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Metacognitions, Psychological Resilience and Fear of Recurrence in Cancer Process

Kanser Sürecinde Üstbilişler, Psikolojik Sağlamlık ve Nüks Korkusu

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Abstract

Cancer is a common life-threatening disease all over the world and can affect the people both physically and psychologically. Fear of recurrence is one of the most common psychological problems faced by individuals and their caregivers that is expressing the concern from diagnosis to the end of life that cancer may return or progress in cancer life even including the survivorship process. When the fear of recurrence reaches the clinical level, it can cause negative effects on individuals and their caregivers such as decreased quality of life, impaired functionality, and inadequate role performance. In this process, the concept of metacognition, which significantly increases the level of awareness of the individual, can have an effect on the individual's perceptions and interpretations as well as the possibility of being positively or negatively affected by the disease process. In addition, the concept of resilience, which is a protective and enhancing factor in mental health, can make less harm to the person from the process and increase their well-being. In this way, the individual can use coping strategies more effectively and manage the process better. In this paper, we aimed to explain the relationship between the concepts of metacognitions, resilience and fear of recurrence, and to evaluate their effects on the cancer process in order to ensure that the individual suffers minimal damage from the process and provide well-being.

Keywords: Cancer, fear of recurrence, metacognition, resilience, survivors

Öz

Kanser, tüm dünyada sıklıkla görülen, bireyi hem fiziksel hem de psikolojik olarak etkileyebilen yaşamı tehdit edici bir hastalıktır. Kanser tanısı konulmasından yaşamın sonuna kadar olan ve sağkalım sürecini de içeren kanser yaşantısında, kanserin geri dönebileceğine veya ilerleyebileceğine dair endişeyi ifade eden nüks korkusu, bireylerin ve bakım verenlerinin en sık karşı karşıya kaldığı psikolojik sorunlardan biridir. Nüks korkusu klinik düzeye ulaştığında, bireyler ve bakım verenler üzerinde yaşam kalitesinde azalma, işlevsellikte bozulma, rol performansında yetersizlik gibi olumsuz etkiler oluşturabilmektedir. Bu süreçte bireyin farkındalık düzeyini oldukça artıran üstbiliş kavramı, bireyin algılamaları ve yorumlamalarının yanı sıra hastalık sürecinden olumlu ya da olumsuz etkilenme olasılığını etkileyebilmektedir. Ayrıca ruh sağlığında koruyucu ve geliştirici bir faktör olan psikolojik sağlamlık kavramı da bu süreçte kişinin süreçten daha az zarar görmesini sağlayabilmekte ve iyi oluşluğunu artırabilmektedir. Bu sayede birey baş etme sistemlerini daha etkin kullanabilmekte ve süreci daha iyi yönetebilmektedir. Bu makalenin amacı, kanser sürecinde bireyin süreçten en az düzeyde zarar görmesini ve iyi oluşluğunu sağlamak üzere incelenmesi gereken üstbilişler, psikolojik sağlamlık ve nüks korkusu kavramlarının kanser süreci ile ilişkisinin açıklanması ve sürece etkilerinin değerlendirilmesidir.

Anahtar sözcükler: Kanser, nüks korkusu, üstbiliş, psikolojik sağlamlık, sağ kalanlar

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CANCER, which ranks first among the causes of death worldwide, affects millions of individuals every year and the rates continue to increase every year (Ferlay et al. 2019). Survival rates are increasing day by day (Ferlay et al. 2019) in parallel with the increase in new cancer cases with the medical and technological opportunities developed all over the world (Howlader et al. 2015, Smith et al. 2017, Noone et al. 2018). It is important that the individual can return to their pre-disease life and well-being as much as possible after the end of the active treatment process. Therefore, survivors who try to establish a life balance after the diagnosis of cancer are cancer patients in remission period (Shi et al. 2011). It is known that this process, which we call post-cancer survival, focuses on the health of individuals after cancer treatment, their daily life, and the time until the end of life. On the other hand, the physical, psychosocial, and economic problems caused by cancer continue in the survival process. These problems may include physical difficulties such as sleep problems, fatigue, weakness, nausea-vomiting, problems in sexual life, changes in the body; psychological difficulties such as anxiety, depression, despair, anger, attention problems, changes in roles, alienation, fear of recurrence (Kim et al. 2012, Simard et al. 2013). These difficulties can negatively affect individuals' coping skills, future plans, and their ability to adapt to their pre-disease lives (Simard et al. 2010). Studies (van den Beuken-van Everdingen et al. 2008, Allen et al. 2009, Simard et al. 2010) show that fear of recurrence, which is defined as the concern that cancer may return or progress in the same part of the body, seriously affects the perspectives and adaptation of individuals during the remission period and thus impairs their quality of life. Allen et al. (2009) showed that individuals faced emotional and physical difficulties during the remission period, van den Beuken-van Everdingen et al. (2008) showed that the greatest anxiety of these individuals was directed towards the recurrence of the disease, and Simard et al. (2010) showed that fear of recurrence was associated with repetitive, unhindered intrusive cognitions in their studies. Caregivers who closely witness all these processes and experience problems are considered part of this process (NCI 2020). It is seen in the literature that fear of recurrence is experienced at high rates not only by individuals who experience the cancer process but also by their caregivers (Mellon et al. 2006, Mellon et al. 2007, Kim et al. 2012). In the caregiving process, which is known to involve more than providing emotional, physical, or financial support and also have effects on the mental health of the caregiver (Northouse et al. 2012), an increase is observed in the anxiety level of both the individual experiencing the disease and the primary caregiver (Tan et al. 2020, Üzar-Özçetin and Dursun 2020). This increase in anxiety level may be accompanied by problems such as impaired functionality, reduced quality of life, and inadequacy in fulfilling roles (Mellon et al. 2007, Tan et al. 2020).

Various factors may play a role in the aforementioned effects of fear of recurrence on individuals and caregivers and in the perception of these effects by individuals. One of these factors is the concept of metacognition, which involves a dynamic process. Metacognition is defined as the capacity of the individual to become aware of themselves and others and to solve their emotional problems (Jansen et al. 2015). Increased awareness through the influence of metacognition has an important function in guiding the individual through a deeper mental process, adapting to the situation, and maintaining their functionality (Wells 2000). The likelihood of individuals being adversely affected may also increase when any problems occur in the metacognitive system (Wells and Cartwright-Hatton 2004, Allott et al. 2005). Metacognition may be effective in evaluating, interpreting, and coping with cancer life in chronic diseases such as cancer, where individual perceptions and interpretations are likely to affect the process. Studies with individuals experiencing the cancer process concluded that maladaptive metacognitions such as negative beliefs about thoughts and concerns ("*I should always check my thoughts*", "*my concerns are dangerous to me*") increase the fear of recurrence in this sense (Thewes et al. 2013, Butow et al. 2015). On the other hand, Jansen et al. (2015) concluded in their study that the increase in adaptive metacognitive activities of caregivers increased their positive caregiving experiences. Therefore, metacognitions have been shown to have the potential to affect caregivers as well as patients. Another factor that may affect the fear of recurrence in various ways is psychological resilience. Psychological resilience is defined as the potential to successfully maintain and recover mental health when faced with risk factors (Hjemdal et al. 2007, Davydov et al. 2010) and may increase personal well-being during the cancer experience by increasing the flexibility/adaptation capacity of the individual (Hudson et al. 2012, Uzar-Ozcetin and Hicdurmaz 2019). Thus, the individual feels able to overcome life problems and can cope more easily with the cancer process with the effect of psychological resilience (Friborg et al. 2003, Üzar-Özçetin and Hiçdurmaz 2017). Similarly, the individual can gain the ability to cope more effectively with fear of recurrence, which can be one of the negative benefits of (Üzar-Özçetin and Dursun 2020) the process such as anxiety (Hjemdal et al. 2014), depression (Hjemdal et al. 2007), decreased self-esteem (Haase et al. 2014), and burnout with the presence of psychological resilience (Walton 2017). Studies show that both individuals in remission period (Üzar-Özçetin and Hiçdurmaz 2019, Zuardin et al. 2019) and caregivers (Li et al. 2019, Uzar-Ozcetin and Dursun 2020) can cope better with the process when their psychological resilience is high in this sense.

There are many studies on the problems experienced by individuals during the cancer process in the literature. However, little is known about the concepts that drive individuals to fight, survive, and even grow when faced with cancer. Metacognitions and psychological resilience, as emphasized, have important effects on the ability of both survivors and caregivers to overcome the difficulties they face in the cancer process. Evaluation of the relationship of these three concepts with cancer life and their possible effects on the process may be important in planning interventions that can contribute to both better understanding of the process experienced by healthcare team members working with individuals experiencing cancer and empowering individuals and caregivers.

This study aims to explain the notions of fear of recurrence, metacognitions, and psychological resilience and to reveal their possible effects on the process.

Cancer experience and fear of recurrence

Post-cancer survival can have positive effects such as making life more meaningful and gaining value, however it can also include negative experiences such as side effects of medical treatments, physical limitations, and fear of recurrence whereas (Doyle 2008). One of the factors among these undesirable experiences that most affect individuals and their caregivers is the fear of recurrence (Savard and Ivers 2013, Lambert et al. 2013, Simard et al. 2013). One of the biggest factors in the emergence of fear of recurrence, which is defined as "*fear, anxiety about the possibility of recurrence or progression of cancer*", is the perception of cancer as a life-threatening disease (Mullens et al. 2004, Simard et al. 2010). Fear of recurrence mostly stems from common perceptions or beliefs about the disease and representation of the disease and occurs at different levels according to the mortality and stage of cancer (Simard et al. 2013). Individuals who are diagnosed with common cancer types and/or with high mortality rates experience fear of recurrence more intensely (Golden-Kreutz et al. 2005, Ries et al. 2006). However, this fear is known to be fairly common in almost all cancer patients, to persist at various levels, including during the remission period, and to have quality-of-life effects (Simard et al. 2010, Savard and Ivers 2013, Lambert et al. 2013, Simard et al. 2013, Janz et al. 2016). It continues long after the end (Champagne et al. 2018) of treatment and is thought to remain stable over time even though the severity of the fear of recurrence may change (Matthews 2003). Therefore, fear of recurrence can be triggered by the emergence of new symptoms (Krok-Schoen et al. 2018), ongoing side effects of treatment, annual controls (Simonelli et al. 2017), and treatment completion (Crist and Grunfeld 2013).

Fear of recurrence can be accepted as normal and functional to some extent as it causes self-protective reactions such as staying awake for potential recurrence symptoms and following medical regimens in individuals who have survived cancer (Lebel et al. 2016). However, fear of recurrence may also become a chronic concern that adversely affects individuals' moods (Crist and Grunfeld 2013), quality of life (Koch et al. 2013), and daily functioning (Tan et al. 2020). Therefore, it is seen that psychological distress is more intense when the fear of recurrence is moderate and high, and there is a greater decrease in functionality and quality of life whereas the fear is only accompanied by temporary anxiety symptoms at low levels (Simard et al. 2013, Thewes et al. 2013, Simard and Savard 2015). Intense fear of recurrence, also called fear of clinical recurrence, does not resolve spontaneously over time and may persist long after the completion of cancer treatment (Savard and Ivers 2013, Simard et al. 2013). Thoughts about the recurrence of cancer become continuous, and depending on the coping mechanisms of the person, different reactions may occur in the person according to the preparatory factors (such as cancer symptoms, stimuli from the environment) in these individuals who have a high level of fear of recurrence. All these cognitive activities have been reported to impair the quality of life when experienced intensively (Koch et al. 2014), increase perceived symptom loads (Simard et al. 2010), have negative effects on psychological adjustment, future thoughts, and overall well-being level (Thewes et al. 2012), lead to difficulties in interpersonal processes (Simard et al. 2013) and harm mental health (Lebel et al. 2016). However, fear of recurrence at the clinical level may change healthcare behaviors in the form of misinterpretation of physical symptoms, belief that symptoms represent recurrence (Liu et al. 2011), constant tense and alert behavior, constant seeking assurance from health personnel and other sources (Lebel et al. 2013) or avoiding all of these (Crist and Grunfeld 2013, Simard et al. 2013).

These psychosocial problems affect not only patients but also caregivers (Kim et al. 2012, Simard et al. 2013). In fact, there are studies in which the prevalence rates of fear of recurrence are higher in caregivers compared to patients (Maguire et al. 2017, van de Wal et al. 2017). Therefore, managing concerns about fear of recurrence is a widely reported unmet need for caregivers (Maguire et al. 2017). This leads to increased emotional stress (van de Wal et al. 2017), loneliness (Boehmer et al. 2016), and lower quality of life (Stein et al. 2008, Janz et al. 2016) in caregivers. Han et al. (2016) found that caregivers experienced guilt and intense anxiety due to the uncertainty of the disease during the cancer process. It was shown by van de Wal et al. (2017) that spouses who provide care during the cancer process have high levels of fear of recurrence. Similarly, Maguire et al. (2017) found in their study that the caregivers experienced the fear of recurrence and this fear increased the stress they experienced. On the other hand, variables associated with caregiver's fear of recurrence include younger age (Janz et al. 2016, Maguire et al. 2017, van de Wal 2017), cancer severity (Kim et al. 2012), type of treatment (Boehmer et al. 2016, Janz et al. 2016, Maguire et al. 2017, Wu et al. 2019), and time since diagnosis (Boehmer et al. 2016, Lin et al. 2016, Maguire et al. 2017). It is seen in these variables that individuals who are beginning to provide care at a young age (Janz et al. 2016, Maguire et al. 2017, van de Wal 2017) and who are providing care soon with advanced cancer (Kim et al. 2012) experience a more intense fear of recurrence. Similarly, factors such as high levels of stress in the family (Mellon et al. 2007), attributing negative meanings to cancer (death, suffering, pain, etc.), decreased quality of life and well-being of the survivor (Kim et al. 2012), and more time spent on care activities (Maguire et al. 2017) affect the caregiver's level of fear of recurrence. Kim et al. (2012) found that the negative effects of the cancer process were associated with the fear of recurrence of both patients and caregivers in this context. It was stated in another study that a high level of fear of recurrence reduces the mental and physical health of the caregiver (Lin et al. 2016). Fear of recurrence was found to be negatively associated with quality of life and positively associated with psychological distress in caregivers (Simard et al. 2013). However, caregivers are often afraid to express their own fears of recurrence, as they are often concerned that it may adversely affect the individual in the remission period, thus increasing their levels of fear even more (Soriano et al. 2018). However, it is known that caregivers who are prepared for the caregiving process increase the well-being of their relatives (Northouse et al. 2012). The literature shows based on all of these that fear of recurrence is a common experience between cancer patients and caregivers during the remission period and it can be permanent and common throughout the cancer process.

Metacognitions and cancer experience

The concept of metacognition is a high-level cognitive system that involves the individual being aware of the functions and events in their own mind and being able to control and purposefully direct them (Flavell 1979, Wells 2000, Tosun and Irak 2008). However, metacognition is also defined as the ability to recognize unique thinking, to make sense of one's emotional reactions, to see one's thoughts subjectively, and to understand that others' perspectives may be different from their own (Lysaker et al. 2005, Carcione et al. 2011, Lysaker et al. 2011). The Metacognitive Theory developed by Wells (2009) states that metacognitions are the basis of impairments in thoughts and emotions. Metacognition theory focuses on the individual's responses rather than what automated thoughts and beliefs they have (Wells and Matthews 1996). The determinant of the responses is the individual's metacognition. The metacognitive system is responsible for controlling human functional and non-functional cognitive processes and has an important role in its work towards adaptation (Wells and Matthews 1996, Wells and Cartwright-Hatton 2004). It can be said in this context that incompatible metacognitions are effective in the emergence of dysfunctional thinking and coping styles in the development and maintenance of psychological disorders (Cartwright-Hatton and Wells 1997).

It is thought that any problems that occur in metacognitions, which have an important place in the function and adaptation of cognitive processes, will increase the likelihood of individuals being (Wells and Cartwright-Hatton 2004, Allott et al. 2005) adversely affected and will be an important preparatory factor in the development and continuation of many psychopathologies (Wells and Cartwright-Hatton 2004). The individual has some positive or negative metacognitions when evaluating events, and these metacognitions shape the person's reaction and adaptation to the event (Wells and Cartwright-Hatton 2004). Metacognitions were found to be positively and significantly associated with both perceived stress and psychosocial problems (anxiety, depression, etc.) in one study (Spada et al. 2008). Therefore, metacognitions are activated as in all vital processes during the disease process, especially in diseases with high potential to affect the life of the individual such as cancer and it can affect the individual's disease perception, treatment processes, and adaptation (Thewes et al. 2012, Butow et al. 2015). Therefore, it is very important to focus on cognitive processes in chronic diseases such as cancer in terms of individual perceptions and interpretations affecting the process (Lee-Jones et al. 1997, Mullens et al. 2004, McGinty et al. 2012). It is seen in the results of the research that metacognitions affect the management of the cancer process of individuals in this sense and incompatible metacognitions were found to have a positive relationship with fear of recurrence at the same time (Thewes et al. 2012, Thewes et al. 2013, Butow et al. 2015). Likewise, Lee-Jones et al. (1997) stated in their study that beliefs about cancer, previous experiences about cancer, and knowledge about cancer may strongly affect cognitive dimensions. One way to understand psychological factors is to evaluate the underlying metacognition (Semerari et al. 2003, Dimaggio et al. 2007). Metacognitions may also affect the caregiving experience. Because it is thought in the caregiving process that more metacognitive capacity is intuitively required to understand

and adapt to the situation and anxiety experienced by the patient individual (Butow et al. 2015). It is known that the fact that caregivers have lower, in other words, maladaptive metacognitive capacity, complicates the process and leads to less sharing and less positive experiences between caregivers and patients. In addition, family members were more likely to manage their own distress and see things from a perspective that would allow both good and painful elements to be found with more adaptive metacognitive capacity (Lysaker et al. 2011). Adaptive metacognitive capacity was found to be associated with more positive experiences related to caregiving whereas more negative experiences related to caregiving were encountered in a study conducted in this sense (Jansen et al. 2015). Therefore, it is seen that cognitive processes may affect the meaning attributed to the process by cancer patients and caregivers, psychological adaptation, and effective management of the process.

These effects can continue even during the remission period, and negatively affect the responses to the disease by leading to maladaptive cognitions in situations that affect mental health such as the aforementioned fear of recurrence (Lysaker et al. 2011, Jansen et al. 2015). These maladaptive cognitions determine people's response to the disease. Thus, these maladaptive cognitions lead to the formation of maladaptive and dysfunctional thoughts and behaviors, thus supporting the emergence of fear of recurrence (Thewes et al. 2013). Addressing the fear of recurrence with metacognitions contributes to understanding the importance of focusing on cognitive processes, revealing more acceptable beliefs, and explaining the reasons for the continuation of increased emotional responses after cancer (Llewellyn et al. 2008, Baker et al. 2005, Butow et al. 2015, Erkan 2019). In addition, addressing the fear of recurrence within the framework of maladaptive cognitions and planning and implementing effective interventions for this purpose help to manage the uncontrollable fear of recurrence (Fardell et al. 2016).

Psychological resilience and cancer experience

All individuals face various challenges throughout their lives (Masten 2014). Psychological resilience is essential in coping with these difficulties and ensuring compliance (Wagnild and Collins 2009, Basım and Cetin 2011, Wu et al. 2013). The concept of psychological resilience, which has existed at various levels since the early stages of life and has the potential to be developed in the next life of the individual, is defined as the ability of the individual to overcome these negative factors and return to their former state when faced with challenging life stressors (Wagnild and Collins 2009, Wu et al. 2013). This concept is shaped according to the internal and external support sources (Hjemdal et al. 2007)and social skills of the individual and has the potential to be developed with the presence of protective factors against stressful risk factors (Oz and Yilmaz 2009, Basim and Cetin 2011).

The individual may become vulnerable to long-term negative psychological consequences such as emotional distress, depression, anxiety, sleep problems, fatigue, and impaired quality of life with the cancer process, which is an extremely stressful experience (Seiler and Jenewein 2019). Negative experiences such as inability to cope effectively with the difficulties experienced, inadequacy in solving the problems, and having chronic stress levels are considered to be related to low psychological resilience levels (Davydov et al. 2010). On the other hand, the ability to cope with problems without a decrease in functionality is explained by the high level of psychological resilience without experiencing minimal or no psychosocial impact (Luthar et al. 2000, Bonanno et al. 2004). Preliminary factors such as the individual being optimistic, hopeful, motivated (Min et al. 2013), and having a social support system (Ristevska-Dimitrovska et al. 2015) can strengthen psychological resilience. Each individual can react in the same way to negativities whereas some are more resilient than others in terms of psychological resilience in this context (Seiler and Jenewein 2019).

Some individuals can cope with the problems experienced with the presence of psychological resilience and evaluate the process more constructively despite the significant difficulties associated with the diagnosis and treatment of cancer (Danhauer et al. 2013). Thus, psychological resilience can be considered as an opportunity for mental and emotional well-being to overcome the cancer process and to improve coping (Danhauer et al. 2013, Uzar-Ozcetin and Hicdurmaz 2019). Therefore, the presence of psychological resilience is important in combating the difficulties experienced in this process (Haase et al. 2014, Hjemdal et al. 2014). Psychological resilience, which protects the individual's mental health from external factors during the cancer experience (Davydov et al. 2010), enables the individual to find meaning in their life and increases positive expectations and well-being (Ickovics et al. 2006). Studies in the literature indicate that coping methods of people with high psychological resilience are more effective (Connor et al. 2003, Haase et al. 2014). In addition, individuals with high psychological resilience experience lower psychological problems (Min et al. 2013), less anxiety (Cuhadar et al. 2016) and depression (Hu et al. 2018), and higher quality of life (Tian and Hong 2014, Matzka et al. 2016). On the contrary, lower levels of psychological resilience were found to be associated with impaired psychological functions and increased burnout among cancer patients (Strauss et al. 2007, Tian and Hong 2014).

The cancer process is a complex and long process involving the caregiver as well as the patient individual and affects the caregiver's relative psychosocially as well as the patient, as emphasized earlier (Erkan 2019, Uzar-Ozcetin and Dursun 2020). The presence of psychological resilience in the caregiver and the possibility of maintaining the balance between caregiver-environmental interaction and protective-risk factors are supported (Northouse et al. 2012, Lin et al. 2013). It is known that this balance enables better management of the process and facilitates the patient to overcome the process (Lin et al. 2013, Rosenberg et al. 2013, Rosenberg et al. 2014). Psychological resilience contributes positively to the process by reducing the effects of risk factors and minimizing negative reactions (Zauszniewski et al. 2010, Bekhet et al. 2012) in the caregiving process, which includes various stressors such as physical, psychological, emotional, social, and (Dumont et al. 2008) financial factors. High psychological resilience of the caregiver increases the quality of care (Gaugler et al. 2007) and effective communication (Northouse et al. 2012), reducing emotional stress and distress at the same time (Lin et al. 2013). It was stated as a result of a study that caregivers with high psychological resilience have stronger problem-solving, creativity, humor, communication, and social skills (Lin et al. 2013). However, helpless coping methods such as rumination, anxiety, perseverative thinking, threat tracking are activated and psychological problems may arise with low psychological resilience (Ocalan and Uzar-Ozcetin 2020), and the quality of life decreases while the burden of care increases (Uzar-Ozcetin and Dursun 2020). In addition, it is known that psychological resilience affects the meaning given to the individual's life and develops a positive perspective (Uzar-Ozcetin and Hicdurmaz 2020) and enables them to perceive their traumatic experiences in the cancer process as less threatening (Ristevska-Dimitrovska et al. 2015, Erkan 2019) and allows them to gain experience by growing after difficult life events (Üzar-Özçetin and Hiçdurmaz 2019). In addition, the process can be overcome with the least traumatic effect, thus increasing psychological resilience and personal growth can occur when the negative processes experienced in cancer are properly managed (Schmidt et al. 2012). Therefore, it is very important to determine the approaches to improving psychological resilience and to transfer them to practice.

Conclusion

Increasing the well-being of the individual during the cancer process, which is a challenging experience, facilitates the management of the cancer process and increases the quality of life of the individual. It is seen in light of the information mentioned in this review that fear of recurrence negatively affects not only the patient and the caregiver but also medical care. The early recognition of the fear of recurrence, which is one of the unmet needs of the survivor and caregiver after cancer, the positive development of metacognition and psychological resilience, which are among the concepts that may affect the development and severity of fear of recurrence, and the planning and implementation of interventions for the individual who can provide this will increase the well-being of the individual. It was in this study emphasized that caregivers in the background of the cancer process experienced similar problems with their relatives while the effects of this process on both individuals and caregivers were shown to be significant with literature data. Attention was drawn to the importance of understanding the feelings and behaviors of the individual during the cancer process, which deeply affects the life of the individual and the caregiver. It is mentioned in the literature that caregivers also report an intense fear of recurrence and that the fear of recurrence of survivors is affected by caregivers' fear of recurrence. This is thought that interventions to the caregiver indirectly will benefit the fear of recurrence of survivors, and vice versa, planned interventions to the fear of recurrence of survivors will also benefit caregivers. It can also be said that psychological resilience and adaptive metacognitions may be useful in reducing and controlling fear of recurrence in both sick individuals and caregivers. Evaluating the possible effects of these concepts on the processes of individuals experiencing cancer and creating effective intervention plans in this direction may increase the quality of the support that can be given to individuals and caregivers. In this sense, the adoption of cognitive therapy approaches that focus on adaptive cognitions and include methods such as replacing maladaptive cognitions with more adaptive ones, controlling ruminative thoughts, and becoming purposeful may be effective in order for both individuals experiencing the cancer process and caregivers to exit the process stronger and maximize their mental health. Similarly, anxiety levels of individuals can be reduced through approaches such as metacognitive therapy, mindfulness-based approaches, schema therapy, and supportive therapy. It is recommended in this context to investigate the effectiveness of these approaches in future studies.

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