

The Relationship of Meta-Cognition Beliefs and Different Types of Coping with Stress with Marital Conflicts in the Women Suffering from Breast Cancer

¹Zahra Namdaran, ²Abed Mahdavi, ³Masoud Sadeghi, ⁴Faranak Shirvani,
⁵Mohammad Ehsan Taghizadeh and ⁶Mohsen Mirzaagha

¹Department of Psychology, Islamic Azad University, Karaj, Iran

²Department of Psychology, Faculty of Psychology and Educational Sciences,
Payam Noor University, PO Box, 19395-3697 Tehran, Iran

³Department of Psychology, Lorestan University, Khorramabad, Sharijah, Iran

⁴Department of Education and Psychology, University of Payam Noor,
International Branch, Sharijah, Dubai

⁵Department of Psychology, University of Payam Noor, PO Box, 19395-3697 Tehran, Iran

⁶Department of Psychology, University of Zanjan, Zanjan Iran

Abstract: The aim of this study was examining the relationship between meta-cognition belief and different strategies for coping with stress and marital conflicts in the women suffering from breast cancer. The statistical population of this study consist of the women suffering from breast cancer who are under treatment in Ayatollah Khansari hospital, Arak among which 76 patient were chosen by available sampling method, they have replied to the questions in the questionnaires of meta-cognition belief, coping strategies and marital conflicts. The methodology of this research was descriptive correlation. After correcting and scoring the obtained data by multi variable regression, they have been analyzed through SPSS software. The findings show that the meta-cognition belief consists of controllability, cognitional paradox, self-awareness paradox, need for controlling thoughts and positive belief, that in total account for 33.9% of coping strategies, namely, avoidance, problem oriented and emotional oriented which altogether explain about 30.6% of changes related to “marital conflicts” among women who are suffering from breast cancer.

Key words: Meta-cognition belief, strategies for coping with stress, marital conflict, breast cancer, belief

INTRODUCTION

Nowadays, despite an incredible development in medical science, cancer is still one of the most important diseases and known as the second cause of death, after heart and vascular diseases. Mardani Hamule and Shahraki Vahed symptoms of cancer in general consist of abnormal cell deformation and losing cell distinction. Barghi Irani cancer is known as a refractory disease and consequently people who are suffering from it, face anxiety and depression and sometimes even mental disorder. Among different kinds of cancer, breast cancer is the most prevalent illness among women. It is defined as an unusual development of abnormal cells in which they grow uncontrollably and get distributed and eventually make some tissues called tumor. These tissues are usually painless and appear as a rough bump in the exterior part of breast. Almost 8-9% of women have

experienced breast cancer in their lives. In the study of Ranjbar Kouchksarayi, Mostafavi Pirkhaeghi and Salehi, the percentage of spread of the anxiety disorder and depression among women suffering from breast cancer was reported to be 25.9 and 39.5%, respectively. Bahmani (2010)'s studies also showed that lots of women with breast cancer suffer from some emotional problem such as sadness, depression, anxiety, vulnerability, anger, fear and isolative behavior in a range of average to extreme. Almost all of the evidence suggest that diagnosing one of the family members as having breast cancer, cause crisis of different levels between the others (Schneider, 2000). Family is a social and natural organization which has its special features. In such an organization, members are connected to each other by strong and mutual sentimental ties and interests. Tafvizi and Vicks stated that one of the most frequent problems among families is marital conflict. While people are facing with Dillemmas in the life cycle,

none of them could cross it without any problems. Sometimes they undergo some psychological pressure and marital conflicts. In this regard, Bahadori and Khayer, (2012) said that marital conflicts happen in relationships when behavior of one of them do not meet the other one's expectation. Existing conflict in life is an inevitable part of human nature which is originated from personal characteristics of either of people in a relationship. About this challenge, Bahadori and Khayer (2012) stated that divorce could be used as a tool for managing conflicts and causes peace and ends the marriage problems. Couples splitting up is the most common sign of marital conflicts and studies show that almost half of the couples will eventually end up divorcing (Young and Long, 2007). It seems that being diagnosed with a dangerous disease such as cancer could adversely affect people's mental health and could causes some disorder such as depression, anxiety and emotional problems which might lead to some conflicts among family members specially couples. Considering these facts, some psychological variables as well as personal characteristics of people could increase or decrease the mentioned conflicts. One of these effective parameters seem to be people's meta-cognition belief. Metacognition is defined as an item of information that a person gains from his cognitional system, by developing and improving this cognitional system among people, a set of cognitional and regulatory process is formed which causes applicability, flexibility of memory and aimful and informed learning. Researches have shown that there is a relationship between different aspects of metacognition and psychological disorder (Wells, 2001). Hodson and Elice illustrated that worriment is one of the basic components of anxiety disorders such as pervasive anxiety and social fear that has special relationship with positive and negative cognition belief. Bahadori and Khayer (2012) also found the aspects of metacognition such as positive meta-cognition belief in the area of worriment and low cognitional confidence, effective for causing anxiety. Besides, in the other study, it has been verified that there is a meaningful relationship between different aspects of metacognition and social anxiety (Bahadori and Khayer, 2012). Positive meta-cognition belief about anxiety, are those which are related to a person's positive opinions on applicability of methods for coping with problems but these methods are not effective. For example, worriment means that I am ready and if I were worried, I would be more prepared for confronting problems (Wells and Cartwright, 2005; Bahadori and Khayer, 2012). Metacognition is a multi-faceted concept which consists of knowledge,

processes and methods that evaluate, supervise or control "cognition". It has also be shown by researches that meta-cognition belief have relationship with existing stress after an accident. Method of coping with stress, is the other parameters which seems to be in relation with marital conflicts and we are to examine its effects in this study. Method of coping with stress as a mediator parameter could affect consequences of stress. Different people use different methods for coping with their stress as Jadidi *et al.* (2015) stated coping strategies have three categories: problem oriented coping strategy describe such methods by which a person evaluates actions that should be done for decreasing or eliminating a tension. Emotional oriented coping strategy are methods in which a person concentrates on his own and tries his best to reduce his attention to negative or unpleasant feelings and finally avoidance coping strategy which requires activities and cognitional changes and its aim is avoiding stressful situations. On the other hand, psychologists consider a person mentally healthy, even if he can make balance between his behavior and social stress while facing problems. Akbari stated that normal students (non-depressed) seem to use problem oriented method while depressed students use emotional oriented method facing stressful situations. Ando said that people with low amount of score in motivation use emotional oriented method and usually are not relaxed, however people who have gained a good score in motivation often use cognition oriented way and are healthy in general with proper and acceptable social interactions. On the other hand, utilizing inefficient emotional coping strategies could results in increasing physical symptoms, anxiety, sleeping disorder, Disorder in social interactions and severe depression in people. Since, being diagnosed with cancer is a serious challenge for people, the way of reacting and facing this challenge and its consequences and methods of problem solving as well as presenting proper solutions are of an extreme significance. Undoubtedly, all of the mentioned factors could have a strong connection with various parameters such as meta-cognition belief and also the method of coping with stress. The latest reports by Iranian Cancer Association show that 25% of cancers among Iranian women are Breast cancer. Therefore, it seems absolutely essential to consider different psychological parameters related to cancer. As a result, in this study, we have tried to answer this question is there a meaningful relationship between meta-cognition belief and strategies for coping with stress for women diagnosed with breast cancer and marital conflicts?

MATERIALS AND METHODS

The method which has been used was quantitative, descriptive (non-experimental) and correlation. The data have been obtained by conducting relevant questionnaires. The statistical population for this study consist of all women diagnosed with breast cancer in Ayatollah Khansari hospital in Arak, 76 of them were chosen by available sampling method. Considering decreasing in participants, 69 questionnaires have been examined. The data have been analyzed through SPSS software with descriptive (average and standard deviation) and interferential (multi variable regression analysis) statistics.

Research instruments

The questionnaire of meta-cognition belief: Is a self-report scale with 30 items which evaluates people's differences in belief, judgements and regulatory trends. This questionnaire consists of 5 subscales: cognitional paradox, positive belief, cognitional self-awareness, controllability and danger of thoughts (or negative belief about uncontrollability and danger of thoughts), a need to controlling thoughts. Each item is scored on a four-point Likert scale (not agree, a bit agree, almost agree and completely agree). Wells and Cartwright (2004) in their research reported acceptable amounts for internal consistency, validity, reliability of test and proper retest. The validity of this questionnaire has been calculated by Cronbach's alpha which is equal to 0.78, 0.74, 0.81, 0.79 and 0.67 for cognitional paradox, positive belief, cognitional self-awareness, controllability and danger of thoughts and a need to controlling thoughts, respectively. This scale has been calculated 0.88 for the whole questionnaire.

Marital Conflict Questionnaire (MCQ): In order to examining the rate of marital conflict among couples, the 42- item questionnaire of MCQ has been used. In this questionnaire the choices for each question were selected by Likert scale, 5 options as "always", "usually", "sometimes", "rarely" and "never" have been considered which the scores of 5 and 0 have assigned for options of "Always" and "Never", respectively. The reliability of this tool has been evaluated by Barati with the score of 0.52 and Farahbakhsh with the score of 0.69. A low score accounts for low conflict while a higher score represents increasing conflict.

The styles of coping with psychological pressure questionnaire by Andler and Parker (CISS): Andler and Parker developed this questionnaire with the aim of

evaluating different styles of people's coping in stressful situations. They eventually came up with three different styles, namely, problem oriented, emotional oriented and avoidance. This test consists of 48 questions that each 16 questions are allocated to one of the aspects of coping. Andler and Parker calculated the reliability coefficient of this test for the styles of problem oriented, emotional oriented and avoidance as 0.92, 0.82 and 0.85, respectively for boys' sample and for girls' sample 0.90, 0.85 and 0.82. This test translated into Persian by doctor Akbarzadeh in Iran for the first time. He also normalized it and used it for examining styles of coping with psychological pressures among teenagers in Tehran between the years of 1982 and 1992. The reliability of this test has also been verified in several researches such as Tabatabaie and Vaghari (Bahadori and Khayer, 2012). In the research by Bahadori and Khayer, the reliability coefficients in this scale has been calculated 0.67, 0.71 and 0.79 for styles of problem oriented, emotional oriented and avoidance, respectively.

RESULTS AND DISCUSSION

In this part, firstly the descriptive indexes of parameters were used in the research were shown and after that we examine the assumptions of our study (Table 1).

The information in the above table show that the parameters of meta-cognition belief were situated in the range of 3.59-3.68. This means that the group of people who were tested in this research show a proper state in this part and the obtained scores as averages for meta-cognition belief is more than the mean value. The table illustrates that the average score for marital conflicts is 2.45 which means that the rate of marital conflicts among the couples who were studied were lower than the mean value and as a result the rate of their satisfactory were not acceptable. Also about the styles of coping with stress, the results show that the statistical population of the research have the average score between 3.57 and 3.58.

First assumption: Meta-cognition belief play role in predicting marital conflicts among women suffering from breast cancer (Table 2).

Based on the information provided in the above Table 3, the correlation between "meta-cognition belief" and "marital conflicts" equals to 0.582. In the other words, "meta-cognition belief" consist of "controllability", "cognitional paradox", "cognitional self-awareness", "need for controlling thoughts" and "positive belief" altogether account for 33.9% of changes related to "marital conflicts" of women suffering from breast cancer ($R^2=0.339$).

Table 1: The results of examining the central indexes and deviation of parameters of the study

Variables	Average	Median	Mode	SD	Variance	Min.	Max.
Cognitional paradox	3.681000	3.750	3.000	0.9178000	0.842	1.0	5.00
Positive belief	3.629000	4.000	4.000	0.9546000	0.911	1.0	5.00
Cognitional self-awareness	3.606000	3.500	4.500	0.9146000	1.836	1.0	5.00
Controllability and danger of thoughts	3.605000	3.500	4.000	0.9340000	0.872	1.0	5.00
Need for controlling thoughts	3.591000	3.750	4.500	0.9264000	0.858	1.5	5.00
Problem oriented coping strategy	3.585000	3.500	3.500	0.8957000	0.802	1.0	5.00
Emotional oriented coping strategy	3.579000	3.500	3.500	0.9064000	0.821	1.0	5.00
Avoidance coping strategy	3.575000	3.500	3.500	0.8959000	0.803	1.0	5.00
Marital conflicts	2.451145	2.375	2.375	0.6382203	0.407	1.0	4.83

Table 2: The summary of regression test for predicting marital conflicts based of meta-cognition belief

Model	The predictive parameters entered to the model	Correlation coefficient	Square of correlation coefficient	Normalized correlation	Significance level
1	Controllability	-	-	-	-
	Cognitional paradox	0.582	0.339	0.313	0.01
	Cognitional self-awareness	-	-	-	-
	Need for control thoughts	-	-	-	-
	Positive belief	-	-	-	-

Table 3: Coefficients of meta-cognition belief in predicting marital conflicts

The variables entered to the model	Model	B	SE	The standardized coefficients of parameters	t-values	Significance level
	Y-intercept	-	-	-	-	-
	Parameter coefficient	37.100	3.100	-	11.9	0.01
Controllability	Parameter coefficient	0.279	0.211	0.102	3.6	0.01
Cognitional paradox	Parameter coefficient	0.264	0.164	0.225	3.3	0.01
Cognitional self-awareness	Parameter coefficient	0.435	0.157	0.209	3.8	0.01
Need for controlling thoughts	Parameter coefficient	0.290	0.089	0.228	3.3	0.01
Positive belief	Parameter coefficient	0.443	0.116	0.259	3.4	0.01

Table 4: The summary of multi variable regression test in predicting marital conflicts based on styles of coping with stress

Model	The variables entered to the model	Correlation coefficient	Square of correlation coefficient	Normalized correlation	Significance level
1	Avoidance strategy	-	-	-	-
	Problem oriented strategy	-	-	-	-
	Emotional oriented strategy	0.554	0.306	0.293	0.01

Table 5: the Coefficients of styles of coping with stress in predicting marital conflicts

The variables entered to the model	Model	B	SE	Beta	t-values	Significance level
Avoidance	Y-Intercept	28.800	2.500	-	11.40	0.01
	Parameter coefficient	0.399	0.103	0.279	3.90	0.01
Problem oriented	Parameter coefficient	-0.577	0.095	-0.422	3.90	0.01
Emotional oriented	Parameter coefficient	0.287	0.092	-	3.17	0.01

As it can be seen in the above table the coefficients of “controllability”, “cognitional paradox”, “cognitional self-awareness”, “need for controlling thoughts” and “positive belief” are meaningful in level 0.01. In the other word these factors are able to predict marital conflict of women suffering from breast cancer in a meaningful manner.

The second assumption: The styles of coping with stress play a role in predicting marital conflicts among women suffering from breast cancer.

The results in Table 4 suggest that the relationship between “styles of coping with stress” and “Marital conflicts” is estimated to be 0.554. It means that “Avoidance coping strategy”, “problem oriented coping strategy” and “Emotional coping strategy” altogether account for 30.6% of changes related to “marital conflicts” in the women suffering from breast cancer. ($R^2= 0.306$).

The obtained numbers from Table 5 show that the coefficients of parameters of “avoidance coping strategy”, “problem oriented coping strategy” and

“emotional coping strategy” in predicting “marital conflicts” are meaningful in the level Of 0.01 or in the other word the strategies for coping with stress are capable to predict marital conflicts among women with breast cancer in a meaningful manner.

CONCLUSION

The aim of this study was to examine the roles of meta-cognition belief and strategies for coping with stress in predicting conflicts among women who are suffering from breast cancer. The results of examining the assumptions in the research showed that meta-cognition belief and strategies for coping with stress are important predictive of marital conflicts. These results agree with the ones by Bahmani (2010), Schneider (2000) and Wells (2001). Studies show that pain and suffer resulted from disease, fear of death, side effects, reducing functionalities, disorder in imagination and sexual problems are among the factors which affect psychological health of people with breast cancer.

(Torkaman, 2012). Since, being diagnosed with refractory diseases such as cancer, make crisis and mental disorder like anxiety and depression in people, one of its most important consequences could be having conflict with the other people specially her husband. So, examining parameters related to marital conflicts is absolutely essential, so that with finding effective ones, help these people to reduce their problems. One of the parameters which its connection with psychological disorder such as anxiety has been proved in several researches is meta-cognition belief (Bahadori and Khayer, 2012). Metacognition to structures, science and psychological processes deal with change and interfere thoughts and knowledges. Based on recent studies, metacognition is one of the most important factors in developing and continuing psychological disorders. Metacognition has effects on emotional analysis and reactions related to damage by the mean of effects of science and metacognition approaches on changing belief and interfering special signs such as bothering thoughts. On the other hand meta-cognition belief affect etiology and stability of anxiety. Rosis and Wales examined role of meta-cognition belief and coping strategies among people. The results suggested that the approach of controlling worriment as well as positive and negative metacognition has direct relationship with stress signs. Based on metacognition theory in psychological disorders, metacognitions are important components in predicting psychological problems (Yilmaz *et al.*, 2011). Psychological disorders happen, mostly when a person's style of thought and compatibility, involuntarily move toward focusing on emotional responses which is mostly because of thought rumination and worriment. Scragg (2010), the metacognition model states that metacognitions are responsible for controlling our minds both in positive or negative way and the factor that determine emotions and ways of controlling them is how to think not what to think. The metacognition approach believes that people become sad and emotional because their metacognitions lead to a special pattern of responding to internal experiences which make negative thoughts and emotions, continuous. Based on previous studies, people who respond to stresses of life with optimism and flexibility and use effective coping strategy and feel responsible for the events in their lives, possess a much more better immunity system which protects the against diseases and have a higher rate of mental health. (Coyne, 2006). Ghazanfari Ghadampour resulted in their study that the more people use problem oriented coping strategy, the better their health get. On the other hand emotional oriented strategies increase physical signs, anxiety, depression and disorder in social functioning. In the other words, people's mental hygiene in the areas of physical, mental and social, depends highly on the

strategy they use for coping with stress. As a result, considering our findings in this research, trying to improve the current condition of meta-cognition belief as well as strategies for coping with stress, for example with educating people to use problem oriented strategy, could lead to decreasing the amount of marital conflicts among women suffering from cancer.

REFERENCES

- Bahadori, E. and M. Khayer, 2012. The relation between psychological obstinacy and family flexibility with strategies for coping with stress among female high school students. *Psychol. Mod. Methods*, 2: 1-18.
- Bahmani, B., 2010. A comparison of effects of two cognition therapy intervention methods of education-oriented based on Michel Ferry Style and cognitive-existential group therapy on hope self-esteem and quality of life in women with breast cancer with symptoms of depression. PhD. Thesis, Allame Tabatabaie University, Tehran, Iran.
- Coyne, G., 2006. An investigation of coping skills and quality of life among single sole supporting mothers. *Int. J. Anthropol.*, 18: 127-138.
- Jadidi, F., S.A.M. Norouzpour and N.A. Asghar, 2015. Emotional Intelligence Spiritual Intelligence and Strategies for Coping with Stress Among Students. Springer, Berlin, Germany, pp: 381-384.
- Schneider, M., 2000. Beacon in the storm: An explosion of the spirituality and faith of parents whose children have cancer. *J. Compr. Pediatr. Nurs.*, 29: 3-24.
- Scragg, P., 2010. Metacognitive therapy (Developed by Adrian Wells). M.A. Thesis, Trauma Clinic LTD and University Collage, London.
- Torkaman, M., 2012. A comparison of the effects of group education about optimism and group psychology on depression anxiety and quality of life among women who are suffering from breast cancer. MSc Thesis, Allame Tabatabaie University, Tehran, Iran.
- Wells, A. and H.S. Cartwright, 2004. A short form of the meta-cognitions questionnaire: Properties of the MCQ-30. *Behav. Therapy*, 42: 385-396.
- Wells, A., 2001. Emotional Disorders and Metacognition Innovative Cognitive Therapy. Wiley Publication, Hoboken, New Jersey,.
- Yilmaz, E.A., T. Gencoze, and A. Wells, 2011. The temporal precedence of metacognition in the development of anxiety and depression symptoms in the context of life stress: A prospective study. *J. Anxiety Disord.*, 25: 389-396.
- Young, M.E. and L.L. Long, 2007. Counseling and Therapy for Couples. Brooks-Cole Publishing Company, Pacific Grove, California,.