

Effects of Psychotherapy Interventions and Mental Activity in Control of Pain in Patients with Breast Cancer

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ABSTRACT

Background and aim: Pain is known as the greatest complication of cancer and cancer-related therapies. Therefore, control of pain has been considered with pharmaceutical and non-pharmaceutical methods. This study was performed to survey of mental and psychological activities in control of pain in patients with breast cancer.

Methods and materials: 166 patients with breast cancer were selected randomly in a specialist hospital in Tehran, Iran and the questionnaire, and the consent letter was completed by them. Patients were categorized into three groups; first group includes patients with great spirits and hope for complete recovery. Second group includes patients with major depression, and third group includes patients with moderate spirits. Most data in this study were for the primary group.

Results: According to data, in the deviation group, no acceptable mean of pain was obtained. In the hypothesis group, mean of pain was more passable. In the group which patients were conversed with own, mean of pain was more than previous two groups. The lowest mean of pain was related to the negative hypothesis group, and the highest mean of pain was related to patients who were prayed and hoped.

Conclusion: The obtained results showed that deviation and activity of mental are good way to control and reduce of pain. This method is without side effects, inexpensive and accessible, which reduces of pain in patients. This study suggests that use of mental activity is a non-pharmacological treatment to reduce of pain in outpatient and hospitalized patients.

Keywords: breast cancer, mental activity, psychotherapy, pain

INTRODUCTION:

Cancer is one of the most important therapeutic challenges in the world. In 2016, more than 1.6 million new types of cancer were identified in the world. In addition, mortality and morbidity of associated with cancer are very pervasive (1-3). The prevalence of cancer is increasing in the world and is more obvious in developing countries, so that 57% of cancers in world and 65% of cancer-related deaths are related to these countries (1). Recently, treatment of cancer is known as a progressive process, which completely related to time of diagnosis and quality of life in patients (4, 5).

Breast cancer is the most common cancer in women and second deadly cancer in the world. The prevalence of breast cancer was reported 10% (1 in nine people) in the United States in 2016. Furthermore, suggesting that prevalence of this cancer is more in the western countries, such as Africa, South America (6). Breast cancer is very common in our country too. Additionally, average age of Iranian patients is less than western countries about 15 years, and many patients are at young age (7). Breast cancer risk factors include age, genetics, family history, diet, alcohol, obesity, physical activity, lifestyle and endocrine factors (exogenous and endogenous). Moreover, regular referencing to mammography is very importance. However, it is unclear which factor plays major role in breast cancer (6).

The basis of this disease is an increase of cancer cells and formation a tumor, which often seen in the chest and armpit (7). Recently, studies have been shown that treatment process is difficult in three groups of patients: first group include patients with recurrent tumors; second group include patients with rapid tumor growth; third group include patients with poor prognosis, which depends on size and grade of tumor, involved receptors and lymph nodes (4, 7). Breast cancer treatments include surgery, radiotherapy, chemotherapy and endocrine therapy (4). However, these methods may have side effects on patients or life quality during the treatment process. Chronic pain is the most common complication of breast cancer and its therapeutic methods. Can-

cer pain is a multifactorial phenomenon, and its prevalence is increasing (8). Often, the growth of tumors is the cause of pain, also surgery and chemotherapy have a high correlation with chronic pain (2, 4, 8). For example, chemotherapy damage to nervous systems and create a significant pain (4, 9, 10). Although chemotherapy pain may be due to damage to nerve fibers during surgery, radioactive drugs or even dictation of patients. eventually these pains developed after mastectomy, which will have a physical and mental justification (9, 11). According to the above points, one of the most common side effects of breast cancer treatments is chronic pain after treatment. Persistent pain after breast cancer treatment (PPBCT) incidence is 24 to 47 percent in patients. These pains are the chronic type. Chronic pain is types of pain that lasts about three months and is an unpleasant feeling, mental experience, with tissue damage (9). This pain has a biological value and lasts longer than normal tissue repair (11). This pain is a type of burning, intermittent, recurrent, stable and resilient, which may continue greater than 12 hours in a day. The characteristic of chronic pain is the quick start, which rising after 3 minutes; its duration is usually 30 to 60 minutes and may occur 1 to 14 times in a day, which in total is larger than 12 hours and often is self-limiting (2). This pain was most observed in 5 areas: 1. Inside of breasts; 2. Location of breast removal; 3. Armpit; 4. Middle and upper of arm; 5. Place of the thorax which previously had a tumor. All of patients reported these pains after breast removal (9). The reported pain is usually moderate to severe. Approximately, chronic pain reported 40% in early stages and 60% in advanced and metastatic stages of breast cancer (1).

Recently, several organizations have acted to management of this pain. In general, the management methods which provided by analgesia, anesthesia, leaving addiction and American Pain Society (APS) clinics include medicine, physical intervention and psychotherapy methods (12). The first and traditional way to management of pain is the use of oral analgesic drugs (2). In fact, medical treatments include early analgesics, and this strategy is common among physicians; however, it has been proved that pain may continue with most complex

medical interventions (11). Furthermore, these drugs (non-steroidal anti-inflammatory, opiates and gabapentin) have side effects on health and life of patients (13); in addition, this method only effect on patients with neuropathic pain (12, 14). Psychotherapy methods play major role in treatment of neuropathic pain These treatment methods are effective on pain and quality of life in patients (12). On the other hand, clearly pain is a bio-psychological phenomenon, and brain detects and creates this response. Therefore, psychotherapy interventions increase brain activity and reduce the brain's response to pain; hence, this therapeutic approach can be very effective (11). At the same time, chronic pain is associated with many aspects of patient's life, such as emotional, cognitive, behavioral and verbal aspects. One of the most important points is the high rate of suicide in patients with chronic pain (2). According to reports, differences in patients may have a negative or positive effect on treatment, and type of attitude to pain, can exacerbate pain, create new pain or even improve pain (11). These points showed very high importance of psychotherapy in pain management. These treatments help to pain management with three different mechanisms: 1) eliminating complications that cause pain, such as depression, anxiety and fatigue; 2) improve mental health that increases duration of pain, if not treated; 3) certain activities which decrease the response to pain by increasing brain activity. These three methods are strongly associated with pain (12). Although drug treatments are prioritized in comparison with non-prescriptive therapies, they are often used when they do not respond to drug therapies; but it has been shown that psychotherapy can control weak to moderate pain alone. However, the best effect will be achieved that two methods used together (11, 12).

On the other hand, studies showed that chronic pain increase stress in patients (12, 15). Stress reduces the function of immune system (especially T lymphocytes) by releasing more dopamine, and lead to exacerbate cancer and pain. Therefore, activities that reduce stress in the patient and help to patient's mental health can be very helpful (16).

According to the above, we decided to have a detailed

and useful study on the psychological control of pain in patients with breast cancer in Iran. Also, considering that patients with breast cancer showed a lower average age in Iran in compared to other countries (7), we try to create a better life for them by evaluating effective techniques, including reading, listening to specific music, praying, going to the cinema, etc. Also, we reduce the use of analgesic drugs, and provide the obtained results to similar patients to improve their quality of life. For this purpose, we designed a questionnaire that included list of subjects and activities that patients experience during pain.

The aim of this study was to determine the level of mental and motor activity in patients with breast cancer and helping to control of their pain, using mental and motor activity. In the following, will be mentioned a full description of our study and results.

Method and Materials:

According to a case study, 166 patients with breast cancer were selected from specialized hospitals in Tehran in 2016. The obtained samples from this hospital belonged to many cities of Iran. Therefore, it seems that the results of this study related to all patients throughout Iran. This study was performed with informed consent of patients, hospital and according to the rules of ETHIC in the privacy of patients. The exclusion criteria include patients without definitive diagnosis for breast cancer and patients who suffer from other cancers in addition to breast cancer. Sampling was not done from patients in the intensive care unit and patients who did not have enough consent to cooperate. The subjects were not only hospitalized patients. Furthermore, patients in section of chemotherapy, radiotherapy and clinics of hospital were selected.

According to the obtained data from the study samples, the definitive diagnosis of their breast cancer was in 2014-2016, which maximum three years passed since their diagnosis. It should be noted that the studied patients had experience in chemotherapy, radiotherapy and etc., In other words, the questionnaires were completed by patients, which were during treatment. All

subjects included tumor encoding characteristics based on ICD-O (International Classification of Diseases for Oncology). Additionally, the age ranges of patients were 30-60 years.

The required questionnaire was designed to aim of control of pain, which derived from the Rosenstein and Kiev questionnaires. The questionnaire consisted of 40 questions, which are related to the activities that control and reduce of pain in patients. Furthermore, it has been asked that “does the patient have any control in own pain, or not.”

In this study, the patients were interviewed individually, and the interview began with unclosed questions and ended with open questions (open questions do not end with yes or no, and enough explanation were needed on the question).

During the interview, we tried to focus on physical body movements, thoughts, feelings and social life of patients. We tried to collect data more confidently, by asking questions such as (can you explain more?), (what do you decide on this in particular?), (are you sure?) and etc. Also, tried that understandings of patients from questions are complete and correct, which answers be close to reality. However, all of randomly selected variables will not be true, completely.

After collection of information, patients were classified into three groups. This classification was based on the mental health of patients: 1) patients which were confronted with own disease with strong spirit, good mental health and cheerfulness, and they were absolutely sure that their disease would improve. This group responded with complete relief to our questions; 2) patients with failed spirit, intense stress, depression and sense of ending life, which they were completely unable to fight against disease. This group responded with reluctance to our questions; 3) patients with mild mental health and spirit. This group responded with moderate relief to our questions.

The remarkable point was that the spirit of patients was largely dependent to mastectomy. Accordingly, patients who did not have the mastectomy were most subjects in the first group, and patients who have the mastectomy

were most subjects in the second group. However, this can largely be useful for patients.

Finally, obtained data were categorized into statistical tables, and analyzed using the SPSS program.

Results:

166 questionnaires were obtained from women with breast cancer with chronic pain as a symptom of their disease. The age ranges of all patients were in the 30-60 years.

According to the general principle that patients usually perform various mental activities to control or reduce their pain, six different hypotheses are proposed according to the type of questions. These hypotheses include: distracting thought of patient, reinterpretation of pain, talk with yourself, ignore of pain, negativism, prayers and hope. The statistical analysis of obtained data, which related to questions has been shown in tables 1, 2 and 3. According to the analysis of data and attention to mean and middle, each group represents following contents: In the distraction group, patients tried to forget their pain by leaving home, going to shopping centers, recreational centers and cinemas; moreover, tried to deviate from their minds from pain by reviewing the past good experiences and memories, at home. Unfortunately, reading and intellectual games did not have an acceptable impact on deviation of mind and control of pain. This result can be attributed to the low annual rate of study in Iran, high age of patients and lack of interest in doing intellectual games.

In the re-interpretation group, patients often tried to keep their minds out of pain and continue to their daily routine as nothing has happened. Patients in this group considered pain as a vague or feeling like warmth, weakness or numbness, and thus they were fought with pain. Patients did not prefer loneliness and trying to be among people to help relieve their pain.

In the talk with yourself group, patients talked with themselves during pain, which observed more effect than previous two groups. They said to themselves than be brave, ahead with pain, overcome your pain and etc. Patients reviewed with themselves that pain cannot hurt

Table 1. First and second subgroups

| Sub-group | Question | answer | Frequency | Frequency (%) | Average | mean | Standard deviation |
|--|--|---------------|-----------|---------------|----------|-----------|--------------------|
| No Attention | I leave home and do something such as go to the cinema or shopping | Rarely (0-2) | 49 | 29.50 | 3.421686 | 3 | 2.5207802 |
| | | Sometimes (3) | 45 | 27.11 | | | |
| | | Usually (4-6) | 72 | 43.39 | | | |
| | I study | Rarely (0-2) | 77 | 46.38 | 2.493975 | 3 | 2.5132108 |
| | | Sometimes (3) | 40 | 24.10 | | | |
| Usually (4-6) | | 49 | 29.52 | | | | |
| I Play mental plays with myself to distract my mind from pain | Rarely (0-2) | 100 | 60.23 | 1.765060 | 0 | 2.3100583 | |
| | Sometimes (3) | 36 | 21.69 | | | | |
| | Usually (4-6) | 30 | 18.08 | | | | |
| I Review pleasant past experiences in my mind | Rarely (0-2) | 40 | 24.09 | 4.066265 | 6 | 2.982504 | |
| | Sometimes (3) | 28 | 16.87 | | | | |
| | Usually (4-6) | 98 | 59.07 | | | | |
| I think to people who enjoy doing something with them. | Rarely (0-2) | 36 | 21.68 | 4.090361 | 6 | 2.3993540 | |
| | Sometimes (3) | 35 | 21.08 | | | | |
| | Usually (4-6) | 95 | 57.24 | | | | |
| Re interpretation of pain | I consider it not as pain but as a vague feeling or warmth feeling | Rarely (0-2) | 51 | 30.72 | 3.216867 | 3 | 1.4266044 |
| | | Sometimes (3) | 52 | 31.33 | | | |
| | | Usually (4-6) | 63 | 37.95 | | | |
| | I consider it as another emotion like slackness | Rarely (0-2) | 58 | 39.933 | 3.018072 | 3 | 2.4872500 |
| | | Sometimes (3) | 49 | 29.52 | | | |
| | | Usually (4-6) | 59 | 35.55 | | | |
| It is not important how much I get worse, I know that I can control it | Rarely (02) | 43 | 25.59 | 3.740963 | 5.5 | 2.5052492 | |
| | Sometimes (3) | 39 | 23.50 | | | | |
| | Usually (4-6) | 84 | 50.81 | | | | |
| I continue to work seems nothing has happened | Rarely (02) | 47 | 28.30 | 3.746987 | 6 | 2.4805309 | |
| | Sometimes (3) | 32 | 19.28 | | | | |
| | Usually (4-6) | 87 | 52.42 | | | | |
| I consider it as battle and do not let it bother me | Rarely (0-2) | 33 | 19.87 | 4.162650 | 6 | 1.9688910 | |
| | Sometimes (3) | 36 | 21.69 | | | | |
| | Usually (4-6) | 97 | 58.44 | | | | |
| I do everything to district my mind from pain | Rarely (0-2) | 40 | 28.92 | 3.771084 | 6 | 2.3498377 | |
| | Sometimes (3) | 32 | 19.28 | | | | |
| | Usually (4-6) | 86 | 51.80 | | | | |

Table 2. Third and fourth subgroups

| Sub-groups | Question | answer | Frequency | Frequency (%) | Average | mean | Standard deviation |
|---|--|---------------|-----------|---------------|----------|------------|--------------------|
| self-talking | I try to think about pleasant things | Rarely (0-2) | 42 | 25.29 | 4.030120 | 6 | 2.5277520 |
| | | Sometimes (3) | 25 | 15.06 | | | |
| | | Usually (4-6) | 99 | 59.65 | | | |
| | I Say to myself: be brave and go ahead | Rarely (0-2) | 36 | 21.68 | 4.240963 | 6 | 2.4027612 |
| | | Sometimes (3) | 27 | 16.27 | | | |
| | | Usually (4-6) | 103 | 62.07 | | | |
| I Say to myself: I can overcome on pain | Rarely (0-2) | 30 | 18.07 | 4.415662 | 6 | 2.2387765 | |
| | Sometimes (3) | 31 | 18.67 | | | | |
| | Usually (4-6) | 105 | 63.26 | | | | |
| I try to think about the future and my situation after getting rid of pain | Rarely (0-2) | 30 | 18.07 | 4.395661 | 6 | 2.2966033 | |
| | Sometimes (3) | 29 | 17.47 | | | | |
| | Usually (4-6) | 107 | 64.46 | | | | |
| I Say to myself: the pain does not hurt me | Rarely (0-2) | 37 | 22.28 | 3.981937 | 6 | 2.33018781 | |
| | Sometimes (3) | 39 | 23.49 | | | | |
| | Usually (4-6) | 90 | 54.23 | | | | |
| I Say to myself: I will not allow pain to stop me from doing things that I want do them | Rarely (0-2) | 40 | 24.09 | 3.795780 | 4.5 | 2.41361118 | |
| | Sometimes (3) | 42 | 25.30 | | | | |
| | Usually (4-6) | 84 | 50.61 | | | | |
| Ignoring the pain | I try to feel pain is far from me like that the pain is in someone else's body | Rarely (0-2) | 52 | 31.33 | 3.777108 | 3 | 2.603799 |
| | | Sometimes (3) | 39 | 23.49 | | | |
| | | Usually (4,6) | 75 | 45.18 | | | |
| I do not think about pain | Rarely (0-2) | 59 | 35.53 | 3.180722 | 3 | 2.5608007 | |
| | Sometimes (3) | 39 | 23.49 | | | | |
| | Usually (4-6) | 68 | 40.98 | | | | |
| I do not pay attention to it | Rarely (0-2) | 70 | 42.16 | 2.975903 | 3 | 2.6613527 | |
| | Sometimes (3) | 28 | 16.87 | | | | |
| | Usually (4-6) | 68 | 40.97 | | | | |

them and prevent them from doing their work. Patients tried to think about of painlessly in the coming years and indicates a high level of hope in patients to improve pain and disease.

In the ignore of the pain group, the obtained results showed that usually, patients did not think to pain and trying to distance themselves from pain. However, this does not mean that patients are not attention to pain. In the negativism group, obtained data showed that most patients were not afraid of pain and did not consider it as a terrible feeling and intolerance of pain and

failure was not seen in most of the patients. In fact, this pain did not prevent the daily activity of patients, and most of the patients did not worry about endless of pain. They did not feel that life was not worth to continuing and fighting; on the contrary, they had a strong desire to fight with pain and continuing life. This good spirit in patients can be attributed to spiritual dimension of patients, or not new data related to patients and patients in the treatment process.

In the prayer and hope group, obtained some interesting results, which could complete results of the previous

Table 3. Fifth and sixth subgroups

| Sub-group | Question | answer | Frequency | Frequency (%) | Average | Mean | Standard deviation |
|---|--|---------------|-----------|---------------|----------|------------|--------------------|
| Catastrophe | This is a terrible feeling and I feel it will never be good at work | Rarely (0-2) | 107 | 64.45 | 1.614457 | 0 | 2.3119976 |
| | | Sometimes (3) | 28 | 16.87 | | | |
| | | Usually (4-6) | 31 | 18.68 | | | |
| | This is a scary feeling and I feel it will break me | Rarely (0-2) | 97 | 58.43 | 1.734939 | 0 | 2.2579676 |
| | | Sometimes (3) | 41 | 24.70 | | | |
| | | Usually (4-6) | 28 | 16.87 | | | |
| I feel that my life has not worth to continue | Rarely (0-2) | 111 | 66.87 | 1.415662 | 0 | 2.0704749 | |
| | Sometimes (3) | 31 | 18.67 | | | | |
| | Usually (4-6) | 24 | 14.46 | | | | |
| I'm always worried about whether the pain will end | Rarely (0-2) | 64 | 37.55 | 2.819277 | 3 | 2.4770978 | |
| | Sometimes (3) | 46 | 27.71 | | | | |
| | Usually (4-6) | 56 | 34.74 | | | | |
| I feel that I cannot stand it any more | Rarely (0-2) | 97 | 58.43 | 1.933734 | 0 | 2.4424349 | |
| | Sometimes (3) | 31 | 18.67 | | | | |
| | Usually (4-6) | 38 | 22.90 | | | | |
| I feel that I cannot stand it anymore and I cannot continue to work | Rarely (0-2) | 98 | 59.03 | 2.066226 | 0 | 2.5549654 | |
| | Sometimes (3) | 24 | 14.45 | | | | |
| | Usually (4-6) | 44 | 26.52 | | | | |
| Praying and hopefulness | I know one day someone will be found to help me and pain will destroy for awhile | Rarely (0-2) | 27 | 16.26 | 4.530120 | 6 | 2.2571851 |
| | | Sometimes (3) | 27 | 16.26 | | | |
| | | Usually (4-6) | 112 | 67.48 | | | |
| | I pray to god that it will not last long | Rarely (0-2) | 5 | 3.01 | 5.716867 | 6 | 1.1398921 |
| Sometimes (3) | | 5 | 3.01 | | | | |
| Usually (4-6) | | 156 | 93.98 | | | | |
| I believe to my doctors that they will find a remedy for my pain | Rarely (0-2) | 18 | 10.30 | 4.927710 | 6 | 1.98356381 | |
| | Sometimes (3) | 24 | 14.46 | | | | |
| | Usually (4-6) | 124 | 75.29 | | | | |
| I pray to stop the pain | Rarely (0-2) | 3 | 1.80 | 5.807228 | 6 | 0.09243061 | |
| | Sometimes (3) | 4 | 2.40 | | | | |
| | Usually (4-6) | 159 | 95.80 | | | | |

group. Most of the patients relied to their physician and were confident that their disease and pain would recover, completely. All of patients prayed for God to stop their pain and disease; this cannot be attributed to the particular religion of people and high level of spirituality in Iran. People around the world, in difficult conditions, such as disease and pain, first refuge to God and seek help from God, which this is not related to religion.

At the end the end of our study, the obtained conclusion was in the form of questions, which are shown in table 4. Generally, it has been shown that patients can control and reduce their pain, using these methods.

Discussion:

Cancer is recognized as the greatest medical challenge in the world and pain is introduced as the most common

Table 4. Conclusion

| Question | answer | Frequency | Frequency (%) | Average | Mean | Standard deviation |
|---|---------------|-----------|---------------|----------|------|--------------------|
| According to the all mentioned questions, feel how much you control your pain | Rarely (0-2) | 39 | 23.49 | 3.656625 | 3 | 2.3671567 |
| | Sometimes (3) | 56 | 33.73 | | | |
| | Usually (4-6) | 71 | 42.78 | | | |
| According to the all mentioned questions, how much you can reduce your pain | Rarely (0-2) | 41 | 20.70 | 3.554216 | 3 | 2.4037671 |
| | Sometimes (3) | 52 | 31.33 | | | |
| | Usually (4-6) | 73 | 43.97 | | | |

complication of cancer. There is also a direct relationship between severity of pain and death in patients with cancer (17). Therefore, this study was conducted with regard to different aspects of treatment and management of pain, and more attention to the psychological and spiritual aspects, and mental activity in patients.

Our findings showed that most patients do various mental and physical activities during pain, and thus they can control and reduce of their pain largely. The most important finding in this study was increased of spiritual level in patients, and help request from God, as a source of help. Our findings showed that most patients were in good mental condition, and this struggle with disease and high motive has a great impact on control and reduces of pain.

As noted above, this study showed that patients tried to doing mental and physical activity to control of pain. Of course, mental activities were more attentive to patients, but sometimes physical activity was performed. This is justifiable scientifically, because chronic pain is not a simple sense, and is influenced by processing methods of pain signals by brain. In fact, chronic pain can be reduced in terms of individual beliefs about of pain signals, or on the contrary, creates fear, anxiety or horror. Therefore, it can be said that education to patients is important for control of pain (18).

According to the above, the study is very important in pain control. The study helps significantly to control of pain, with two directions. First, patients can acquire the necessary training in pain management and increase their level of information. Second, pain is a vague feeling

and showed that pain signals can easily be blocked with involvement of other senses, such as sight, hearing, and tactile. Therefore, if patients are studying during pain, significantly reduces pain by affecting the sense of vision. On the other hand, blocking of pain-related signals will be faster and easier, when the number of involved senses is high. Therefore, if patients are studying in an open environment and listening to the sound of birds and water or walking in seaside, can more easily block the pain-related signals and control of pain (15).

Unfortunately, patients were unaware of effects of study on control of pain, and no significant results were obtained; even so, it seems that with more training to patients about the effects of study on control of pain, we can get very interesting results.

After study, we are paying particular attention to doing intellectual games for control of pain. This issue has been widely considered in recent years. For example, in a study was studied the effects of intellectual games on the pain of children with burns. The aim of this study was to control of side effects of analgesic drugs in children. They showed that intellectual games lead to distraction of children from pain, stopping pain and break pathways that cause pain. Additionally, the intellectual games can be done in hospital environments, and are required little fees and facilities (19).

Another example is a study that examines the use of the specific applications in management of pain. This study as well had similar results to the previous study. They showed that children could reduce their pain using these game applications, which include intellectual games and

other entertainment (20).

In present study, intellectual games did not acceptable for patients in Iran. The reason is that intellectual games are not common in age range of studied patients in Iranian. On the other hand, studies have measured the effects of intellectual games on children. Most probably that these results cannot be acceptable for adults, and it seems that evaluation of intellectual game's effects on adults with chronic pain is very helpful. Also, design of new applications, which includes information about pain control techniques and intellectual games, can be very useful. Because these applications increase motivation in patients to do intellectual games and study.

Rarely, patients do physical activity when they have pain. Physical activity can be effective in control of pain by strengthening of muscles and settlement of blood circulation. It has been shown that regular exercise and even yoga can have a positive effect on general health and pain of patients with breast cancer (7, 21).

Another aspect of this study was to consider of pain as a sense of heat and cold, weakness and numbness; because these feelings seemed to be less annoying than pain. Because it seems that these feelings are less painful than pain. Interestingly, it can be very helpful if these feelings altered from the mental aspect to the practical aspects. It has been shown that heat, and cold can be effective in reduce of pain. However, sometimes it becomes confusing to decide that which one suitable to control of particular pain. However, according to previous studies, it can be said that cold is advantageous for acute pain and new injuries that are swollen and inflamed; whereas heat is more suitable for chronic pain or injuries that have passed over a day (22, 23) 23). Therefore, use of heat is beneficial for treatment and control of chronic pain of breast cancer, and it will be more effective if patients use heat as a practical way to reduce of pain, instead imagine pain as heat. Heat increases blood supply to the site of pain and reduces pain by removing toxins. Another aspect of this study was talking with yourself. This is a natural reaction. In time of excitement, human tries to analyze this excitement and solve it in his mind and restore calm again; pain is also one of these excitements.

In this method. Patients confront with excitement by two ways: the first group is trying to confront with the problem with hope and peace; hope is a strong parameter in control of pain, and an effective factor in experience of pain or control of pain severity (24) . The second group is patients with weak mood and depression in confront with problems, and they tend to suicide with increased severity of depression (25).

In present study, patients were more in the first group; this conclusion seems to be two points: first, the obtained results in our study can be attributed to the gender of patients (26). Second, given that there is a direct relationship between age and life expectancy, we can remind the age mean of patients in Iran and justify the obtained result. On the other hand, a study reported that patients in chronic pain, showed to improve in spirit, positive personality change and spirituality change, during disease. This is related to purposeful life, meaningfulness life, and introspection of patients (27). In this study, a few patients were scared of pain and considered it terrible. Other patients, fighting with pain with high spirits. The final aspect of this study was related to prayer and asked for help from God, during pain. These results were comprehensive, and all the patients asked help from God. In a previous study, the religion of Iranian patients was evaluated, and it is recognized as a major source, which plays a role in dealing with stressful conditions, such as chronic pain (28). It seems that religious dimension is important, but we cannot link "ask help from God" to the particular religion in Iranian people or other countries. Furthermore, relying to a strong source of help, is important in all religions. Therefore, we can accept the conclusion of above study, if use the word of spirituality instead of the word of religion and distinguish religion and spirituality.

According to our results, clearly control of pain is a multidisciplinary process, and will be achieved by the combination of psychological and physical dimensions (29). However, very little attention is paid to the psychological dimension of patients with chronic pain, and there are many questions about this (30, 31).

According to limitations of our study, includes one-di-

mensionality of gender in patients with chronic pain, and their specific age's range (in middle age), it seems that to obtain definitive results, required further studies on other cancers, children, older people and two genders (men and women).

Conclusion:

According to our study, most patients used mental and physical activity to control of pain, and these methods are effective in reduce and control of pain. Most patients are mentally altered and relying on God and struggle with pain to reduce pain and treat disease. In fact, mental deviance, mental activity and increase of spiritual dimension are known as pain control methods with least cost and time, without any complications, and usable in hospitals, and can be easily accessible to patients.

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Conflict of interest:

There is no conflict of interest.

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