happens as if baldness is more socially acceptable for men than for women, and there is no feeling of being a victim of social judgment. I was bald but I never wore a wig. It didn't bother me to be bald and I never received unpleasant comments. Everyone accepted me as I was, as if I was not ugly*" (25). Zannini et al showed that even if cancer is predicted, alopecia is experienced as a traumatic event that challenges a woman's femininity. They found the use of wigs to be very useful because it hides

Table 3. Factors affecting self-perceived stigma in cancer patients

Substantive factors		**Moderating factors**		
Cancer symptoms reflecting death and nothingness	**Visible signs of cancer reminiscent of isolation and loneliness**	**The role of the media as a promoter of stigma**	**Fear of public judgment**	**The role of false beliefs and misconceptions**
Fear of death Fear of the risks of disease and treatment Unknown underlying causes of the disease The complex and unknown nature of the disease Fear of disruption in normal life The possibility of disease recurrence	Fear of physical changes	Promoting the deterioration of patients in movies Inducing the negative image of cancer in movies	Fear of public judgment Inadequate social and emotional support	Inadequate information about cancer Belief in the contagiousness of cancer Believing that cancer is the result of past bad deeds
	Emotional problems and feelings of abandonment			
	Mirror moment and encountering self-image after the disease			A gendered perspective of chemotherapy-induced alopecia
Cancer means death			Isolation due to fear of prejudice Extreme support expressed by people around	Belief in the incurability of cancer patients Belief in becoming helpless and succumbing to illness
Cancer as a sign of feeling close to death Awareness of the severity of the disease Counting the number of days left Sensitivity to the concept of death	Encountering physical changes in the body			
	Body changes and body image beliefs			Belief in the contagiousness of cancer
			Negative judgments from friends, relatives, health caregivers, and community members	
			Public social attitudes towards lung cancer and history of smoking	Contagiousness of the disease
Chemotherapy and its inevitable consequences			Wearing a wig in public places because of fear of people	Alopecia as a traumatic event that challenges women's femininity. An ambivalent and ambiguous feeling about cutting or shaving hair A positive perception of wigs to reduce disease symptoms
		Extreme demonstration of cancer's lethality in movies		
Physical symptoms and alopecia as the seriousness and fatality of the disease	Alopecia as a sense of distinction from others and self-separation		Hiding the disease as a coping strategy in social interactions	Acceptability of baldness for men in the community

baldness and reduces the "sickness aspect" associated with alopecia. In this study, one of the patients said, "*Basically, patients with cancer consider their wigs as their friends*". The authors concluded that beauty care programs can help women with alopecia cope with the "stigma" of cancer, especially in rural areas where psychosocial programs are often not welcomed by patients due to environmental and cultural barriers (23). Moreover, Clements stated that hair loss in women is stigmatized because American society often interprets a woman's bald head as a sign of cancer and a stigmatized condition. In other words, the special meaning associated with baldness is a gendered concept, which is why hair loss during chemotherapy is associated with an important issue of women's health (17).

In addition, the belief in helplessness, incapacity, despair, and passivity towards oneself in the face of the uncertainty of the cancer diagnosis and treatment process along with the fear of disease progress and recurrence is one of the things that most cancer patients may experience, and this leads to isolation, low self-esteem, and withdrawal from others, which also fuels the experience of being stigmatized, and because of that, patients try to hide their disease. In other words, helplessness and the perception of being a victim is not a kind of feeling, but a (mental) belief that the patient cannot do anything and cannot face the events. A participant in Nyblade and colleagues' study) stated, "*Patients feel helpless and they assume that they can no longer fulfill the expected*

roles in the family and society because they are too ill to continue working" (18). Besides, during the disease process, most patients have to undergo multiple medical treatments (surgery, chemotherapy, radiation therapy, etc) and cannot play their normal role in the network of interpersonal relationships, which is an inherent conflict. On the one hand, they tend to maintain their main roles as mothers, wives, and women as participants in social activities, and on the other hand, disease-related manifestations such as nausea, physical suffering, and fatigue caused by chemotherapy lead to their inability to do daily tasks. Accordingly, Clements acknowledged that ovarian and uterine cancer patients perceive their peers as using socially constructed standards of "good grooming" as a discursive frame to negotiate and make sense of one another's roles during social interactions. According to this perspective, they showed that the ability to play social roles such as the family roles of partner and mother/grandmother, which is considered important in the quality of life of patients, is affected by cancer, which is strongly associated with a decrease in their performance due to avoiding communication with others (17).

Discussion

The present study investigated the factors affecting self-perceived stigma in cancer patients through a qualitative analysis of previous studies in the literature. The findings revealed that factors affecting cancer stigma include substantive factors and moderating factors. The data also showed that false beliefs and misconceptions about cancer play the most important role in cancer stigma. The results also indicated that substantive factors were categorized into cancer symptoms reflecting death and nothingness and the visible signs of cancer reminiscent of isolation and loneliness, and moderating factors were classified into the role of false beliefs and misconceptions, fear of public judgment, and the role of the media as a promoter of stigma as confirmed in previous studies (15,18,19,25). Accordingly, Nyblade et al suggested the reason people are afraid of cancer is its aggressiveness and metastatic nature (the spread of cancer from one part of the body to other parts). In other words, most patients experience loss as soon as they find out they have cancer before receiving treatment (18). Thus, physical symptoms of cancer imply a fatal and serious disease that is associated with death and nothingness. According to Ucok, chemotherapy-induced alopecia can be described as "a body aversion" because it is directly related to physical appearance, which conveys to others the specific meaning of illness and the possibility of loss and death and appearance is in the body, which focuses on lived bodily experience. For example, a breast cancer survivor who has had her breast surgically removed may internalize the meaning and bodily sensation of being "uneven" in various situations, including (a) her body in her privacy, such as while showering or dressing, (b) another's body, such as hugging someone, (c) others' responses/reactions to her body (which can also be imagined responses of others), and (d) her experience and interpretation of others' responses/reactions to her body. However, it is also important to acknowledge that the distinction of individual and social experiences is potentially problematic, in the sense that our selves emerge from our relationships with others and their perceptions of our representations. Hence, since our body or self is constructed socially and through communication, it involves others even in their absence. As a result, the appearance representation for people has been integrated into the nature of the body (26). Thus, the changed appearance caused by the disease can be interpreted as a representation of the seriousness of the disease, fatality, the loss of the body, and the inevitability of death.

Previous studies have also confirmed that the physical symptoms of cancer are reminiscent of isolation and loneliness (19,15, 25). This is to argue that chemotherapy-induced alopecia can create a negative image of the body, decrease self-esteem, and reduce feeling good about oneself (27). Thus, in the process of experiencing a sense of shame when facing a chronic disease, the person's self-image fluctuates and this new stigmatized aspect of the person's identity is necessary to recreate a coherent feeling toward self-integration (28). Consequently, in the process of treating the disease and especially cancer, the "self" is reconstructed and restored when people find out how they can adjust their lives in sync with their disease. For example, individuals may relinquish their previous sense of control to create a new integrated identity that emphasizes how they can positively progress with their illness (29).

The findings from the present study also suggested that the factors moderating cancer stigma involve the role of false beliefs and misconceptions about cancer, the media as a promoter of stigma, and fear of public judgment. The data showed that false beliefs and misconceptions were the most common factors that could intensify the experience of cancer stigma several times. Previous studies have highlighted the stereotypes and superstitious beliefs related to cancer that the disease is contagious and attributing it to luck, karma, or doing bad things in the past (15,18,20). Hence, it seems social issues including public unawareness and the absence of evidence-based cancer information, inadequate information about the disease, the exchange of false information, and frequent questions asked by the patient's relatives and family or medical staff can be effective in cancer stigmatization experienced by patients. Moreover, the social context and place of residence are effective in the occurrence of stigma. For instance, Nyblade et al reported that rural women do not often talk freely about the problem of their internal organs as they are afraid of subsequent public reaction

(18). In addition, Hamann et al stated that patients in sparsely populated areas, especially in villages, are afraid of visiting a doctor and feel ashamed due to the stigma attached to cancer and its diagnostic and therapeutic consequences (21).

Furthermore, patients' belief in their passivity and helplessness can contribute to cancer-related stigmas. According to Hasan Shiri et al, one reason for cancer stigma is the ambiguous and complex nature of the disease (15) and it is thought that people with the personality trait of intolerance of ambiguity, helplessness, and worry face more distress and threats due to the unknown cause and treatment course of the disease (30).

In addition, gendered perspectives are among other common and false beliefs that lead to the development of stigma in cancer patients (17,25). Accordingly, since hair can be perceived as a characteristic element of a woman's femininity, alopecia and hair loss in the chemotherapy process have a greater psychological and cultural burden for women than for men (25). Moreover, the tendency towards aesthetics plays a role in creating cancer stigma. Although the belief and policies based on the culture of beauty and its promotion among the public, especially among women, have become common today, the effects of the beauty industry on strengthening having a beautiful appearance and controlling the body as a tool for saving, increasing social value and empowerment, commercialization of the body for profit, and considering the body as a product of the contemporary "consumer culture" can have irreparable complications for people, especially female patients (31). Accordingly, Natalie Bosleil suggests that the beauty-oriented study among the female community should be modified so that women's agency and their complex relationships with their ideal images can be modified in an adaptive way (32).

The findings from this study suggested fear of public judgment is one of the modulating factors in cancer stigma and its related outcomes as confirmed in previous studies (15,18,21,23,25). Accordingly, Mead et al suggested that the social self provides a framework for understanding meanings related to physical appearance through the responses of others. Mead argues that until a person is an object for himself, there is no "self" in the reflexive sense. The individual experiences herself not directly, but only indirectly, from the specific viewpoints of other members of the social group as a whole to which she belongs. Because as a self or person, she enters into experience with herself, not directly or immediately, nor by becoming her subject, but only in so far as she first becomes an object to herself, as other persons are objects to her or in her experience. Hence, she becomes an object for herself only by considering other people's attitudes toward herself in a social environment or context of experience and behavior in which both she and they are involved (33). In addition, physical changes and defects in appearance caused by cancer and its treatment may lead to a disruption in one's continuous relationship with the body, and as a result, the person's inability to experience the body/self as she used to, which leads to alienation from one's own body and, consequently, withdrawal, isolation and considering oneself to be different from others. Moreover, Tang et al believed that the fear of others' judgment is associated with a type of self-attack and self-blame in people with cancer, which affects the process of adapting to the disease (19). Another study also acknowledged that public judgment and attributing the cause of the disease to the individual's behavior are other reasons that force the patient to avoid communication with other members of the community (34).

The data in this study highlighted the role of media in promoting cancer stigma. Accordingly, producing TV programs focusing on new research findings about cancer and its treatment methods can persuade the general public to undergo annual screening and check-ups and contribute to reducing the burden of disease on the individual and the community. Furthermore, disseminating scientific and up-to-date knowledge about cancer and raising public awareness can change attitudes toward cancer and reduce cancer-related stigmas.

Conclusion

The findings from the meta-synthesis study showed that the factors affecting cancer stigma include substantive factors (cancer symptoms reflecting death and nothingness and the visible signs of cancer reminiscent of isolation and loneliness) and moderating factors (the role of false beliefs and misconceptions, fear of public judgment, and the role of the media as a promoter of stigma). Overall, it seems that providing information to patients about the effective mechanisms of cancer stigma and creating an environment where patients feel comfortable sharing their inner concerns can be a valid strategy to strengthen psychological support, of which most cases, especially women suffering from this disease, are deprived. Accordingly, the findings from this study can have some implications for expanding the perspectives of clinical experts and health policymakers in the field of cancer for optimal and effective management of the public health system in dealing with cancer patients.

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The authors declared that they have no conflict of interest.

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