Evaluate the Effectiveness of Hope Therapy on Improving Resilience of Patients with Blood Cancer

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Abstract
This study aims to evaluate the effectiveness of hope therapy on improving resilience of patients with blood cancer. Blood cancer was performed in 2015. This survey was quasi-experimental. Statistical population contained all patients with blood cancer in Shiraz city. Statistical sample consisted of control and experimental groups with 15 people in each group. Connor-Davidson resilience questionnaire and hope therapy training package were used for collecting of information. First, resilience of patients with blood cancer was calculated in both control and experimental groups, then experimental group received hope therapy training and control group received no training in this field. After training, level of resilience was again evaluated in both groups. ANCOVA test was used for analytical analyzing of research. The findings suggested that hope therapy could affect the resilience and its dimensions at 99% confidence level. Results indicated that hope therapy is an appropriate index for increasing of resilience of women with blood cancer.

Key words: hope therapy, resilience, blood cancer

Introduction
Cancer, a term that encompasses more than 200 types of neoplastic diseases has an old history, so that malignant diseases have existed before the human advent and their impact has determined not only on animals, but also on plant lives. Today, Cancer is one of the most important health problems in the world (Bijari et al., 2009). Blood cancer is one kind of cancer. Blood cancer or leukemia is progressive and malignant disease for hematopoietic organs in body (Mahmoodabadi, 1378). Some evidence suggests that stress and frustration affect the beginning and progression of cancer, respectively. Then, removing the stress and anxiety by increasing of life expectancy is important in this area. Hope therapy fundamentally focuses on now and future periods, and help the authorities to investigate what is currently in process with looking to future goals (Ebadi et al., 2013). In recent decades, positive-oriented psychology and health psychology have emphasized on increasing of happiness and health and scientific study about the role of personal strength and positive social systems in improvement of optimal health. One of the main parts of positive-oriented psychology is hopefulness (Pasha sharifi, 2006). In the meantime, the model which includes the eradication of symptoms and also is a solution for amplification and induction of capabilities, in addition to treatment of diseases lead to authorities resistant to future hardships and stress factors. So, in several study, beneficial effects of positive structures such as optimism, hopefulness and resilience have confirmed (Alaeddini et al., 1987). Protective factors play an important role in people’s life. On the other hand, popularity of resilience concept and its related research is partly for this reason that this viewpoint focuses on capabilities, capacities, hopefulness and power of person. These protective factors are raised as a shield against the risky behaviors and their consequences (Kordmirza nikuzadeh, 2009). In addition to the normal procedure for the treatment of cancer, hope therapy is a treatment method for those who have recently become aware of their cancer. In recent years, psychologists have been looked at hopefulness as a strong point for treatment, and they believe that hope therapy can help to mental health of people by increasing of morale and strength of resilience. In explaining the relationship between hope and life satisfaction can be said that hope is a positive force that increases the motivation, goals and compatibility (Pisa et al., 1991). Mirhashemi and Najafi (1993) in their research about effect of solution based treatment on resilience and coherence feeling of patients who suffer from multiple sclerosis (MS) concluded that method of solution based treatment can be effective for resilience and coherence feeling of patients with MS. Farhadi and his colleagues (2014) resulted that interventions increase the level of hope in patients. So to enhance the quality of patients life with cancer, it is appropriate that providing of educational services and hope promoting programs with suitable methods such as problem solving based learning and active participation of patient in discussion process are done with a codified planning. A research on evaluating of resilience training effect on mental health of addicted people was done in Tooska center (2014), Tehran and following results were obtained: resilience training has an
important and determining role on improving the mental health of addicted people. This means that resilience training can increase the mental health of addicted people. Results of Ebadi et al (2013) with consulting approach have been effective on enhance of hope level in patients with cancer. Rasuli and his colleagues in their study on "influence of group hope therapy on quality of patient's life with Multiple sclerosis" represented that quality life of intervention group compared with control had a significant difference after treatment sessions. This indicates that hope therapy can improve the quality of patient's life with Multiple sclerosis. So, applying of this therapeutic approach in patients with Multiple sclerosis other chronic diseases is recommended. The result of a research on "evaluating the effectiveness of hope therapy based group training on increasing of hope and psychological well-being" showed that group hope therapy can lead to increasing of hope and well-being in tested group. Group hope therapy led to an increase in level of hope and psychological well-being of students (Movahedi et al., 2013). Ghorbani (2012) in his study on "evaluating of effectiveness of group hope therapy on increasing of hope level in women with cancer" showed that hope based group therapy approach significantly increases the life expectancy in women with cancer. Dabiri and Kakui (2011) in their research on evaluating of effectiveness of rational emotive behavior therapy on increasing of resilience and mental health of women with breast cancer have suggested that effect of rational emotive behavior therapy is significant on increasing of resilience and its components. Wei-Wen et al (2015) examined the mediating role of resilience on quality of life and cancer symptom distress in teenager patients with cancer. Statistical results of the Pearson correlation coefficient indicate the significant relationship between cancer symptoms and quality of life and resilience. Also, regression analysis confirmed the mediating role of resilience in association between quality of life and cancer symptoms distress. On the other hand, hopeful people instead of focus on unpleasant events will gain experience and apply them to purse future goals (Kavradim, Ozer, Bozkuk, 2013). According to what mentioned before, they represent more commitment to mental health, life satisfaction and adaptability in dealing with a difficult disease and trying to receive help from multiple source of supports and thereby show greater resilience. The results of Hou, Soldu and Monderz (2013) and Achenbaum (2014) studies on patients with malignant disorders showed that belief and expectation as placebos can have potential positive effects on the central nervous system. For this reason, patients who are hoping for improvement and healthy, because of the positive belief and expectation to outcome of treatment have improved faster. In confirmation of these findings, researchers such as Story, Joseph, Luthanz, Barbotu and Buard (2013) have considered to hope as a placebo in treatment of mental and physical diseases and expressed that hope can lead to positive changes in human body that not only improve the physical health of people with cancer, but also decrease the mental stress, distress and anxiety of those patients. Results of Ishibashi et al (2010) research suggested that a proper understanding of individual and cultural differences as well as social support from family, friends and relatives are effective factors on resilience of patients with cancer during treatment period. Emotional factors can be predictive of positive events in the future and thus increase the psychological health. Research findings have shown that people with higher level of hope represent more self-esteem and commitment to activities that lead to more healthy.

**Research hypotheses**

- Hope therapy is effective in the increase of resilience of patients with blood cancer.
- Hope therapy is effective in the increase of personal consistency merit of patients with blood cancer.
- Hope therapy is effective in the increase of trust to instincts and tolerance of negative emotions in patients with blood cancer.
- Hope therapy is effective in the increase of positive adaption of patients with blood cancer to occurred changes.
- Hope therapy is effective in the increase of control level of patients with blood cancer.
- Hope therapy is effective in the increase of spirituality of patients with blood cancer.

**Research method**

The present study is an applied research. This study has a quasi-experimental design and consists of pre-test and post-test phases with control group. In this research with an emphasis on Snyder theory (2000), hope therapy training and resilience have evaluated as independent and dependent variables, respectively. Statistical population of present study included all patients with blood cancer who referred to treatment centers of Shiraz city in the first half of 2015. For each group of samples, 15 people were selected based on Cohen table. Statistical samples were selected in proposed manner.

**Data collection tools**

In present study first, Connor-Davidson resilience questionnaire (SIR - DC) was used. In this scale, minimum and maximum score are 0 and 100 respectively. Its cut off point for normal people is 80.4. Correlation coefficients were between 0.41 and 0.64. Reliability of this test was obtained 0.87 by
using of Cronbach’s alpha coefficient. In this study reliability of questionnaire was estimated 0.75 by calculation of Cronbach’s alpha coefficient.

**The structure of training sessions**

In general, the structure of meetings and the objectives of the training program were introduced in the first session. In the second session explanation of hope promoting process and necessity of it and its effect on well-being were discussed. While in the first two session tried to establish a therapeutic relationship with any of clients, and processes and dynamics of group to be considered. In third session, each of clients was asked to tell their own life story in group. In the fourth session, these stories were explained and reformed based on objectives, operating factors and pathways.In the fifth session, members were asked to provide a list of current events and important dimensions of their lives and determine the importance of each of them. In sixth session, the characteristics of good targets in each areas of life were encouraged.In the seventh session, the characteristics of the appropriate pathways were raised and they were asked to find appropriate solutions to achieve determined targets, then they were instructed to break down the pathways with a series of small steps and set substitute pathways. In the eighth session, solutions for establishing and maintaining the operating factors were raised and eventually they trained to be a hope therapist.

**Data analysis**

In present study, analysis of findings was conducted in to section. In the first section, collected data were described. Mean and standard deviation were used in analysis of descriptive statistics. Also, covariance analysis was used.

**The Findings of the Research**

To evaluate the effect of experimental intervention, multivariate analysis of covariance (MANCOVA) was conducted on the scores of dependent variables. Table 1 shows the results of multivariate analysis of covariance on the scores of resilience and its dimensions.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Test</th>
<th>Value</th>
<th>F</th>
<th>df hypothesis</th>
<th>df error</th>
<th>Significant level</th>
<th>Effect size</th>
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<tbody>
<tr>
<td>Processing</td>
<td>Pillai’s Trace</td>
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<td>Wilks’ Lambda</td>
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<td>Hoteling’s Trace</td>
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<td>Roy’s Largest Root</td>
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</table>

Contents of table 1 show that there is a significant difference between two groups in terms of at least one dimension of resilience. To further explore of this difference, One-Way MANCOVA was done on dependent variables. The results of this analysis are provided in table 2. Table 2 shows the results of One-Way MANCOVA to compare the scores of variables in two different groups.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Dependent variable</th>
<th>Total squares</th>
<th>Degree of freedom</th>
<th>Mean square</th>
<th>F</th>
<th>Significant level</th>
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</thead>
<tbody>
<tr>
<td>Group</td>
<td>Competence and personal integrity</td>
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<td></td>
<td>Trust to instincts and tolerate the negative emotions</td>
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<td></td>
<td>Acceptance of positive emotions</td>
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<td></td>
<td>Control</td>
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<td></td>
<td>Spirituality</td>
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<td></td>
<td>Total (resilience)</td>
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</tbody>
</table>

Contents of table 2 show that the results of one-way analysis of variance on competence and personal integrity, trust to instincts and tolerance of negative emotions, and control are F=95.154 and P = 0.0001, F = 7.725 and P = 0.01 and F =1.61 and P = 0.003 respectively, and acceptance of positive emotions (F= 1.288 and P =0.269) and spirituality (F =1.568 and P = 0.244) are not significant. In total, hope therapy has a significant effect on resilience (F=11.284 and P = 0.003).
Discussion and Conclusion
To explain the results of present study, we can mention to following cases. According to Feldman and Snyder (2005) in recent years, psychologists look at the hope structure as a psychological strong point and believe that this structure can significantly help to creation and develop of the mental health. According to Temane and Wissing (2006) hope has two components, cognitive and emotional. Cognitive component consist of expected events that happening in the future and the emotional component mention that these events might be positive events with desirable consequences. Emotional component can be predictive of positive events in future and thus will enhance the mental health. Research findings have shown that people who had higher level of hope represented more self-esteem (Soenens and Doriz, 2012) and committed to activities that lead to higher health and wellness (Dezutter, Kazalin, wachhultz, Levix, Hacking et al., 2012). Adults, who benefit from a high degree of hope, look at the others as supportive sources and sites that can rely on them (Marques, Peiribero, Lopez, 2011). They also believe that they can adapt to challenges in their lives, experience more happiness and have higher satisfaction at their lives (King, Hicks, Carroll and Delgasio, 2006). They can believe to this internal statement that "I can finish this task; I should not fail and be disappointed". The results of Hou, Soldu and Mendez (2013) and Achenbaum (2012) in case of patients with malignant disorders showed that belief and expectation as placebos could have potential positive effects on the central nervous system. For this reason, patients who hope to improvement and well-being, because of belief and positive expectations of treatment outcome, improved more quickly. To confirm of these findings, some researchers such as Story, Joseph, luthans, Barboto and Board have considered to hope as a placebo in treatment of mental and physical diseases and expressed that hope can cause positive changes in human body that not only improves the physical health of patients with cancer, but also reduces their stress, depression and anxiety. On the other hand, On the other hand, hopeful people instead of focus on unpleasant events will gain experience and apply them to purse future goals (Kavradim, Ozer, Bozkuk, 2013). According to what mentioned before, they represent more commitment to mental health, life satisfaction and adaptability in dealing with a difficult disease and trying to receive help from multiple source of supports and thereby show greater resilience.

Reference


