EFFECTIVENESS OF GROUP TRAINING BASED ON TRANSACTIONAL ANALYSIS IN REDUCING LONELINESS GIRL STUDENTS OF HIGH SCHOOL FIRST GRADE IN RASHT

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ABSTRACT

The main objective of this research is to investigate the effectiveness of group training, based on transactional analysis affecting the loneliness the girl students of grade one in high school, in the city of Rasht. This experimental research was carried out on 40 individuals from those students who were rated “high” in loneliness test (UCLA). This sample was selected through the phased random selection and it was divided in two equal groups (experimental and control group), randomly. Subsequently, the group training program was represented to the experiment group, after the method of transactional analysis based on the assembly of concepts, within 8 ninety-minute sessions for each week, and during this period, no interference was imposed on the control group. Then, after the end of training, the loneliness –test (post-test) was applied to both experiment and control groups, simultaneously and under the identical circumstances. The obtained information from the pre-test and post-test were analyzed using the statistical test for the independent group ANCOVA. The additional obtained results suggested that there was a significant difference between the experimental and control groups (P=0.0001). In other words, the experimental interference (group training based on the transactional analysis) has given rise to reduce loneliness and its components in experimental group.

KEYWORDS: Transactional Analysis, Loneliness, Girl Students

Loneliness is a universal issue that every one – more or less- has experienced along their life. Existentialists believe that human is originally lonely; because all of the attempts of human for communication such as applying verbal, nonverbal and artistic means finally come to an end and we are all lonely in the end of the day (Gayford – Smith and Bronnell, 2003).

Many people from different cultures, races, social classes, ages and eras experience loneliness. However, not much attention has been paid to this issue in psychological literature (Berguno, Lero, Mcynish and Sheykh, 2004). Loneliness can be considered as an apparent failure and weakness in interpersonal relationships that results in dissatisfaction with social relations (Ponzietti and Hopmeyer, 1999). Asher and Paquette (2003) described loneliness as the cognitive awareness of an individual of his weakness in personal and social relations that causes a feeling of sadness, emptiness or longing. Parkhurst and Hopmeyer (1999) defined loneliness as a sad sense of isolation. Loneliness in teenagers indicate failure and weakness in interpersonal relationships that results in dissatisfaction with social relations with other people (Don, Don and Bidoza, 2007).

Elhageen (2004) described loneliness as a loathsome, distressing and unpleasant experience that makes the teenager feel humiliated and experience uncomfortable emotional states.

Blai (1989, cited by Dill and Anderson, 1998) defined loneliness based on three components: cognitive, affective and behavioral. Jones et al. (1990) reported that there is a positive correlation between loneliness and shame ranging from 0.4 to 0.51. Moreover, there is a correlation between loneliness and high anxiety especially from a social perspective. Moore and Schultz (1983) revealed that there is a significant positive relationship between loneliness and state and trait anxiety.

Studies indicate that many emotional and psychological problems can be observed among teenagers suffering from loneliness. The following experiences have been reported among teenagers suffering from loneliness: tension and anxiety, risky behaviors like smoking cigarettes and drug use (Page, 1990), dropping out of school, depression, alcoholism (Asher and Paquette, 2003), shyness, low assertiveness (Ponzietti and Hopmeyer, 1999), low self-efficacy, low self-confidence and low self-esteem (Galansky and Kalantzi-Azizi, 1999).

Petersen describes adolescence as a phase of life beginning with biological changes and ending in social changes. Adolescence is a phase of life in which many changes occur in most of the biological, cognitive,
psychological, and social processes and the desire for intimate relationships and self-disclosure increases. Moreover, a feeling of discontinuity leads to loneliness and in some people, it is accompanied by other significant adjustment problems such as substance abuse, delinquency, depression and suicide (Lorner and Spiner, 1980; Golfund and Teti, 1990; Henwood and Solana, 1994; Culp and Clayman, 1995 cited by Aghamohammadian and Hosseini, 2005).

According to psychoanalytic literature, loneliness originates from childhood needs; A period during which a child's first needs for communication fail (Klein, 1990 cited by Berguno et al., 2004). Other researchers believe that many factors play a role in causing loneliness. These factors can be divided into two categories: extra and intra-school factors. Extra-school factors include: family problems, transferring to a new school, losing a parent or love issues. Intra-school factors include: being rejected by peers due to weak social skills, having trouble finding friends. In addition, some personality traits such as shyness, anxiety and low self-esteem might cause loneliness (Kuchenderfer and Laud, 1996).

Currently, the most important topic about loneliness is prevention and treatment by social skill training (Center of Mathematical and Experimental Psychology Research.

There has been a considerable growth in the studies concerning loneliness in recent years, which is caused by the increase of this phenomenon in communities, researchers' interest in studying human relations and the creation of their respective psychometric scales (Peplay and Perlman, 1982).

In summary, psychoanalytic literature attributes loneliness to unfulfilled communication needs in childhood, while behavioral approaches regard weak social skills as the main reason of loneliness.

Transactional analysis is capable of combining psychoanalytic and behavioral approaches. Therefore, it can be effective in preventing the damages caused by this psychological phenomenon during adulthood. It seems like transactional analysis answers this need because it is a means for self-awareness and learning to communicate with others. It is considered as a method for determining the problems of life (Shafiabadi and Naseri, 1380).

The role of environment and social relation is very important in transactional analysis. However, in the end, people are responsible for their own life and behavior. They should accept this responsibility and consider their own role in their life more than other factors. Transactional analysis pays special attention to an individual's internal problems and relations and people's communication with each other. It believes that if people have healthy, intimate and honest relationships with each other and replace their destructive, negative and humiliating relations with them, they will manage to reduce from other people's and their own stresses and enjoy life better. While being simple, transactional analysis has the capability to coordinate people's complicated, confused and distressed thoughts and emotions so that they can obtain a better understanding of themselves through differentiating and organizing their thoughts and emotions. Therefore, it enables people to analyze and solve their problems during their psychological crises by helping them adopt healthy and constructive behaviors by understanding their weaknesses and strengths.

The original transactional analysis theory is based on personality states. Eric Berne defined these personality states in three groups: "parent", "adult" and "child" that includes a system of interconnected thinking, feeling and behaving. In second phase of the theory's evolution, transactional analysis, i.e. the relationship between people, was considered. It was classified and presented based on the simultaneous psychological and social reactions and the exchange of mutual relationships.

During the third phase, the mind games between people were discovered through observing hidden and two-layered relations in mutual relationships. The result predictions of these games were defined and specified.

The fourth phase of transactional analysis theory's evolution and growth consists of analyzing the biography or scenario of life that studies the similar mind games that people play repeatedly. This general outline defines people's lifestyle and the scenario structure of their lives.

Transactional analysis can help us understand the problems that cause imbalance in personality structure of the people and their communication with others and repeating mind games and life scenario, and discover and provide solutions for changing and treating them.
The main application of transactional analysis in people is providing behavioral, emotional and intellectual understanding, which are three important aspects of the personality. In order to understand the potential personality and discover the actual position of oneself, it is completely possible to change the personality structure with the help of transactional analysis.

In transactional analysis, every behavioral or emotional change begins with logical insight, which is an understanding of an individual's weaknesses, strengths, thought and emotion. The emotional understanding for the final change is achieved with personality states after logically accepting it. (Alton, 2007)

Transactional analysis is a theory on personality. It is an organized psychotherapy method for personal growth and change (Jones and Stuart, 1976, Dadgostar Translation, 2004). Transactional analysis helps the patients to change their immature and inappropriate ways of communicating with others (Sdorow, 1998).

In a study titled "Application of Transactional Analysis in Psychological and Clinical Situations", Kuzuko (2006) concluded that patients' communication skills could be improved in a short time by teaching them about interactive communication. Moreover, it can help with the efficiency of family members in life situations regarding the family.

According to the theoretical topics that were discussed, no research could be found in transactional analysis literature studying the impact of TA-based group training on decreasing the feeling of loneliness. Therefore, the following hypothesis was introduced in order to study the impact of transactional analysis group training and comprehensive prevention on the feeling of loneliness in teenagers:

TA-based group training decreases the feeling of loneliness in female students.

METHODS

Experimental pre-test and post-test designs with control group were used in this research.

Statistical Population, Sample Space and Sampling Method

This research included all high school freshman female students in Rasht during 2010-2011 academic years. Sample space consisted of 40 female students that were selected using multi-stage random sampling. First, one of the two school districts in Rasht (district 1) was selected randomly. Then, two high schools were selected randomly among the public high schools of district 1. Loneliness test was conducted among freshman students of these schools. Among students who scored higher than the average in loneliness test, 20 were assigned to experimental group and 20 were assigned to control group, randomly.

RESEARCH TOOLS

Revised University of California Los Angeles (UCLA) Loneliness Scale: This scale was devised by Russel D. Peplau and Carolyn E. Cutrona (1980). It has 20 items and the total score is obtained by adding the score of all items. This revised scale was created based on the original UCLA scale. In the original UCLA scale, there was a probability of response bias, therefore, the aforementioned experts decided to include some revisions in the new scale. Reports and evidence point at the reliability of this assessment tool.

The scoring method of this scale consists of descriptive statements. Each statement has 4 choices and the test-taker must choose one of them. They are "never", "rarely", "sometimes" and "often". In this scale, some items are reverse scored. The minimum and maximum scores the test-taker can obtain are 20 and 80, respectively. This scale was translated by Shekarkan and Mirdarikvand (1998) and it was applied after an initial run and revision. Russel reported that the reliability of the test was 0.89 using retesting method. In 1998, Peplau and Fergusen reported that the reliability of this test was 0.78 using retesting method. In a study by Mirdarikvand (1999), the reported correlation between the new and original scale was 0.91, which indicates that the new scale is very reliable. In this research, Cronbach's alpha was used to evaluate the reliability of the scale and the result was 0.81.

In order to measure the validity of this test, Belcher and Ortega correlated the scores of loneliness with depression ($r=0.41$) and anxiety ($r=0.35$) and obtained significant coefficients. By correlating the scores of the loneliness scale with depression, Jones calculated the validity coefficient of this test as 0.27, which is statistically significant.

In this research, Cronbach's alpha and bisecting methods were applied to determine the reliability of the
UCLA loneliness questionnaire. The result was 0.93 and 0.92 for the complete questionnaire, respectively, indicating that the reliability coefficients were acceptable.

The intervention method of transactional analysis group training in this project included a course containing eight 90-minute sessions (one session per week) with a predefined schedule including principles and basic concepts of transactional theory from credible sources using Berne's book (Berne, 1964, Fashi Translation, 2005) that was presented to the experimental group.

**The sessions were titled as follows**

First session, introduction: Learners' acquaintance with each other, the group rules and the structural definition goals. Initial functional analysis and homework assignment.

Second session, personality pathology: Introducing the problems (structural) to the learner and (functional) personality (rejection), (contamination) and confusion, stabilizing my moods and homework assignment.

Third session, transactional analysis: Introducing exchange and transaction to the learner, complementary and crossed transactions and their types. Homework assignment.

Fourth session, reinforcing adult ego-state, controlling parent ego-state: acquainting the learners with the necessity of reinforcing the adult ego-state and its methods and transference ways. Homework assignment.

Fifth session, stroke and its types: Introducing verbal and non-verbal, positive and negative, conditional and unconditional, good and bad strokes to the learner, ways of receiving stroke, stroking the ego, homework assignment.

Sixth session, ways of time structuring: Introducing time structuring and its necessity, introducing drama triangle and suggesting solutions for breaking mind games, homework assignment.

Seventh session, life script and life positions: Introducing the nature of life script, various winner, loser and non-winner scripts, the necessity of adopting a healthy life position and its validity, homework assignment.

Eighth session, introducing integrated adult: Providing explanations and solutions for staying healthy and increasing intimacy, pre-testing, summary and appreciating the learners' participation in the course.

**FINDINGS**

The following statistical methods are used for data analysis in this research:

1. Descriptive statistical methods such as frequency, percentage, mean, standard deviation.
2. Levene's test (To assess the equality assumption of variable variances)
3. Kolmogorov-Smirnov test (To assess the normality assumption of the score distribution of the population)
4. One-way analysis of covariance (ANCOVA): In covariance analysis, confounding variables are controlled. That is, their effect is excluded from test scores. Then, the averages of the remaining scores of all research groups are compared with each other. In hypothesis testing of this research, the confounding variable is controlled during post-test. That is, its effect is excluded from post-test scores. Then, the averages of the remaining scores of experimental and control groups are compared with each other.
5. Cronbach's alpha and bisection for measuring reliability coefficients

The 16th version of SPSS1 software application was used for data analysis. The significance level is determined as $\alpha=0.05$. The statistical analysis report will be presented in the following three sections.

**Descriptive Findings**

Descriptive findings of this research include statistical measures such as mean, standard deviation and sample count for all variables of this research. They are displayed in figure 4-1.

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1 Statistical Package for Social Science Ver 16
Table 4-1: Mean and Standard Deviation of Loneliness Scores of Experimental and Control Groups in Pre-test and Post-test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Stage</th>
<th>Statistican Indicator</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Sample Count</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loneliness</td>
<td>Pre-test</td>
<td>Experimental</td>
<td>55.35</td>
<td>12.85</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Pre-test</td>
<td>Control</td>
<td>58.50</td>
<td>6.49</td>
<td>20</td>
</tr>
<tr>
<td>Loneliness</td>
<td>Post-test</td>
<td>Experimental</td>
<td>35.40</td>
<td>9.48</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>Control</td>
<td>59.30</td>
<td>6.40</td>
<td>20</td>
</tr>
</tbody>
</table>

According to table 4-1, for experimental and control groups in pre-test, the mean and standard deviation of loneliness are 55.35 and 12.85, and 58.50 and 6.49, respectively. For experimental and control groups in post-test, the mean and standard deviation of loneliness are 35.40 and 9.48, and 59.30 and 6.40, respectively.

B) Findings on Research Hypotheses

This research includes the following hypotheses. This section presents each hypothesis along its analysis results. Before verifying hypotheses, Levene's test was used to assess the equality assumption of research variable variances. Its results are displayed in table 4-2. Moreover, the results of Kolmogorov-Smirnov test for assessing the normality assumption of the loneliness score distribution of the population are presented in table 4-3.

Table 4-3: Kolmogorov-Smirnov Test Results Regarding the Normality Assumption of the Loneliness Score Distribution

<table>
<thead>
<tr>
<th>Normality of Score Distribution</th>
<th>Group</th>
<th>Kolmogorov-Smirnov</th>
<th>Group</th>
<th>Kolmogorov-Smirnov</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Statistic s</td>
<td>Degree of Freedom</td>
<td>Significance</td>
</tr>
<tr>
<td>Loneliness</td>
<td>Experimental</td>
<td>0.185</td>
<td>20</td>
<td>0.072</td>
</tr>
</tbody>
</table>

According to table 4-3, the null hypothesis for normality of score distribution of both groups is verified for the loneliness variable. That is, the normality assumption of pre-test score distributions of experimental and control groups is verified.

Research Hypothesis: TA-based group training has an impact on reducing the feeling of loneliness in the female students.
According to table 4-4, there is a significant difference between female students in the experimental and control groups regarding loneliness (F=81.70 and P<0.0001). Therefore, the research hypothesis is verified. In other words, according to the average loneliness of female students in the experimental group compared to the control group, TA-based group training has reduced the feeling of loneliness in the experimental group. The impact or difference level is 0.68, that is, 68% of the individual differences in post-test loneliness scores are related to the impact of TA-based group training (group membership). Statistical power is 1, which means that second-type error could not exist.

![Figure 4-2: Comparing the Pre-test and Post-test Life Expectancy Scores of the Experimental and Control Group Retirees](image)

**DISCUSSION**

As it was discussed earlier, no research could be found in the literature studying the impact of transactional analysis on decreasing the feeling of loneliness. In accordance with the findings, it seems that we can attribute the impact of transactional analysis on reducing the feeling of loneliness in teenagers to the following reasons:

Mathematical and Experimental Psychology Research Center (2006) describes life skill training as the most important loneliness prevention and treatment method in children. On the other hand, the findings of this research are consistent with the results of researchers such as Elhagin (2004), Henwood and Solano (1994). In their research, Henwood and Solano revealed that there is a significant relationship between children's loneliness and weak communication strategies and negative attitude toward people.

In a study titled "Application of Transactional Analysis in Psychological and Clinical Situations", Kuzuko (2006) concluded that patients' communication skills could be improved in a short time by teaching them about interactive communication. Moreover, it can help with the efficiency of family members in life situations regarding the family.

Corey (1994) believes that transactional analysis is an interactive treatment method that emphasizes cognitive, intellectual and behavior aspects in treatment process and aims to increase people's knowledge and ability in decision-making and changing the course of their life.

In transactional analysis, it is assumed that if people learn about their various ego-states, they can differentiate between the sources of their thoughts, identify the type of their emotions, understand successful
behavioral patterns, realize their internal conflicts and similarities and have more freedom of choice in the problems and situations they face during their lives. (Shafi'abadi and Naseri, 2001)

Jones et al. (1990) believe that transactional analysis group training is a safe and supportive space that allows patients' to discover the subjects and concepts of the ego. Studying the internal subjects and concepts of the ego results in insight, self-awareness, breaking resistances and finally treating the symptoms. This process led to a reduction in students' feeling of loneliness in the current study, as well.

In transactional analysis, deeper and broader internal experience can improve interpersonal communication skills considerably. Many of the psychologists and experts attribute loneliness to lack of interpersonal communication skills. The feeling of loneliness decreases in the students by improving these skills.

Destroying the patient's intellectual structure and framework in order to establish new relationships in the group has considerable impact on improving the students' social relations. Therefore, lack of social skills and their failure are rectified in patients suffering from loneliness during the process of transactional analysis training.

Nowadays, using the applied methods and the new language for psychology, the experts of transactional analysis can claim that the domain of transactional analysis includes social and educational sciences, human resource management, organizational structures, psychoanalysis and group therapy. Therefore, the dynamism of transactional analysis theory differentiates it from other approaches.

In summary, it can be acknowledged that transactional analysis can reduce the feeling of loneliness due to applying techniques such as increasing social and group interactions and developing interpersonal experiences. It seems that some of the reasons that improve and change the symptoms are as follows: changing cognitive insight, consciousness levels, social skill training, deeper and broader personal experience, understanding the weaknesses and strengths of oneself and creating emotional and cognitive integration.

The limitations of this research are inclusion of just female students in the research sample, insufficient domestic studies and lack of access to research findings in the context under study, not studying the results in long-term, no educational sessions for parents and family training and applying only one scale to evaluate loneliness. We hope that the generality and quality of the information are improved by removing the aforementioned constraints in the next studies.

**SUGGESTIONS**

According to the findings of this research, it is suggested that the education officials and everyone involved in training and educating the students consider the following notes.

It is suggested that all organizations and cultural and social institutions increase the knowledge level of people and their skill in confronting loneliness by arranging short-term training courses and providing books and leaflets.

In addition to these organizations, institutions involved in training children and teenagers can utilize the findings of this research in order to decrease undesirable emotions and behaviors in the children and teenagers, and providing favorable conditions in the family and society.

Mass media can provide transactional analysis as a public education program to increase the knowledge level of the people.

According to the importance of transactional analysis training as a practical scientific approach, we hope to improve scientific, technological and social developments through problem solving and research.

**REFERENCES**


