

Investigate the Relation between Stress Coping Strategies with Life Expectancy and Psychological Well-Being in Mothers with Cancer Children

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Abstract

The aim of this research to examine the relation between stress coping strategies with life expectancy and psychological well-being. The statistical population consisted of mothers of suffering cancer children under medical care in Mahak institute. 89 subjects were selected as sample, by using convenience sampling method; Then, they were assessed by stress coping, life expectancy, and psychological well-being questionnaires. Data attained were analyzed through multivariate regression analysis. Analysis of findings demonstrate that there is significant relationship between Stress Coping Strategies with life expectancy and psychological well-being in mothers suffering cancer children in level of 0.01. In other words, results indicated that stress coping strategies expressed almost 24.6 percent of life expectancy changes, and 19.6 percent of psychological well-being in mothers with cancer children.

Keywords: Stress Coping Strategies, Life Expectancy, Psychological Well-Being, Cancer.

Introduction

Cancer is considered to be a disease which is extremely hard to treat; and individuals who have cancer experience anxiety and depression, and they finally end in mental disorders (Bamshad and Seifkhani, 2006; cited in Barghi Irani et al, 2013). Challenges caused by cancer lead to imbalance in thoughts, body, and mind. The most common case in such situations is feeling of hopelessness (Soeken and Carson, 1987). Through examination, it seems that cancer, compared to other chronicle diseases, has the most effect on hope, which is a threat to hope (Roleigh, 1992). Hope predicts physical and mental health which has been recognized by a variety of indexes such as self-report health, positive response to medical interventions, mental health, positive behavior, cognitive strength, effective coming-to-terms, and behaviors which enhance health (Yeganeh, 2013). Psychologists believe that hope can have a mental psychological effect on disease (Frank, 1978). In a research on cancer people, Roland (1998; cited in Alizadeh et al., 2013) stated that individuals with greater hope were able to more easily stand treatment signs such as hair loss, fatigue, and nausea. Studies have shown that hope has a positive correlation with positive emotion and self-value (Snyder, 1995), and that it is negatively correlated with anxiety and depression (Wells, 2005; cited in Alizadeh et al., 2013), and generally with negative emotions. Hopeful thoughts and cancer are correlated in two ways: first, hopeful individuals use more problem-oriented defense strategies. They are more likely to have cancer screening behavior. In addition, hopeful individuals exhibit less distress and more adaptation when receiving treatment (Snyder, 1999). Generally, seven important features have been considered for hope; they are: positive expectations, future orientations, purposefulness, activity, realism, goal organization, internal connections, and psychological well-being. Based on Ruff and Kiz's pattern, psychological well-being is composed of six components: purposeful life, positive relationship with others, personal growth, self-acceptance, autonomy, and dominance over environment. Features such as adaptation, happiness, self-reliance, and other positive features show psychological health and well-being (Yeganeh, 2013). As mentioned, life with any kind of chronicle disease and any medical measures can result in serious psychological suffering for patients and families (White, 2001; cited in Bahmani, 2013). Almost all evidence show that cancer in family members leads to serious challenges for other family members (Schneider, 2000). Undoubtedly, when a child has cancer, their parents especially their mothers experience serious difficulties; and a variable which helps mothers confront problems and control stress is stress coping strategy. People use different stress coping strategies. Generally, stress coping strategies refer to cognitive-behavioral efforts for preventing, managing, and reducing stress Gonzales et al, (2001). As Hern and Mitchel stated (2003; cited in Jadidi et al, 2015), stress coping strategies styles are divided into three groups: problem-oriented coping strategies describe methods based on which

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individuals take measures to reduce or eliminate problems. Emotion-oriented coping strategies describe methods based on which individuals focus on themselves and try to reduce unpleasant feelings; and avoidance-oriented coping strategies require cognitive activities and changes, whose goal is to avoid stressful situations. On the other hand, cited in experts, health individuals are those who can control and balance their behaviors when facing social difficulties and stresses. Studies show that normal students (non-depressed) mostly use problem-oriented method; and depressed students mostly use emotion-focused and avoidance-focused style when facing stressful situations. It seems that those with low motivation scores use emotion-oriented strategies, and they experience anxiety and boredom, while those with high motivation scores use cognition-oriented strategies, and they have good general health and do acceptable social activities. On the other hand, using inefficient emotion-oriented coping strategies leads to an increase in symptoms such as anxiety, sleep disorders, disorders in social actions, and depression (Fereiduni Valahjerdi, 2015). Some researchers have stated that women, compared to men, experience more stressful situations (Mc donough and Walterz, 2001). In addition, it has been made clear that women, compared to men, cope with threats with more stress, and they are more exposed to stresses related to roles (Shokri et al, 2008). Results of studies done by Shapiro et al (2010) showed that men mostly use problem-oriented strategies, and women prefer emotion-oriented strategies, gaining social support, emotional experience, and wishful thinking. Additionally, results of this study emphasize the role of coping strategies in expressing psychological well-being. Therefore, for mothers with cancer children, there will be intense stress; as a result, their psychological well-being will be threatened. Hence, it is important to focus on variables which are related to improvement in psychological well-being. Finally, considering the above-mentioned, in this research, we are trying to answer the question, "Is there a relationship between stress coping strategies with life expectancy and psychological well-being in mothers with cancer children?"

Methodology

Method of the present research was quantitative, descriptive (non-experimental), and correlational. Statistical population consisted of mothers with cancer children in Mahak institute, from which 89 individuals were selected as sample size; and they responded to stress coping strategies, life expectancy, and psychological well-being questionnaires. In order to analyze research data, we used descriptive statistics (mean and standard deviation) and inferential statistics (multivariate regression analysis) through SPSS software.

Research Instruments

Andler and Parker's Mental Pressure Coping Strategies Questionnaire (CISS): Andler and Parker designed this questionnaire for the purpose of evaluating individuals' coping strategies in stressful situations: problem-oriented, emotion-oriented, and avoidance-oriented coping strategies. Reliability of this scale was calculated by Andler and Parker, for problem-oriented, emotion-oriented, and avoidance-oriented coping strategies for boys, to be 0.92, 0.82, and 0.85, respectively; it was calculated to be 0.90, 0.85, and 0.82 for girls. This test was for the first time translated, normalized, and used by Doctor Akbarzadeh in Iran for examining mental pressure coping strategies in Tehran's adolescents in the 60s. Additionally, in several studies such as Tabatabayi (1998) and Ghahri (2000), reliability of this test has been approved (cited in Bahadori and Khaeir, 2012). In addition, reliability coefficient of this scale in Bahadori and Khaeir's research (2012) was calculated to be 0.67, 0.71, and 0.79 for problem-oriented, emotion-oriented, and avoidance-oriented coping strategies, respectively.

Life Expectancy Questionnaire: Miller's hope questionnaire is a diagnostic test, including 48 aspects of hope and insolvency, in which mentioned materials are based on obvious and latent behavioral representations in hopeful or hopeless individuals. For each aspect which represents a behavioral sign, there are phrases as follows: I totally disagree=1, I disagree= 2, I'm neutral= 3, I agree= 4, and I totally agree=5. In a research on a group of women with breast cancer, Darvishi (2009; cited in Garavandi et al, 2014) calculated the reliability of this questionnaire to be 0.90, 0.89, and $r=0.079$, using Cronbach's alpha method.

Psychological Well-Being Questionnaire: This questionnaire was designed and normalized in Iran's society by Tabasi (2004), through native features of Iran's society and a combination of psychological well-being and mental health, including 6 subscales and a total score. This questionnaire has 77 questions. Internal consistency of this questionnaire was measured using Cronbach's alpha method; it was reported to be 0.94 in the whole scale, and to be between 0.62 and 0.90 in subscales. In addition, retest method has shown that reliability of the whole test is 0.76, and reliability of subscales is between 0.67 and 0.73 (Tabasi, 2004; cited in Biniaz, 2008).

Findings

In this section, before focusing on research hypotheses, descriptive indexes of research variables have been given in table 1.

Table 1: Mean and standard deviation of stress coping strategies, life expectancy, and psychological well-being

Variables	Mean	Standard Deviation
Problem-Oriented Coping	3.22	0.41
Emotion-Oriented Coping	3.25	0.44
Avoidance-Oriented Coping	3.58	0.61
Life Expectancy	2.45	0.42
Purposeful Life	3.24	0.43
Positive Relationship With Others	3.31	0.48
Personal Growth	3.22	0.41
Self-Acceptance	3.35	0.47
Autonomy	3.25	0.44
Dominance Over Environment	3.29	0.47
Total Psychological Well-Being	3.20	0.46

The data presented in the above table show that stress coping strategies are in an era of 3.22 to 3.58. This indicates that respondents of this research have not exhibited an unfavorable condition in this section; and generally, scores obtained for mean values of stress coping strategies are greater than a medium value. Results given in the above table show that life expectancy has mean of 2.45, and this refers to the fact that respondents' life expectancy has a score of lower than medium, i.e. their life expectancy is not high. In addition, connected to psychological well-being, results show that statistical population of this research has mean values from 3.22 to 3.35.

First hypothesis: Stress coping strategies play an important role in prediction of life expectancy in mothers with cancer children.

Table 2: Summary of regression test for predicting life expectancy based on stress coping strategies

Model	Predictive Variables	R	R ²	Adjusted Correlation	Sig
1	Stress Coping Strategies	0.496	0.246	0.225	0.001

Based on the data presented in table 2, the correlation between stress coping strategies and life expectancy was calculated to be 0.496. This means that stress coping strategies include: avoidance-oriented strategies, emotion-oriented strategies, and problem-oriented strategies, which predict 24.6 percent of life expectancy changes in mothers with cancer children ($R^2 = 0.246$).

Table 3: Stress Coping Strategies Coefficients in Predicting Life Expectancy

Variables entering the model	model	B	SE	(Beta)	T	Sig
	1. Intercept	28.8	9.60		11.4	0.001
Avoidance	Variable Coefficient	0.199	0.85	0.279	3.9	0.001
Problem-Oriented	Variable Coefficient	0.577	0.095	0.422	6.2	0.001
Emotion-Oriented	Variable Coefficient	0.227	0.092	0.112	3.17	0.001

Figures taken from the above table show that the coefficients of avoidance-oriented, problem-oriented, and emotion-oriented coping strategies are in significance level of 0.01 in prediction of life expectancy. In other words, stress coping strategies are able to significantly predict life expectancy in mothers with cancer children. It must be noted that problem-oriented coping strategy exhibits the highest coefficient in prediction of life expectancy.

Second hypothesis: Stress coping strategies play a role in predicting psychological well-being in mothers with cancer children.

Table 4: Summary of regression test for predicting psychological well-being based on stress coping strategies

Model	Predictive Variables	R	R ²	Adjusted Correlation	Sig
1	Stress Coping Strategies	0.443	0.196	0.150	0.001

Based on the data given in table 4, the correlation between stress coping strategies and psychological well-being was calculated to be 0.443. This means that stress coping strategies include: avoidance-oriented strategies, problem-oriented strategies, and emotion-oriented strategies, which expressed almost 19.6 percent of psychological well-being changes in mothers with cancer children ($R^2 = 0.196$).

Table 5: Stress coping strategies coefficients in predicting psychological well-being

Variables entering the model	model	B	SE	(Beta)	T	Sig
	1. Intercept	27.2	8.78		10.85	0.001

Avoidance	Variable Coefficient	0.193	0.79	0.264	3.4	0.001
Problem-Oriented	Variable Coefficient	0.561	0.089	0.411	5.7	0.001
Emotion-Oriented	Variable Coefficient	0.203	0.084	0.103	3.12	0.001

Figures presented in the above table indicate that coefficients of variables such as avoidance-oriented, emotion-oriented, and problem-oriented coping strategies are in a 0.01 significance level in the prediction of psychological well-being. It must be noted that problem-oriented coping strategy has the highest coefficient in predicting psychological well-being.

Discussion and Conclusion

The present study was aimed to examine the role of stress coping strategies in predicting life expectancy and psychological well-being in mothers with cancer children. Results obtained from the examination of hypotheses showed that there is a significant relationship between stress coping strategies and life expectancy and psychological well-being in mothers with cancer children; and stress coping strategies can play a significant role in predicting life expectancy and psychological well-being in mothers with cancer children. Results obtained from this research were in congruence with results obtained from studies done by Alizadeh et al (2013), Ghazanfari and Ghadampour (2008), Snyder (1995), Wells (2005), and Schneider et al (2000). When facing cancer, in many cases, families not only experience intense mental problems from loss of loved members, but they also have worries related to treatment and continual presence in hospitals, nursing, patient care, fatigue from life disorganization, and taking new responsibilities. When it comes to losing a child, families experience stressful and difficult situations. Cancer can lead to much stress for families. Fears are: fear from death, fear from the unknown, fear from inabilities, and unavoidable limits (Barabadi, 2001). One of the factors which can be helpful in stressful and critical situations such as untreatable diseases is life expectancy. Life expectancy helps patients to physiologically and emotionally tolerate diseases. Hopefulness allows people to overcome stressful situations, and it enables them to consistently try to achieve goals. Those with greater hope make more efforts to achieve their goals; they accomplish their goals with more certainty and they compare them with other harder goals. However, those with little hope are the opposite. Hope is a factor which enriches life, and it enables people to have a view beyond status quo and their problems and pain. From the positive results of hope, we can refer to the significance of life, energy for work, maintaining happiness, maintaining life, confidence, peace and adaptation to conditions and situations in life (Movahedi et al, 2015). In addition, cited in previous studies, those who respond to life stresses with more optimism and flexibility, use constructive coping strategies, and control their life events have better immune system functions, fight diseases more successfully, and have better mental health (Coyne, 2006). Ghazanfari and Ghadampour (2008) concluded that the more individuals use problem-oriented coping strategies, the healthier they become; in contrast, emotion-oriented strategies increase physical signs, anxiety, disorders in social performance, and depression. In other words, individuals' mental health in physical, mental, and social domains is affected by their coping strategies. Emotion-oriented coping strategy reduces mental health, and problem-oriented strategy increases mental health.

In studying stress and its effects, it is said that stress coping strategies are more important than the essence of stress in terms of the type of response to it. If we use more appropriate methods when facing stress, there will be fewer damages. These methods can be used for responsibly fighting problems, gaining others' social and emotional support, emotional considerations, escaping problems, aggression and insouciance, or resorting to useless methods such as drugs (Hasanzadeh, 2009). Additionally, studies have shown that with an increase in psychological well-being, there will be a decrease in anxiety, negative emotions, depression, and psychological signs; and there will be an increase in self-esteem, optimism, and positive emotions (Ahmadvand et al., 2012). In other words, it can be said that stress coping strategies can play a role in predicting psychological well-being, while any increase in psychological well-being can reduce stress. Samoee and Ghasemipour (2012) have shown that there is a positive relationship between respondents' problem-oriented coping strategy and psychological well-being, and that there is a negative relationship between emotion-oriented coping strategy and psychological well-being. Therefore, considering the findings of this study, it can be said that for mothers with cancer children, who have intense stress, using efficient coping strategies such as problem-oriented coping strategy helps to increase life expectancy and psychological well-being. Hence, it is possible to raise life expectancy and psychological well-being in mothers with cancer children by teaching efficient stress coping strategies.

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