# **Original Research**

# A Study of Life Skills Training To Improve the Emotional Intelligence of Abused and Homeless Children in Tehran

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#### **Abstract:**

**Background:** This study aimed to investigate the effectiveness of life skills training on the emotional intelligence of abused and orphaned children in Tehran.

#### **Method:**

The research is a quasi-experimental study with pretest and posttest design with a control group. The statistical population of the study included all children aged 4-5 years in orphanages in Tehran. The selected individuals were divided into two groups of 15 in the experimental group and the control group. Also, life skills training was performed based on the book of life skills training of Firoozbakht, Mutable, and a collection of other related resources in the field of children and passing more than 150 hours of workshops in the area of children and life skills. Data were analyzed using multivariate analysis of covariance using SPSS software.

#### **Results:**

The results showed that life skills training has been influential in the social skills of poorly supervised and orphaned children in Tehran.

#### **Conclusion:**

Life skills help children to understand their inner feelings better and be able to express their feelings in different situations easily.

**Keywords:** Life Skills, Self-Awareness, Self-Management, Social Awareness, Relationship Management

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#### Introduction

The World Health Organization declared 2001 the World Year of "Mental Health" and chanted the slogan "Neglect is enough, let 's take care" to highlight the issue's importance. Research shows that mental disorders and the resulting social ills are rising. To deal with this problem, prevention is of particular importance. The purpose of prevention is to increase the awareness and ability of people to deal correctly and appropriately with life events, and the first step to achieving this goal is to teach life skills. The life skills training program enables people to translate their knowledge, values, and attitudes into actual abilities. It means knowing what to do and how to do it. Therefore, this program can provide mental, social, and physical health for people, and it is better to do this education at a younger age. The change in the family structure, the vast and complex network of human communication, and the diversity, breadth, and influx of human information resources have faced numerous challenges, stresses, and pressures that require effective psychosocial capabilities to deal effectively with. Lack of emotional. psychological, and social skills and abilities makes people vulnerable in the face of problems and exposes them to various psychological, social, and behavioral disorders. In 1993, life skills training was strongly recommended by the United Nations to member states. Life skills are abilities that help us to behave wisely and correctly in different situations so that we can relax, enjoy, and at the same time establish a consistent and valuable relationship with others; and be able to do so without resorting to violence or selfishness. Solve the problems that arise and feel happy while succeeding in life. Life skills pursue the goals that are necessary to have a good and comfortable life: Part of the goals of life skills are:

- Strengthen confidence

- Strengthen the spirit of participation and cooperation
- Development and strengthening of human emotions
- Creating a spirit of resistance to poisonous advertising
- Help identify and express emotions
- Providing physical health and mental health
- Strengthen communication skills
- Making a balanced and acceptable citizen of the society
- Strengthen the spirit of coexistent and peaceful
- Improving the compatibility of the individual with himself, others, and his living environment.

Emotional intelligence is considered the ability to recognize and manage emotions in social communication by which a person will be able to solve his problems. It is also emphasized in managing the emotions of oneself and others. Meyer and Salovi, by introducing the concept of emotional intelligence during the years (1990-1993), which was based on Gardner's theory of individual talents, considered emotional intelligence as a type of social intelligence and included four primary components, which are from the lowest to the highest level. Sorted by: Receiving and using emotions, absorbing emotions in thinking is the same as emotional facilitation of thinking, understanding emotions, and thoughtful regulation of emotions (1). Gelman listed emotional intelligence as having five main areas: 1- Awareness of your emotions 2-Emotion management 3- Self-motivation 4-Identifying emotions in others 5- Managing relationships. Emotional intelligence, another model, is defined by Baron as a set of non-cognitive abilities, competencies, and skills that affect a person's ability to succeed in the face of environmental pressures (2). Over the past two decades, emotional intelligence has been one of the most essential topics in the social sciences and humanities, including the field of management and organization, and its applications and capabilities, compared to intelligence, logical have always discussed(13). The word emotional intelligence is a compound and contrasting word, which is divided into two words, emotion, and intelligence, or in other words, emotion and logic. Aristotle; was the first to put the two words emotion and reason together. He exemplifies: It is easy to get angry, but it is not easy to get mad at someone in the right way, reasonably and correctly at the right time, and for the right reason. Peter Salvey; Is the first person to provide a clear definition of dynamic intelligence: emotional intelligence; is a type of processing of emotional information, which includes the correct evaluation of emotion and feelings in oneself and others, and the proper expression of feelings and adaptive regulation of emotions, in a way that improves the standard of living (3). Since very little research has been done in the field of life skills and emotional intelligence and children, considering the importance of the subject in this study, we examine life skills training on improving the emotional intelligence of abused and neglected children in Tehran. Dehghan and Shahrokhinia (1400) (4) in a study on the subject of "content analysis of the textbook of social studies in the third grade of elementary school based on attention to emotional intelligence skills." The purpose of this study was to investigate the content analysis of the third-grade elementary school social studies textbook based on attention to emotional intelligence skills according to the model of William Rumi. The results showed that according to the model of William Rumi, the content of the third-grade elementary social studies textbook includes components of emotional intelligence and strengthens this skill in students. Because based on the calculation of the learner engagement coefficient, the text, images, and activities of this book were able to engage the person

involved in learning and present topics in a playful way. Ghorbani et al. (2016) (1) research the role of "metacognitive strategies and emotional intelligence in predicting the writing skills of sixth-grade students." This study aimed to determine the relationship between metacognitive strategies and emotional intelligence with the writing skills of sixthgrade elementary school students in Arak(14). Results Pearson correlation results showed a positive and significant correlation between writing skills and metacognitive strategies, and emotional intelligence. Concurrent regression results also showed that emotional intelligence and metacognitive strategies could predict writing skills. Conclusion According to the findings, metacognitive and emotional intelligence strategies can improve students' writing skills in the primary school education system. Sultan Tabar et al. (2015) (5) in a study on the subject of "explaining the structural relationship between basic psychological needs and quality of life through the mediation of emotional intelligence in homeless and abused adolescents." Loss of parental affection for any reason seems to cause the adolescent's developmental needs to fail, leading to crises and psycho-behavioral-social harms among unaccompanied orphaned adolescents and lower quality of life. The present study aimed to explain the structural relationships between basic psychological needs and quality of lifebased on the mediating role of emotional intelligence in homeless and abused adolescents. According to the findings of this study, emotional intelligence mediates the relationship between basic needs and quality of life in homeless and abused adolescents. Rostami Sani et al. (2016) (6) in research on the subject of "The effectiveness of mindfulness training on resilience in terms of emotional intelligence." Students are the most active part of any society, and mental health is one of their most important issues because it provides the ground for their optimal performance. The present study was conducted to determine the effectiveness of mindfulness training on students 'resilience in terms of emotional intelligence. Based on the findings of this study, it can be said that mindfulness training can play an influential role in improving students' resilience in terms of emotional intelligence. Ghorbanzadeh et al. (2017) (7) in a study on "The relationship between fine and gross motor skills with academic achievement in children: the mediating role of emotional intelligence." This study aimed to investigate the relationship between fine and gross motor skills with academic achievement in sevenyear-old children. The results showed that fine and gross motor skills, emotional intelligence, and academic achievement have a positive relationship. Structural equation modeling analysis showed that motor skills have a positive effect on academic achievement through an indirect path and emotional intelligence. These results indicate importance of emphasizing fine and gross motor skills for early school academic achievement. Ghorbani (2013) (8) conducted a study entitled "Assessing the relationship between emotional intelligence and dimensions of identity." The purpose of this study was to investigate the relationship between the four dimensions of identity and the four components of emotional intelligence in adolescence. For this purpose, 114 adolescent girls and boys in middle and high school with an age range of 15 to 18 years were selected randomly. The questionnaire tools were the aspects of identity AQI-IV and the questionnaire of emotional intelligence shot. Overall, the results of this study stated that the dimensions of identity play an essential role in an individual's emotional intelligence as one of the requirements of daily life. Abbasi (2012) (9) conducted a study to investigate the effect of group life skills training (social skills) on the emotional intelligence of high school students in Firoozabad. The results showed that social

skills training effectively increased the main components of emotional intelligence of experimental group students. Zarei (2012) (10) conducted a study aimed at the effectiveness of life skills training (interpersonal relationships and assertiveness) on the self-esteem and emotional intelligence of students in Minab. This study was a quasi-experimental pretestposttest method with a control group. The statistical population was male first-year high school students in Minab city, from which 40 students were selected by convenience sampling method and were randomly divided into experimental and control groups. The covariance analysis results showed that life skills training had no significant effect on students' self-esteem and emotional intelligence. Jiang et al. (2021) (11) in a study on "Childhood abuse and life satisfaction in adulthood mediated the effect of emotional intelligence positive effect and negative impact." In this study, the mediating role of emotional intelligence, the positive effect, and the adverse effects of the impact of childhood abuse on life satisfaction was investigated. 811 participants completed the Childhood Trauma Questionnaire, Wang's Law **Emotional** Intelligence Scale, Positive Impact and Negative Scale, and Life Satisfaction Scale. The results showed that emotional intelligence has a positive effect and a negative effect is a mediator between childhood abuse and life satisfaction. In addition, childhood abuse affects life satisfaction through a series of 'negative emotional impact' and 'negative emotional intelligence' mediations. Miller et al. (2018) (12) in a study on "Emotional Challenging Perception and Intelligence: Effectiveness of 'Soft Skills' in Children", Contact through the lens is emotional intelligence. Studies show that many police officers feel fear and suspicion in incidents involving children. Children reported a significant difference in officers' empathy, a fundamental principle of EI that affected their feelings of safety and visibility in accidents. The results showed that emotional intelligence has no significant relationship, especially in terms of social characteristics and clinical population, a passionate connection is significant with depressive disorders, and intelligence is related to the level of depression and other methods used to reduce depression (quoted by Lindsey et al., 2016). A study of life skills training on improving the emotional intelligence of abused and homeless children in Tehran.

#### **Research Methods**

This research has been done in terms of practical purpose and semi-experimentally with pretest and posttest design and with the control group. The statistical population included poorly cared for and orphaned children in 4 nursing homes in Tehran (Ameneh, Turkmanian, Shabir. Hazrat Roghayeh) 2017-2018. Among 400 children (approximately) in 4 branches of Tehran Nurseries (Ameneh, Shabir, Turkmani, Hazrat Roghayeh) by available sampling method, the Shahid Turkmani branch was selected. Then during a question from the head of the department of children who were similar in age, gender, and life situation. Thirty boys aged 4 and 5 years. Identified as abused and unaccompanied children; were selected and then randomly divided into two experimental groups (15 people) and a control group (15 people); Two scales were administered to all children in the two groups.

The study population was monitored by the researcher for one year before the start of the research. By observing the performance, reactions, and behavior of children and interviewing officials and caregivers who were in close contact with the children, the researcher was able to gain a basic understanding of the behavioral characteristics of this group of children. During the official meeting organized by the center's officials in

September 2017, the researcher introduced their research work, and at the end, to clarify the goals and methods, the researcher participated in a question-and-answer session. The research was conducted for six months, from the beginning of October to the end of March 2017; in Shahid Turkmani Center (District 17) in Tehran. The experimental group was trained in 15 sessions of 90 minutes (1 session per week).

These pieces of training were based on the book of Firoozbakht, Mutabi life skills training book, and a collection of other related resources in a lot of children and passing more than 150 hours of workshops in the field of children and life skills.

It is worth mentioning that at first, to communicate and get to know the environment and interact with children, five sessions of 90 minutes were held in the background and this period was spent playing and having fun; then life skills training was done in 10 sessions of 90 minutes; The details of the meetings are as follows:

#### **Research findings**

Examining the assumptions of one-way analysis of covariance

1- Assuming the same variances

According to Table 2, it can be seen that the significance level of F statistics is more significant than 0.05. Therefore, the null hypothesis of the test (equality of variances) is not rejected, and the contentions of the research groups are equal.

The assumption that linear regression is interdependent and dependent

Figures 1 to 5 show the scatters of these scores as well as the regression lines related to each group in the present research analyses:

The diagrams above show a linear relationship (approximate line) for each group approximately. Therefore, these findings indicate that the hypothesis of a linear relationship is almost established.

# **Assumption of Covariance Matrix Equality Equality**

Table 3 shows the result of the M-box test to examine the parity of the covariance matrices observed in the dependent variable of the research:

According to Table 3, it can be seen that the significance level of the F-value, which is equal to 0.37, is more significant than 0.05. Therefore, it can be said that the null hypothesis is accepted, and We see the equivalence of the observed covariance matrices of the dependent variable between different groups.

## Investigation of research hypotheses

Table 4 shows the results of the multivariate analysis of variance (MANCOVA) test to examine the differences between research groups in the model as a whole:

According to Table 4, it can be seen that the significance level of the MANCOVA test is less than 0.05, and therefore, the null hypothesis is rejected, and the existing models with the dependent variable of the present study are significant, and between the mean posttest of the case groups. There is a substantial difference in terms of psychological characteristics under investigation. Analysis of variance was used to investigate each feature separately.

**Testing the central hypothesis of the research:** Life skills training effectively improves the emotional intelligence of abused and neglected children.

According to Table 5, it was concluded that after adjusting the pretest scores, the significance level of the one-way analysis of the covariance test related to the emotional intelligence variable was less than 0.05. Therefore, the test was significant (p = 0.001, F=12.74). Therefore, the different effect of the group variable on the emotional intelligence variable is substantial. That is, statistically, the mean posttest scores of the dependent variable

of emotional intelligence are different in the two research groups. According to the mean of the variable in the two research groups, it is observed that the mean posttest of the experimental group (26.36) was significantly higher than the control group (25.56); Therefore, it is concluded that life skills training has a significant effect on improving the emotional intelligence of abused and unaccompanied children.

**Sub-Hypothesis 1 Test:** Life skills training effectively improves the self-awareness subscale of abused and homeless children.

According to Table 6, it was concluded that after adjusting the pretest scores, the level of significance of the one-way analysis of the covariance test related to the self-awareness subscale variable was more than 0.05. Therefore, the test was not significant (p = 0.32, F=1.03); Therefore, the separate effect of the group variable on the self-awareness subscale variable is not important. That is, statistically, the mean post-test scores of the dependent variable of the self-awareness subscale are the same in the two research groups, and therefore it is concluded that life skills training does not have a significant effect on improving the selfawareness subscale of abused and homeless children.

**Sub-Hypothesis 2 Test:** Life skills training effectively improves the self-management subscale of abused and neglected children.

According to Table 7, it was concluded that after adjusting the pretest scores, the significance level of the one-way analysis of the covariance test related to the self-management subscale variable was more than 0.05. Therefore, the test was not significant (p=0.26, F=1.30) and hence the effect. Separately, the group variable is not important in the self-management subscale variable. That is, statistically, the mean posttest scores of the dependent variable of the self-management

subscale are the same in the two research groups, and therefore it is concluded that life skills training does not have a significant effect on improving the self-management subscale of abused and homeless children.

**Sub-Hypothesis 3 Test:** Life skills training effectively improves the social awareness subscale of abused and homeless children.

According to Table 8, it was concluded that after adjusting the pretest scores, significance level of the one-way analysis of covariance related to the social consciousness subscale variable was more than 0.05. Therefore, the test was not significant (p = 0.34, F = 0.96); Therefore, the separate effect of the group variable on the subscale variable of social consciousness is not substantial. That is, statistically, the mean post-test scores of the dependent variable of the social awareness subscale are the same in the two research groups, and therefore it is concluded that life skills training has no significant effect on improving the social awareness subscale of abused and homeless children.

**Sub-Hypothesis 4 Test:** Life skills training effectively improves the relationship management scale of abused and neglected children.

According to Table 9, it was concluded that after adjusting the pretest scores, the level of significance of the one-way analysis of the covariance test related to the relationship management subscale variable was more than 0.05. Therefore, the test was not significant (p=0.36, F=0.87); Therefore, the separate effect of the group variable on the variable of the relationship management subscale is not significant. That is, statistically, the mean posttest scores of the dependent variable of the relationship management subscale are the same in the two research groups, and therefore it is concluded that life skills training does not have a significant effect on improving the

relationship management subscale of abused and homeless children.

#### Discussion

Nowadays, psychologists, in addition to paying attention to the differences between individuals in terms of scientific intelligence, also consider a significant emotional intelligence as difference between different personalities of individuals. So different people may be different from each other in terms of emotional intelligence, and this difference is manifested in different ways in their lives. Functions and functions of people are different due to having a degree of emotional intelligence, and their whole life is overshadowed. Emotional intelligence has been considered by experts for many years. For about twenty years now, the concept of emotional intelligence IQ. Researchers dominated were more interested in emotional intelligence because, in practice, they saw that many prominent people, despite their abilities and high cognitive intelligence (IQ), do not have brilliant success. Most importantly, sometimes their presence in the collection is disruptive.

Life skills are defined as abilities that provide the basis for adaptation; and positive and helpful behavior. The importance of learning these skills from childhood can be the foundation of individual and social health in adulthood. On the other hand, emotional intelligence means the ability to recognize the emotions of oneself and others, distinguish between feelings and use this information to guide one's thoughts and actions, one of the factors affecting human life events that can be developed under the influence of learning life skills in childhood; Provide the ground for better adaptation of the person to the conditions and situations of life (8).

Based on the obtained results, it was concluded that the different effect of the group variable on the emotional intelligence variable is significant. That is, statistically, the mean scores of posttest of the dependent variable of emotional intelligence in the two research groups are different. It is also observed that the mean posttest of the experimental group is significantly lower than the control group. Therefore, it is concluded that life skills training has a significant effect on improving the emotional intelligence of poorly supervised and orphaned children.

Considering that the effect of life skills training on emotional intelligence of inadequately supervised and orphaned children observed to be significant and positive and based on the opinion of Mohammadnejad et al. (15), Dehghan et al. (1400) (4), McCann et al. (2020) (16) who presented consistent results in their research, confirm the above finding. No heterogeneous research was found in this case. Explaining that life skills training for abused and neglected children has a significant relationship with their emotional intelligence, it can be said that life skills help children to understand their inner feelings better and to be able to express their feelings easily in different situations.

#### Conclusion

Based on this study and similar studies, the effect of life skills training on improving the emotional intelligence of abused and orphaned children can be confirmed. In general, it can be concluded from the training sessions and talking with the center officials that this training course has had a positive effect on improving children's emotional intelligence.

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#### **Tables**

### Table 1: General description of life skills training sessions

Session 1: Welcoming, introducing the coach, people in the game, explaining about the class, doing various activities to get to know the team members

Session 2: Teaching the skills of self-awareness, identity, and self-identification, recognizing their characteristics and traits, abilities, talents, and achievements, realistic self-image, identifying thoughts, beliefs, drawing, magic box (training was done in the form of play and drama)

Session 3: Reviewing the concepts of the previous session, empathy skills, recognizing emotions, self-respect, and others in the form of puppet shows (differences)

Session 4: Reviewing the concepts of the previous session, interpersonal skills: Active listening, caring about the other person's feelings, needs, and wants, respecting, asserting, saying no, the importance of the turn, reading the story

Session 5: Negative Emotion Management; Coping with stress and anger: 1) Abdominal breathing 2) Relaxing the muscles 3) Counting down the session, doing calming movements, drawing yourself with different emotions with any tool.

Session 6: Performing manipulative activities; Problem-solving skills: Choose the best solution in the face of various problems; Getting to the point where we can offer a good answer without any judgment, good or bad evaluation.

Session 7: Performing Balance Gestures, Decision Making Skills: Decision making helps us to make the desired decision with information and awareness, taking into account our goals; and telling stories.

Session 8: Review of past concepts, creative thinking skills, making handicrafts from recycled materials, a puppet show with made materials

Session 9: Concepts course, Concentration activity, Critical thinking skills: Asking appropriate questions of oneself and others to understand the material more accurately, Gathering information, Examining and evaluating the information gathered about the material or issue raised, Skills saying no

Session 10: Balance and concentration activities, practical communication skills, cooperation and teamwork, puppet show

Table 2: Levin test results to evaluate the equality of variances of groups related to the emotional intelligence variable

| Component                      | F- value | Degrees of | <b>Degrees</b> of | Significance |
|--------------------------------|----------|------------|-------------------|--------------|
|                                |          | freedom 1  | freedom 2         | level        |
| Emotional Intelligence (Total) | 0.44     | 1          | 28                | 0.51         |
| Self-awareness                 | 0.44     | 1          | 28                | 0.51         |
| Self-management                | 0.002    | 1          | 28                | 0.96         |
| Social consciousness           | 0.71     | 1          | 28                | 0.41         |
| Relationship management        | 3.70     | 1          | 28                | 0.06         |

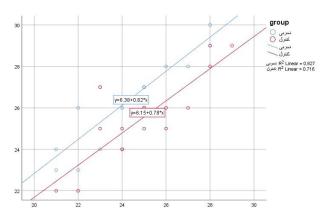


Diagram 1: Distribution diagram about the relationship between pretest and posttest of emotional intelligence variable (sum)

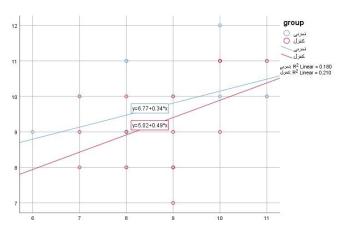


Diagram 2: Distribution diagram related to the relationship between pretest and posttest of the self-awareness subscale (Emotional Intelligence Questionnaire)

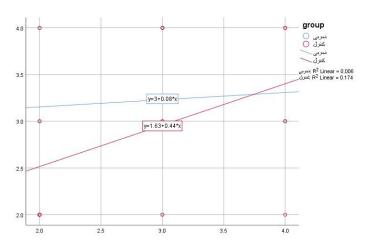


Diagram 3: Distribution diagram related to the relationship between pretest and posttest of self-management subscale (Emotional Intelligence Questionnaire)

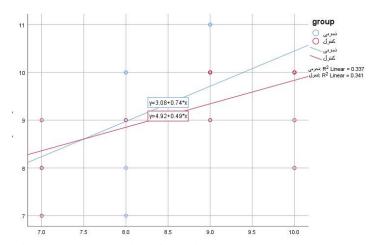


Diagram 4: Distribution diagram related to the relationship between pretest and posttest of social consciousness subscale (Emotional Intelligence Questionnaire)

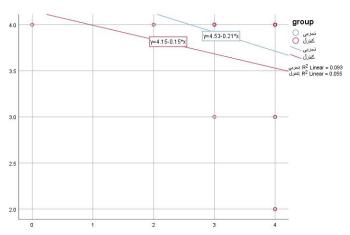


Diagram 5: Distribution diagram related to the relationship between pretest and posttest Relationship Management subscale (Emotional Intelligence Questionnaire)

Table 3: Results of M box test

| Significance level Degrees of freedom 2 |           | Degrees of freedom 1 | F- value |  |
|---|-----------|----------------------|----------|--|
| 0.77                                    | 397445.47 | 3                    | 0.37     |  |

Table 4: MANCOVA test to examine the overall difference between the dependent variables of research groups

| Effect        | F- value | Degrees of | Significance level | Squared eta | Test power |
|---------------|----------|------------|--------------------|-------------|------------|
|               |          | freedom    |                    |             |            |
| Pillay effect | 35.57    | 2          | 0/00001**          | 0.74        | 1          |
| Lambda        | 35.57    | 2          | 0/00001**          | 0.74        | 1          |
| Wilkes        |          |            |                    |             |            |
| Hotline       | 35.57    | 2          | 0/00001**          | 0.74        | 1          |
| effect        |          |            |                    |             |            |
| Roots         | 35.57    | 2          | 0/00001**          | 0.74        | 1          |

Table 5: The results of the one-way analysis of covariance related to the emotional intelligence variable

| Source       | sum of  | Degrees of | average | F-    | Significance | Squared | Test  |
|--------------|---------|------------|---------|-------|--------------|---------|-------|
| statistic of | squares | freedom    | of      | value | level        | eta     | power |
| variance     |         |            | squares |       |              |         |       |
| Pretest      | 96.37   | 1          | 96.37   | 90.39 | 0.0001**     | 0.77    | -     |
| group        | 13.58   | 1          | 13.58   | 12.74 | 0.001**      | 0.32    | 0.93  |
| Error        | 28.79   | 27         | 1.07    | -     | -            | -       | -     |
| Total        | 129.87  | 29         | -       | -     | -            | -       | -     |

Table 6: Results of one-way analysis of covariance related to self-awareness subscale variables

| Source statistic of | sum of squares | Degrees of freedom | average<br>of | F-<br>value | Significance<br>level | Squared eta | Test<br>power |
|---------------------|----------------|--------------------|---------------|-------------|-----------------------|-------------|---------------|
| variance            | squares        | ii ccuoiii         | squares       | Variation   |                       | Cia         | power         |
| Pretest             | 8.36           | 1                  | 8.36          | 6.37        | 0.018*                | 0.19        | -             |
| group               | 1.35           | 1                  | 1.35          | 1.03        | 0.32                  | 0.04        | 0.16          |
| Error               | 35.43          | 27                 | 1.31          | -           | -                     | -           | -             |
| Total               | 45.47          | 29                 | -             | -           | -                     | -           | -             |

Table 7: Results of one-way analysis of covariance related to self-management subscale variable

| Source       | sum of  | Degrees of | average | F-    | Significance | Squared eta | Test  |
|--------------|---------|------------|---------|-------|--------------|-------------|-------|
| statistic of | squares | freedom    | of      | value | level        |             | power |
| variance     |         |            | squares |       |              |             |       |
| Pretest      | 1.48    | 1          | 1.48    | 2.14  | 0.15         | 0.07        | -     |
| group        | 0.90    | 1          | 0.90    | 1.30  | 0.26         | 0.05        | 0.20  |
| Error        | 18.63   | 27         | 0.69    | -     | -            | -           | -     |
| Total        | 20.97   | 89         | -       | -     | -            | -           | -     |

Table 8: Results of one-way analysis of covariance related to the subscale variable of social awareness

| Source       | sum of  | Degrees of | average | F-     | Significance | Squared eta | Test  |
|--------------|---------|------------|---------|--------|--------------|-------------|-------|
| statistic of | squares | freedom    | of      | value  | level        |             | power |
| variance     |         |            | squares |        |              |             |       |
| Pretest      | 10.06   | 1          | 10.06   | 13.009 | 0.001**      | 0.32        | -     |
| group        | 0.74    | 1          | 0.74    | 0.96   | 0.34         | 0.03        | 0.16  |
| Error        | 20.88   | 27         | 0.77    | -      | -            | -           | -     |
| Total        | 31.20   | 29         | -       | -      | -            | -           | -     |

Table 9: Results of one-way analysis of covariance related to the variable of relational management subscale

| Source<br>statistic of<br>variance | sum of squares | Degrees of freedom | average<br>of<br>squares | F-<br>value | Significance<br>level | Squared eta | Test<br>power |
|------------------------------------|----------------|--------------------|--------------------------|-------------|-----------------------|-------------|---------------|
| Pretest                            | 0.64           | 1                  | 0.64                     | 1.81        | 0.19                  | 0.06        | -             |
| group                              | 0.31           | 1                  | 0.31                     | 0.88        | 0.36                  | 0.03        | 0.15          |
| Error                              | 9.47           | 27                 | 0.35                     | -           | -                     | -           | -             |
| Total                              | 10.30          | 29                 | -                        | -           | -                     | -           | -             |