Effectiveness of Group Interpersonal Therapy on Loneliness, Happiness and Depression of Girl Students of Iran

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ABSTRACT

Aim of present study was determining effect of group interpersonal therapy on loneliness, happiness and depression in girl students. Research society comprised of 789 M.A girl students of Tehran Sharif University who are studying in first semester of 89-90. 26 girl students using random sampling selected as sample size and were assigned to two experimental and control groups. Used tools in this study were loneliness scale questionnaire (2007), Oxford Happiness Inventory (1989OHT) and Beck Depression Inventory (1961). Recent study is of experimental researches that have been done interventional. Study design was pretest – posttest type with control group. For data analysis, covariance analysis (Mancova) and t independent means comparison test was used. Obtained results showed that:
1. Interpersonal therapy reduced loneliness feeling in girl students.
2. Interpersonal therapy increases happiness in girl students.
3. Interpersonal therapy reduces depression in girl students.

KEYWORDS: group interpersonal therapy, loneliness, happiness, depression, girl students

INTRODUCTION

Depression is one of the important predictors of well-being and mental health (Federal Census Collection, 2004). Depression is an emotional state that is determined by intense grief, guilt and worthlessness feeling, withdrawal from others, decreased sleep and appetite and lack of interest in daily activities. Depressed person feels a terrible recession and cannot decide, start up an activity or be interested in something; he immersed in a feeling of incompetence and worthlessness, sometimes cries and may fall to suicide (Darvison and Neale, 1994).

Weiss (1973) knows loneliness as a chronic disease that it is intimately associated with depression. Loneliness is an unpleasant state and it comes when there is a gap between something that a person tends to have and relationships that he has now, (Peplau and Perlman, 1982).

One of the issues that psychologists recently have started to study is happiness, living happy, effective and associated factors (Argyle, 1987, Myers, 1992, and Cheng & Furnham, 2003, quoted by Khanvadehand et al, 2006). Happiness is being in happy mood or other positive emotions, or being satisfied from the life (Argyle, 2001, Abedi and et al, 2006).

Academic competitions among students for achieve and maintain academic excellence always placed them in a space away from exhilarating stimuli and they are often focused on curriculum activities and attendance in scientific competences. Therefore, to examine depression and loneliness, and happiness amount is important to investigate these students.O'Hara, Scott, Gorman and Wenzel (2000) in a research showed that women who had received interpersonal therapy (IPT) their depression were reduced and their compatibility have been better.

Tang, Jou, Ko, Huang and yen (2009) in a research were also used IPT for a group of adolescents who were diagnosed with depression and had suicidal behaviors. After this intervention, they concluded that IPT is effectiveness treatment for reducing severe depression and also reduces associated suicidal thoughts, anxiety and frustration of depressed youth.De Mello, De Jesus, Mari, Bacaltchuk, Verdeli and Neugebauer (2005) in a research

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showed that drug combination therapy together with IPT in depressed people is better than consumption drug treatment. DiTommaso and et al (1979) found that interpersonal therapy and effectiveness medication has scheduled more than supportive psychotherapy. Soleimani (2006) in examining IPT effect and short-term group in reducing depression symptoms in students and this treatment effect on attribution style and dysfunctional attitudes showed depression symptoms and dysfunctional attitudes had a significant decrease in students and attribution style of students was not improved.

Moradi and et al (2007) in examining effects of interpersonal psychotherapy on depression in depressed adolescents showed that IPT is efficient and effective approach in adolescents. Pamchyzemestani (2008) in investigating effect of group supportive psychotherapy interventions in IPT method for reducing depression symptoms showed by obtained results that group supportive psychotherapy with IPT method reduced significantly depression symptoms in addicted males. Taylor and et al (1999) in study of interpersonal skills teaching in a network of services such as parent behavioral training, behavioral interventions based on class activities, multifaceted family therapy problems can play an important supportive role in reducing criminal and aggressive behaviors.

Given to study aim and research history following hypotheses were tested.

Hypothesis 1: Group interpersonal therapy is effective on reducing loneliness, increasing happiness and reducing depression in depressed girl students.

Hypothesis 1-1: interpersonal therapy reduced loneliness in girl students.

Hypothesis 2-1: interpersonal therapy increases happiness in girl students.

Hypothesis 3-1: interpersonal therapy reduces depression in girl students.

RESEARCH METHOD

Study is of experimental research that has been done interventional. This study population consisted of all graduate girl students in Tehran Sharif University who were studying in the first semester of 89-90 years (789 patients). Among these 100 people that were randomly selected, were given loneliness, happiness and Beck depression questionnaires. 63 questionnaires were completed and collected. After calculating their scores, 26 students who had high loneliness score, and low happiness and depression scores, were selected and were assigned to two experimental and control groups (in each group n = 13).

Research design was pretest – posttest with control group. Group interpersonal therapy carried out in experimental group. To collect information Dehshiri& et al loneliness Scale questionnaires and Lou & Argil Oxford Happiness Index and Beck Depression Inventory were used.

1) Dehshiri and et al Loneliness scale (2007) which its design and items produced in a 5 degrees Likert spectrum "from very high to very low ". This scale contains three subscales: loneliness due to relationship with family, loneliness caused by relationship with friends and emotional symptoms of loneliness. Validity of this scale using Cronbach's alpha is reported about 91%.

2) Lou & Argyle Oxford Happiness List (2010) including 29 items that each item has four options. Khanzadeh and et al in a survey have reported Cronbach's alpha of this questionnaire about 92% (2006).

3) Beck Depression Inventory (1961) was revised again in 1971. This questionnaire is a multidimensional instrument that includes 21 groups of depression symptoms that each group composed of 4-5 items. Every item has 4 options, and shows various degrees from mild to severe depression. Internal consistency coefficients of this questionnaire have been reported between 73% and 92% (Beck, Steer and Garbing, 1988). Also Rajabi, Attari&Haghighi (2001) in their study have been reported 87% for Cronbach's alpha of this questionnaire.

Finally and after gathering information, parametric covariance analysis test (Mancova) and t test was used for independent means comparisons.

Intervention method:
Interpersonal therapy sessions were held during 12 sessions of 90 minutes.

RESEARCH FINDINGS

Descriptive findings
Descriptive findings of this study include mean and standard deviation statistical indexes that are presented in Table 1.
Table 1: Mean and standard deviation

<table>
<thead>
<tr>
<th>Experimental group</th>
<th>test</th>
<th>mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loneliness pre-test</td>
<td>63/76</td>
<td>29/63</td>
<td></td>
</tr>
<tr>
<td>Loneliness post-test</td>
<td>43/61</td>
<td>20/65</td>
<td></td>
</tr>
<tr>
<td>Happiness pre-test</td>
<td>35/92</td>
<td>8/54</td>
<td></td>
</tr>
<tr>
<td>Happiness post-test</td>
<td>46/23</td>
<td>5/79</td>
<td></td>
</tr>
<tr>
<td>Depression pre-test</td>
<td>17/46</td>
<td>5/7</td>
<td></td>
</tr>
<tr>
<td>Depression post-test</td>
<td>8/61</td>
<td>6/35</td>
<td></td>
</tr>
<tr>
<td>Control group</td>
<td>Loneliness pre-test</td>
<td>78/15</td>
<td>11/23</td>
</tr>
<tr>
<td>Loneliness post-test</td>
<td>79/46</td>
<td>10/67</td>
<td></td>
</tr>
<tr>
<td>Happiness pre-test</td>
<td>32/76</td>
<td>5/21</td>
<td></td>
</tr>
<tr>
<td>Happiness post-test</td>
<td>31/61</td>
<td>5/07</td>
<td></td>
</tr>
<tr>
<td>Depression pre-test</td>
<td>22/07</td>
<td>3/27</td>
<td></td>
</tr>
<tr>
<td>Depression post-test</td>
<td>25/15</td>
<td>4/74</td>
<td></td>
</tr>
</tbody>
</table>

B) Findings related to research hypotheses:

This section involves assumptions together with achieved results that are represented below.

First hypothesis: loneliness amount of students who are under (IPT) treatment is different from those who are not under (IPT).

According to Table 1, mean difference of loneliness scores before and after treatment in the experimental group is 15/20 while the difference in the control group is 31/01 score. Since the relationship between variables is linear and there is homogeneity of variance, covariance analysis test is used.

Table 2: covariance analysis test for first hypothesis

<table>
<thead>
<tr>
<th>Groups</th>
<th>indexes</th>
<th>Groups variances (SS)</th>
<th>Freedom degree (df)</th>
<th>Squares means (ms)</th>
<th>Frequency (f)</th>
<th>Meaningful level</th>
<th>Test power</th>
<th>Variance homogeneity</th>
<th>Modified mean</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>dispersion</td>
<td>1070.559</td>
<td>1</td>
<td>1070.559</td>
<td>8.909</td>
<td>0.007</td>
<td>0.9</td>
<td>0.14</td>
<td>61.53</td>
<td>P&lt;0.05</td>
<td></td>
</tr>
<tr>
<td>Groups</td>
<td>4536.021</td>
<td>1</td>
<td>4536.021</td>
<td>37.747</td>
<td>0.0001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>3722.384</td>
<td>1</td>
<td>3722.384</td>
<td>30.976</td>
<td>0.0001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>error</td>
<td>2763.924</td>
<td>23</td>
<td>120.171</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to Table 2, given to homogeneity of $f$ (0/14) calculated (37/747) is significant in P <0/05 level. Thus, according to the data collected and in terms of modified mean, interpersonal therapy reduced loneliness feeling in girl students.

Second hypothesis: happiness amount of students who are under (IPT) is different from those who are not under (IPT).

According to Table 1, mean difference of happiness scores before and after interpersonal treatment in the experimental group is 10/31 score while the difference in the control group is 1/15 score. Since the relationship between variables is linear and there is homogeneity of variance, covariance analysis test is used.

Table 3: covariance analysis test for second hypothesis

<table>
<thead>
<tr>
<th>indexes</th>
<th>Groups variances (SS)</th>
<th>Freedom degree (df)</th>
<th>Squares means (ms)</th>
<th>Frequency (f)</th>
<th>Meaningful level</th>
<th>Test power</th>
<th>Variance homogeneity</th>
<th>Modified mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>dispersion</td>
<td>498.469</td>
<td>1</td>
<td>498.469</td>
<td>26.206</td>
<td>0.0001</td>
<td>0.95</td>
<td>0.09</td>
<td>38.92</td>
</tr>
<tr>
<td>Groups</td>
<td>1060.304</td>
<td>1</td>
<td>1060.304</td>
<td>14.4</td>
<td>0.0001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>273.9</td>
<td>1</td>
<td>273.9</td>
<td>55.744</td>
<td>0.0001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>error</td>
<td>437.485</td>
<td>23</td>
<td>19.021</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

With respect to above table and given to $f$, homogeneity (0/09) and calculated (14/4) is significant in P <0/05 level. Thus, according to collected information, with 0/95 confidence and by modified mean, interpersonal therapy increased happiness in girl students.

Third hypothesis: depression amount of students who are under (IPT) is different from those who are not under (IPT).
According to Table 1, mean difference of depression scores before and after interpersonal treatment in experimental group is 8.85 score while this difference in control group is -3.08 score. Since relationship between variables is not linear, a test is used for comparison of independent means with differential scores.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Freedom degree</th>
<th>T</th>
<th>Meaningful level</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>experimental</td>
<td>24</td>
<td>5.902</td>
<td>0.0001</td>
<td>≤0.05</td>
</tr>
<tr>
<td>control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As above table shows, calculated t(5.902) is significant in meaningful level of P <0.05. In other words, according to data collected with 0.95 interpersonal therapy reduced depression in girl students.

**DISCUSSION**

Present study was designed to answer this research question: Is group (IPT) teaching effective on loneliness, happiness and depression in depressed girl students? After performing interventional program group (IPT) training on 26 girl students who had DSM IV diagnostic criteria in 12 sessions and conducting considered questionnaires in pre-test and post-test, was observed that obtained findings in this study showed significant difference between experimental group and control group scores.

First, it is focused on main research hypothesis: 
"(IPT) group is effective on loneliness, happiness and depression of girl students."

Based on obtained results and F calculated, is determined that group (IPT) training is effective on decreased loneliness, increased happiness and reduced depression in girl students.

**First sub-hypothesis:**
Loneliness level of students who are under (IPT) is different from those who are not under (IPT). Results suggest that interpersonal therapy of loneliness have significant positive impact on loneliness feeling of students. This result is coordinated and consistent to Karen Stroiney (2005), Menning (1999), Erikson (1963), Mijuskovic (1988), and Brenman (1982) research.

**Second sub-hypothesis:**
Happiness amount of students who are under (IPT) is different from those who are not under (IPT). Results indicate that interpersonal therapy was effective in raising students’ happiness level. This result is consistent and coordinated with Lewinsohn and et al (1985), Sergin and Flora (2000), Jones (1994), Cohen (2005), Reblin and Uchino (2008) research.

**Third sub-hypothesis:**
Depression amount of Students who are under (IPT) is different from those who are not under (IPT). Results suggest that group interpersonal therapy has been effective in reducing depression in girl students. This result is consistent and coordinated to Allahverdi (2004), Soleimani (2006), Moradi’s (2007), O’Hara, Scott, Gorman and Wenzel (2000), Spinelli and Endicott (2003), Chan (2005), Koszycki, Lafontaine, Frasure-Smith, Swenson, Lesperance (2004), Miller (2008) research.

**REFERENCES**