Chapter 5

Psycho-Oncological Aspects of the Functioning of Women Undergoing Radical Treatment Because of Breast Cancer

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Breast cancer is a serious oncological problem. It is the second most common malignant tumor in the world. According to the data for 2012 that has been published by the World Health Organization (WHO) 1.67 million new cases of breast cancer (25.2% of all cancers among women) were diagnosed and 522,000 cases of deaths were recorded. Incidence ratios are in the range of 27/100 thousands in the Central Africa and East Asia to 96/100 thousands in the Western Europe [1].

The incidence of breast cancer continues to increase however, the declining mortality rates in developed countries indicate an intensive development of detection and treatment methods that hope for longer and better lives of patients

Suspicion of Cancer - Stress and Coping Strategies

There are many socio-demographic factors influencing the detection of breast cancer. Age is important. It has been shown that patients under the age of 49 carry regular breast self-examinations out, so they are more likely to detect changes compared to older women. The level of knowledge about the disease is also falling with age. Younger women are more likely to get information about breast cancers from the internet, while older people usually gain knowledge about the disease from family members and friends. Most patients aged 31 to 69 years report

to the doctor immediately after the lesion is detected, but not all women over 69 years of age. Urban dwellers detect changes by breast self-examination far more often than in rural areas, while percentage of change detected by mammography is similar regardless of where they live [2].

Cancer is perceived as the most stressful of all diseases. It triggers negative emotional reactions, especially anxiety and is perceived as a traumatic situation. Stress is already present at the time of the suspected illness by woman and results from the discovery of the first symptoms that need not to be unequivocal. At the moment of first symptoms, there is a feeling of danger and stress, which contributes to choose of the coping strategies. This strategy fluctuates between acceptance and raising anxiety and reduction of unpleasant emotions by denial. Severe stress is released during waiting time for diagnostic results. Negative results in relief and discharge of emotional tension, while positive poses woman in the face of lethal [3].

Three stress management styles have been identified. The first is a task-style that is a readiness to make the effort in a difficult situation to solve problems by trying to change the situation. Emotional style distinguishes people who tend to focus on themselves and their inner emotional experiences during stressful situations. The third style called escape style is characterized by those who tend to reject thinking about the problem and experiencing stress

by engaging in substitute activities or seeking social contacts [4].

Confirmation of the Worst Fear – Diagnosis

Message about the appearance of the disease posing a threat to health and life causes a tremendous emotional burden and brings to mind an extremely powerful and negative feelings. Natural responses to information about the onset of disease are: anger, fear, terror, depression, guilt, shame, apathy, grief and despair. Some patients suffer from depression, fear or panic attacks. Despite constant internal struggle these feelings are sustained and recurrent due to the long process of treatment, its nuisance and all unpleasant aspects. Beyond suffering, disease is a sign of disturbing changes in the body as well as adverse changes in life. This involves staying in hospital, participating in new often unpleasant diagnostic procedures, side effects of pharmacological treatment.

Cancer puts a person in a tragic space which is a deadly threat. The sick person is temporarily unable to perform his or her social roles and it can last for many days or weeks. As a consequence most patients adapt to the new situation and accept it. Cancer for some people means alienation and humiliation. Fear of cancer is not only confined to people with this diagnosis but also to

healthy ones. Cancer is a civilization disease, so it is present among the people living in our civilization. Despite significant advances in therapy it still means facing the pain and the oncoming death for many people [3].

A patient hearing the diagnosis of "breast cancer" thinks about the causes of the disease and the meaning of life. Taking on treatment involves many problems, stress, fear of death and fear for your fate, as well as the fate of family and friends. Sick women, especially young ones, do not want to be a burden to their family. Treatment and its consequences bring a negative image for patients causing a rise in the level of perceived anxiety. Changes in the physical, social and psychological sphere and deterioration in quality of life are the effects of oncological therapy [5].

In response to confirmation of development of cancer the body launches specific mechanisms for coping with cancer. These processes are extremely important for the sick person and her family. They reflect the methods and actions taken to compensate for the stress resulting from treatment and prognosis. There are distinct phases of emotional reactions that make up the stages of cancer survival [6].

- Denial - disbelief; At this time there are ill-judged decisions, sleeplessness, lack of appetite, subtraction with accompanying delusions, excessive sensitivity, and sometimes even suicide attempts.

- Time of anger and rebellion - when painful truth about the disease is released into the consciousness the anger appeared, it is the end of the phase of denying of reality; Besides anger, there is also rage, jealousy, rebellion, resentment; The question "why me?" brings to mind. The disease that is the main enemy is out of reach, patient transfers anger on the environment due to her difficult situation; The patient sending such signals wishes to give her more attention.
- Bargaining with fate - this is an attempt to postpone death, a woman "has a deal" with a God or fate; This period is characterized by the promise of being better in return for health restoration.
- Depression - is related to the end of any doubt about the disease, the woman knows that she has to undergo surgery, another chemotherapy, at this time, additional symptoms appear, such as exhaustion, pain, depression start to dominate, which contributes to enormous suffering and hopelessness.
- Acceptance - may be full or partial; Patient settle with his situation, accept her situation, calm down, no longer have the strength to fight for life; This stage can be completely devoid of emotions and feelings.

Adaptation to the threat that cancer represents is a way of coping with the situation. The goal is to get the greatest possible control over the disease to preserve self-esteem. The onset of cancer puts a woman at risk often accompanied by uncertainty about the course of the disease and prognosis. The current level of knowledge about the causes of cancer, as well as the socio-cultural perception of the disease influence surviving of this period. Its survival encompasses the mental, social and spiritual spheres. Diagnosing a malignant tumor and its treatment takes away confidence in one's own body and a sense of integrity. Patients lose strength, fancy and motivation to fight the disease and its consequences. This is due, among other things, to the lack of ability to meet all needs, as well as from the large amount of free time often spending alone.

Cancer usually significantly changes the existing hierarchy of needs. The nature of these changes depends on the patient's age and the stage of the disease. In the early stages, the possibility of losing health often manifests itself in the increased need for safety, if which is not satisfy in the time of waiting for diagnosis, causes severe anxiety. It is a dominant feeling in the everyday functioning of patients with breast cancer and is a typical response to the disease. It accompanies patients from the time they are diagnosed throughout the course of treatment as well as after treatment (fear of recurrence of cancer). The underlying cause of anxiety is a disease that is a threat to health and life and

there is also fear of pain and fear for the fate of the family. Anxiety is an emotional reaction to the thought of a disease or the idea of threatening the possibility of losing some important human value. Provides a warning signal of danger and encourages pro-health and pro-life actions. Do not fight it [7].

Fears are felt not only by patients but also by health care staff. Fears of patients are divided into fears about disease and treatment outcomes, and procedural anxiety resulting from concerns about clinical treatment techniques. Frequently fear of results is not possible to eliminate. Cancer is a major health and life threat. Procedural fears, in turn, are usually the result of poor clinical care resulting from misconceptions or concerns about upcoming events [8].

A serious problem begins when anxiety fills a person with more than 50% of non-sleep time. The patient is not able to take over its control with her own strength and she is unable to control this condition. The behavior is distinct from the pattern typical for patient, and is accompanied by sleep disorders (nightmares, sleep problems), and sometimes even vegetative disorders. The syndrome of these symptoms is characteristic for so-called chronic anxiety (GAD-General Anxiety Disorder). There is panic disorder characterized by sudden, very strong, but short-lived attacks among anxiety syndromes. This is an anxiety condition accompanied by marked vegetative symptoms

(rapid pulse and respiration, pressure stroke, chest tightening) [7].

Feeling of fear involves three areas: mental, vegetative-somatic and behavioral. Strong anxiety can be accompanied by memory disorders, concentration, thinking, and also perceptual disorders. Emotional anxiety under control increases psychic resistance and can even cause an increase in human personality [9].

Fear accompanying anxiety and fear of death are reasons for delaying treatment. In the past, according to some, the average latency was 12 months [10]. The lack of knowledge about the disease associated with the low level of education is the most important reason for this. It happens that patients try unconventional treatments and hope for spiritual healing. [11]

For decision to undertake specialist treatment factors such as age, fear of mastectomy, marital status, faith in prayer, the nature of the ailment, and economic causes have a decisive importance. Young women more often decide to start early believing that they are strong, young and ready to overcome the disease. The elderly, often lonely, have different values. Often, low education and lack of reliable information about breast cancer make them believe in spontaneous recovery or the help of unconventional medicine. Sometimes patients with breast cancer use medicinal herbs, try to treat with currents, diets or massage. Women who have benign breast problems present higher awareness and less fear of treatment, which results in seeking help earlier.

Unmarried women continue to delay to report to the doctor and decide to receive treatment later. Women with higher education level have more knowledge about breast cancer which contributes to the easier acceptance of the breast after subtraction [12]. It has been found that the use of unconventional medicine in breast cancer patients is becoming more and more common. Most of the women in the Amazon Club do not use unconventional therapy but one in four used unconventional methods after the oncological treatment. Amazons most often use herbal medicine, chiropractic treatment, massage and Chinese medicine. Most women are convinced that the use of unconventional treatment should be consulted with a physician [13].

Other data show that nearly half of patients with breast cancer use complementary procedures. Most often, they are professionally active city dwellers. Women usually obtain information on this subject from the media and from the family. Complementary methods are primarily used in case of mood disorders and for the relief of pain. Patients suffering from depression, anxiety and mood disorders usually use massage or physical exercises. About half of women report that they use of complementary procedures to their doctors [14].

Concerns and Emotions in the Perioperative Period

Preparation for radical breast surgery involves entering the role of a sick person and therefore subordinate to the health care system. This is related to staying in the hospital, side effects of both invasive and pharmacological treatment. These factors cause a sense of dependence on others, from medical care staff to family members. Physical activity in the early postoperative period is associated with reduced activity of women which contributes to significant dependence on others. However, research shows that this dependence is visible only in the early post-operative period and after intensive and effective physical and psychological rehabilitation performed in the hospital. Women treated for breast cancer quickly become self-reliant and independent [15].

After breast removal, there may be problems with helplessness, decreased sense of femininity, lack of sense of control over health and further life. Changing appearance often gives women a sense of shame. Mastectomy has a significant impact on the social, mental and sexual life of women. The biggest constraints to social functioning are reduced physical capacity, reduced productivity and daily activities, and the lack of opportunities to return to work.

The surgery and the scar resulting therefrom negatively affect the attractiveness and sexuality of woman.

After breast amputation there is concern about the effectiveness of treatment, the occurrence of physical limitations, serious personal, family or professional problems. The predominant feeling in women after mastectomy is fear of disability, death, and concerns about further family life. It is also possible that the emotional response to aggressive treatment is accompanied by depressive disorders and even suicidal thoughts. Depression is the most common mental disorder in the face of cancer [16].

The emotional functioning of patients after breast cancer surgery is particularly affected by irreversible disability and body distortion. Women usually have average overall health and good physical and social functioning. They also report average emotional functioning and good cognitive function after mastectomy, as well as conservative surgery up to three months after surgical intervention [17]. In contrast, a significant proportion of women after adjuvant chemotherapy, radiation therapy or hormone therapy suffer from fear, confusion, depressive mood or depression, and experiences sadness and hostility towards their friends and family [18].

In other studies, patients treated for breast cancer reported a significantly lower quality of life with regard to physical activity and social function at least 30 days after the surgery [19]. Amputation of the breast can reduce the intensity of anxiety and depression. The lower level of depression and anxiety is characterized by women with

higher education both before and after surgery. The most intensified feelings of depression and anxiety are manifested by women of medium social status, professionally active regardless of the operating period. In contrast, the age of the subjects did not significantly influence depression and pre- and postoperative anxiety [20].

One cohort study evaluated the effects of depressive disorders on the risk of cancer recurrence. In the depressed and non-depressed groups, the incidence of tumor recurrence was compared. It turned out that in the group of patients with depressive disorders there was a higher incidence of tumor recurrence compared to the non-depressive group [21]. This demonstrates the significant impact of a woman's mental state on treatment, and especially on the risk of recurrence of breast cancer.

Body appearance is an important factor in our perception of ourselves and how we are judged by other people. Beauty plays an important role especially for the female. At present, not only in the media, the strong pressure to be young and attractive, which also means capable of success, exerts a tremendous impact on the mental functioning of young women and their self-esteem. Losing a breast changes the appearance of the body affects its harmony and feeling of beauty.

In our culture, the breast is an attribute of femininity and motherhood. The loss of breast for some ladies is especially painful, causing stress and an overwhelming sense of shame towards partners, the environment, and

the family. It can even contribute to the psychic breakdown and the fear of disintegration of the marriage or its disturbance. Women feel like 'sub-standard' woman, accompanied by the "half woman complex". Often, their self-esteem decreases and physical fitness is reduced. Even supplementing with breast prostheses does not restore certain women's self-confidence and causes constant observation of their appearance and a great sense of hygiene on this issue. They feel constrained in social situations and fear that this is noticeable to everyone [16,22].

Psychophysical Functioning During Complementary Treatment

The two most common methods of systemic treatment for breast cancer include chemotherapy and hormonal therapy and recently targeted therapy. Chemotherapy is a form of systemic treatment that affects the entire body. It can be used as preoperative or complementary local therapy. Hormonal therapy is a particularly debilitating method for young and middle-aged women, usually associated with a pharmacological castration. In addition to the somatic symptoms of menopause or masculinization, emotional disorders such as depression, self-loathing, feelings of reduced sexual attractiveness, and malnutrition are also very common. These symptoms are often accompanied by fatigue, sleep disturbances and emotional liability [23].

Chemotherapy is aggressive treatment and the side effects and intensity are determined by the type of medica-

tion used, as well as the individual sensitivity. The most common complications of chemotherapy are hematological, gastrointestinal, dermatological and sexual dysfunction. These physical effects are well known and as a result often cause negative emotional reactions such as anxiety, reluctance, depression or anger at the beginning [7].

.In addition to these specific emotional reactions, specific neuropsychiatric symptoms may arise as a result of the neurotoxicity of the drugs used. Certain chemotherapy cycles can cause cognitive, psychomotor, emotional, libido, and even impaired consciousness. It was found that cognitive performance during chemotherapy is affected in some extent by initial level of education. Cognitive disorders are more common in less educated people [24].

During adjuvant treatment, the loss of hair after chemotherapy triggers an additional negative emotion. Patients need understanding and support from both the family and the medical staff. There are also side effects such as vomiting, nausea, anemia, neutropenia, menstrual disorders and earlier menopause. Some studies have been conducted to evaluate the association between cancer treatment with cytostatics and the incidence of cognitive disorders in patients with breast cancer. The studies also considered anxiety levels before treatment. Prospective cohort studies were performed in patients with newly diagnosed breast cancer without accompanying cognitive impairment.

MoCa scales (Montreal Cognitive Assessment) and

the Hospital Scale of Anxiety and Depression were used to evaluate patients functioning. Neuropsychological functioning of the patients was studied prior to initiation of treatment and one year after the diagnosis of the tumor. Nearly one out of ten patient presented an incident of cognitive dysfunction during complementary treatment. There was a statistically significant relationship between anxiety and chemotherapy effects, and incidence of cognitive disorders. There was a statistically significant increase in the risk of cognitive dysfunction among non-anxiety women [25].

Symptoms following radiotherapy often cause negative emotional states that require specialist help. Before the start of radiotherapy, and also at the beginning of radiotherapy patients feel fear of “mysterious” form of treatment. Patients often come up with ideas about the harmful effects of radiation. Also sometimes the ideas of advanced cancer or the possibility of overdose of radiation and burns, for example following damage to the device are dominant ideas. In the course of further irradiation, there is usually sedation combined with general fatigue.

Often taken with relief, the end of treatment is interlaced with periods of anxiety and depression, caused by the statement that there is no longer a therapeutic barrier and therefore the disease may begin to develop again. Psychological support should be implemented at the time of referral for complementary therapy and its main task should be to inform the patient about the reasons for the

referral to that form of therapy, the intentions and goals of the treatment, and its overall plan [7].

One of the negative symptoms of oncological treatment is chronic fatigue that is observed in a large number of patients. It is the most annoying and most commonly reported side effect, and most of the oncological treated patients experience it. In order to reduce the negative effects of fatigue, it is necessary to start with the fight against its reversible causes. Women who are suffering from cancer fatigue syndrome describe them as weakness, total lack of energy, fatigue, "doldrums", exhaustion, reluctance to perform daily activities, inability to concentrate and attention, chronic sleepiness or insomnia. These ailments are causing daily dysfunction, helplessness, cognitive dysfunction, loosening of interpersonal bonds and loneliness [26].

Results of a study to assess the severity of fatigue and physical exercise among patients treated for breast cancer revealed a statistically significant and clinically significant effect of physical activity on fatigue reduction. Applying a properly tailored home exercise program can effectively reduce the severity of fatigue associated with oncological treatment [27].

The holistic approach to the patient is important during accompanying therapy of breast cancer. One of the forms that support treatment is art therapy, especially

dance and music therapy affecting the human body by changing neurophysiological parameters such as pulse rate, respiratory frequency and muscle tone. Musical therapy affects various aspects of life, helps to overcome and also express negative feelings and accept altered body. Probably, active music therapy helps patients, particularly in the social field. One of the main results of active dance music therapy is relaxation, so essential in stress-filled life. Music can also be used as a motivating factor for exercise. Dancing in circles with other people stimulates the senses and enables social contacts.

The effects of treatment also affect sexual life. The biggest problem is acceptance of the changed appearance by yourself, rarely the partner also does not accept changes after breast removal. The process of recovering the psychosexual balance is influenced by factors such as support from the loved one, having children and the economic situation. A woman is trying to participate in life and perform normally [28].

Breast Reconstruction

In spite of the increasingly widespread of using of conservative treatment modification of Patey's amputation is still widely used as a basic surgery for breast cancer. Very difficult oncological treatment, which can be accompanied by many complications, contributes to lowering the quality of life, mutilating the body and the psyche of women. Mastectomy patients have problems with self-acceptance, and feel 'defective'.

There is a need for reconstruction of the breast, which can be performed in simultaneous or deferred mode. The aim of surgical breast reconstruction is to improve the quality of life and satisfaction. This procedure should produce the best possible aesthetic and functional results. The main indication for surgical breast reconstruction is the strong motivation of a patient unable to reconcile with a disability.

Reconstruction is a standard, commonly used procedure after breast amputation in many medical centers. However, after the surgical reconstruction of the breasts, there may be various complications affecting the patient's further satisfaction, such as: skin necrosis, adipose tissue or need for next surgery due to complications. The risk of complications depends on the method of breast reconstruction used and it is therefore important to carefully consider the individual factors for planning of reconstructive procedure [29].

In general, few women choose to perform breast reconstruction surgery. Some patients after the mastectomy are overwhelmed by the anxiety associated with the dominant thought of 'saving lives.' These women make a potential decision about reconstruction only when they believe in successful prognosis. This applies in particular to young, attractive women. Some women who from the beginning very strong thoughts about mutilation, so they make a decision about breast reconstruction almost immediately after amputation and express their desire to reconstruct. However, over time, waiting for the reconstructive procedure they adapt to the new situation and accept it, and consequently revoke the original decision. This usually applies to older and/or lone women. Most patients initially do not think about breast reconstruction. In addition to financial considerations and the fear of another procedure, it is important to be aware that a reconstructed breast covering the scar may make it difficult to diagnose a possible cancer recurrence in the scar [7].

Breast reconstruction is usually performed by middle-aged women, usually between the ages of 41 and 60. Most of them live in the city, are married, professionally active, and determine their financial resources as sufficient. Apart from a one-time reconstruction, the average period from breast amputation to reconstruction lasted 4.8 years. The most frequently mobilized factors for reconstructive surgery, in addition to the lack of self-acceptance, husband acceptance and the environment as well as a sense of loss of femininity, are: young age, body deformity, disability and impairedness. In the post-operative period the attractiveness of most women increases compared to the preoperative period [30].

The development of reconstructive surgery techniques, as well as the growing understanding of the psychological effects of breast amputation, make these procedure a permanent part of a comprehensive modern breast cancer treatment.

Road to Disease Acceptance

The ability to find positive experiences and the acceptance of a changed body are the foundation for effective coping with disease in the later period. The first step in accepting oneself is to change behavior and attitude towards positive thinking and overcoming fear of illness. Some women may be helpful to talk to a psychologist who can use appropriate therapeutic methods.

There are 3 types of cognitive activity in the adaptive process. The first is to seek answers about the sources and consequences of the disease. Another one is mental activity aimed at adapting to the disease is an attempt to find the factors that will influence the course. The last cognitive process taking place in the process of adaptation is to analyze the information about oneself and the surrounding world so that they reinforce self-esteem. The ability to compare own situation with other women under the same therapeutic regimen is factor that improves self-estimation [30].

The Role of Family and Friends in the Healing Process

At the end of treatment, the disease affects negatively not only the emotional sphere of the woman but also causes many physical and social constraints. Every thought of

a woman who has undergone oncological treatment for a disease or treatment has become a source of anxiety, fear of resumption of cancer and loss of life. Thus the superior value at this time is the appropriate support of family and loved ones. Disease is a disorder of biological nature, for the patient it is a subjective experience, and therefore she is experiencing disease from her own perspective by describing it and the accompanying symptoms. Disease is also in the context of family life. Family members release the sick person from certain responsibilities and help to meet certain needs [31].

Having breast cancer raises many negative emotions and fears. Many women are afraid that, as a result of surgery as well as cumbersome, long-term therapy, they will be deprived of not only their breasts, but also the possibility of further fulfilling their roles as wives or mothers. Fear of family disintegration or the disorder of married life often accompanies women who undergo mastectomy. Transition through the fight against breast cancer is an attempt for the whole family and involves entering the other members into new roles for the patient. A woman may initially feel helpless, lost in this new, difficult situation. Conversations about breast cancer require the patient and her closest courage, great sense and tact.

Sometimes women wonder how to tell a family about a deadly disease, fearing the reactions of their loved ones, and the fact that they may not be accepted after treatment.

A woman hearing a life-threatening diagnosis wonders how the illness and the treatment process will affect her family life, whether her husband / partner will accept her without her breast? Will she remain a full-fledged woman and mother for her children? Fighting breast cancer even if it is won leaves a lasting trace and fear of recurrence in the woman's psyche.

Chronic illness changes the functioning of the family. It is a situation that requires new roles. This process goes beyond consciousness, takes into account interactions between family members and the role performed by a sick woman. It is also important to what extent the illness threatens the life or reduces the patient's performance and how it affects her social roles. Depending on the answers to these questions, loved ones take over the role of a sick woman or expect her to recover. Psychological mechanisms are important here, including denying or adapting to the burden of disease.

Taking individual actions depends on how strong and integrated the family is. Oncological treatment is long-lasting and often requires the dedication of its members. Helping a husband or a friend is an important factor in the healing process. It is very important for the family to support the caring task that is being undertaken, as the overburdening of one of its members can lead to the so-called Caregiver Syndrome. It is characterized by frustration and even depression resulting from constant stress, dedication and overwork at the expense of meeting one's own needs.

Often the disease reverses the human to the role of the child. It offers opportunities to be helpless, "taken care of", release from responsibility and part of the tasks. It is similar to the role of the patient, which is not a biological situation but a set of social expectations. The disease causes emotional changes in the family, which would not have occurred without it. At the onset of the disease, there is a feeling of concern that can bring people together and contribute to greater sensitivity between them. High levels of emotional anxiety, which can have a negative effect on treatment and recovery, are reduced when a woman receives more support. Social contact and support from partner, friends, family, relatives, and medical staff are important factors for survival length [32].

Family life on the background of fatal illness can affect the psyche of its members in a variety of ways. Sometimes families may not be able to cope with the underlying problems. Sometimes patients need a lot of time to re-accept their body and learn to live in the family and society as before. In extreme cases, diagnosing of breast cancer can destroy relationships between spouses / partners. This is particularly likely when a woman and a man cannot talk honestly, take difficult, passionate emotions, and share feelings. Most often, however, the primary source of support and assistance for a woman is the spouse / partner and her children. Full family functioning and partner support can be an important factor in helping a woman overcome and accept the disease.

Better emotional functioning in women receiving support from family or friends may prove to have a significant impact on the acceptability of the disease after breast removal [13]. The response to the disease may be the overprotectiveness of the spouses who handle their women in every activity. This type of behavior limits the activity and independence of a sick person. Too much care surrounding a woman deprives her of independence and a sense of control over her own life or treatment. Both over-sensitivity and indifference can be harmful to a sick person who needs support and acceptance. The lack of acceptance of a man contributes to a sense of security and consequently to the lack of acceptance of oneself by the woman.

Disease often brings with it a creative power that contributes to arise good things. Although it is a drama for the relatives of suffering person, it raises the need to face a difficult situation, and may even become a motive for scientific discoveries or establish foundations specializing in helping the patients.

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