



**International Journal of Biology, Pharmacy  
and Allied Sciences (IJBPAS)**

*'A Bridge Between Laboratory and Reader'*

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**THE EFFECTIVENESS OF PROBLEM-SOLVING SKILL TEACHING ON  
RESILIENCY OF ORPHAN AND IRRESPONSIBLE TEENAGERS**

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**ABSTRACT**

Present study has been designed to determine the effectiveness of problem-solving skill training on resiliency of orphan and irresponsible teenagers. The population consisted of all adolescent girls who were enrolled in the second semester at children center, Shush, 2013. Of these 30 people were selected by convenience sampling method and were randomly assigned to two experimental and control groups. The present study is of experimental research that was performed as interventional. The study design was pretest-posttest with control group and a follow-up for one-month. The tool used in this research was Resiliency questionnaire (Conner and Davidson). Analysis of covariance was used for data analysis. The results showed that the resiliency in girls under problem-solving skill training has been a significant increase. Also, the follow-up after one and half months has confirmed persistency of this effect. Therefore, the problem-solving skill teaching can be used as a way to enhance the resiliency of orphan and irresponsible girls.

**Keywords: Problem Solving Skill, Resiliency, Orphan and Irresponsible Adolescents**

**INTRODUCTION**

The phenomenon of orphan and irresponsible children is one of social

problems that existed in all ages and places.

This phenomenon is the result of individual, family interactions and environmental

problems. Orphan and irresponsible children are actually under 18-year-old ones who are deprived of the qualified head permanently or temporarily for some reasons. These children are admitted at boarding adolescent and children house; they are cared on the basis of age and gender to transfer to family and community temporarily or permanently (Akbarzadeh, 2004).

They are deprived of psychological education and parents' effective support as well as the benefits of living in families (Asghari Nekah and Heidari Darbandi 2010). Caring, empathetic understanding and participation, clear power structure and problem-solving are including essential functions of the family (Paz & Laksman, 2009, quoted by Eslami et al., 2013). They played a key role in providing children's psychological health.

These people are children who their guardians are lack of necessary social, moral and behavioral qualification to foster their children for various reasons, including drug addiction, physical and psychological abuses and damage to children. Separating from parents' love, non-fulfillment of different needs of the growing period, such as the need for belonging, admiration and love has led to higher incidence of crises and mental trauma, behavioral disorders, aggression,

anxiety, depression, tendency to use drug and social disorders among these adolescents.

In Iran, the supportive organizations of children and adolescents including welfare organization, are covered and supervised orphan or irresponsible children. Living away from family and limited family interactions in the long term will cause these children to be at risk of identity, communication, individual, social problems and crises, reduced happiness, a sense of unpleasantness and decreased quality of life (Eslami et al, 2013).

In recent decades, psychologists have insisted on the fact that many disorders and damages are as a result of lack of control and competency of the individual in encountering difficult situations and being ready to solve the problem and issues of life (Ghale Asadi & Mahmudnia, 2007).

Resiliency is also one of the personality traits that play a role in mental health; in fact it is active and constructive participation of the individual in the environment. So, we can say that resilience is a person's capability to create psycho-environmental balance in dangerous conditions (Conner and Davidson, 2003; quoted by Alikhani, 2013). People who have resiliency are remedial and flexible; they adapt themselves

to environmental changes. Then, they quickly recovered after disappearing stressors. People who are at the bottom of low level of resiliency (on high and low resiliency continuum) adapt slightly themselves to new situations. They return slowly to normal state from stressful situations (Siebert, 2007; quoted by Alikhani, 2013).

One of the development stages associated with more pressures and problems is period of adolescence. This period is the most critical life time which is along with physical, mental and social changes. On the other hand, evaluating the encountering practices play important role in psychological adjustment of individuals. Several studies have shown that people who concentrate on problem-solving skills will represent less evidence of disturbance in stressful situations. Moreover, they have more control over the situation than those who are using the emotion-focused encounter. Also, they are better able to adapt themselves to difficult situations. Thus, less disease symptoms are emerging in them (Khodayarifard et al, 2000).

Most of the inconsistent and problematic people are related to the affected families. Children who are from struggling families are more susceptible to maladaptive

behaviors due to lack of concentration, mental relaxation and confusion (Alikhani, 2013).

Issen (2003) in his research concludes that resilience people adopt different attitude and argument in facing adverse conditions. They pay more attention to themselves than focusing on the problem and its consequences in this thought process. This decentralization and intellectual process of person are referred to the use of their cognitive system and using problem-oriented coping strategies (Besharat and Abbaspour Doplaei, 2011).

Many young people, who have aggressive or delinquent behaviors, may improve their behaviors if they are trained in the context of problem-solving skill. The lack of effective words and having no skill in using alternative solutions are important factors of aggression in these children (MC Murran & MC Gurre, 2005, quoted by Shokohi Yekta et al, 2008).

Results have suggested that families who have juvenile offender or drug addict had less ability to use problem-solving method. Hence, they applied more threat, punish, reprimand, strict control and use of power (Tosic et al., 1997; quoted by Shokohi Yekta et al, 2008).

Brugz and Gldashten (2001) in a research found that abiding people had learned to have realistic goals and expectations and to develop their ability to solve the problem (quoted by Shaghaghi, 2011). Skinner and Campbell (2009) were done a research on predicting the resiliency performance among children and adolescents having addicted parents. They found that early intervention on families with addicted parents in order to reduce internal and external problems has much improved resilience performance in adulthood at difficult and miserable condition (quoted by Shaghaghi, 2011).

Eilis (2010) in a research discovered that support factors such as communication, school environment and coping strategies, personality traits, high educational expectations play an important role in increasing resiliency (according to Jabbari & Abadi, 2011). Züst (2010) in a study which conducted on students indicated that abiding people utilized meta-cognitive strategies in analyzing the situations. In the studies of MC Murran & MC Gurre (2005) was revealed that if young people get trained for problem solving skill, their aggression and criminal behavior will be improved. The research of Ypatumai (2006) suggested that training program of problem-solving skill has significantly enhanced the creativity and

cognitive components in those students. The research of Mary Newton (2011) from Kaplan University showed that problem solving skill is a significant predictor in reducing the aggression of individuals.

Walsh (2003, quoted by the Kord Mirza, 2013) in his studies investigated three main areas include family system, model of organization and problem solving processes in family's resiliency. The results demonstrated that problem solving processes and communication can play a role in resiliency of family. Bazl (2004) in her research results showed that there is a significant direct correlation between problem-solving skills and areas of compatibility. In addition, the process of adaptation is largely dependent on cognitive approaches. Nabatchi Ahmadi (2012) in a research revealed that there is a direct relationship between resiliency and avoiding high-risk behaviors of street children. In other words, the street children with low resiliency are less abstaining risky behaviors. Also, there is relationship between resiliency and level of avoiding high-risk behaviors in non-street children. That is to say, those non-street children who have high resiliency are more keeping away high-risk behaviors. The research results of Hosseini (2011) indicated that positive

emotions are low in street children such as hope, optimism and resiliency. However, hostility, instability, irritability, distrust to parents and others, a sense of insecurity, fear and anxiety, pessimism and other negative emotions are abundantly seen in them. The research results of Sanjer (2003) show that financial, cultural poverty, shortage of love, severity, discrimination, lack of getting along with family members, domestic violence, endless strife of parents or guardians and family members crime are effective factors in escape of teenagers from home. Afkhami Goli (2009) in a research demonstrated that average propensity to escape in runaway girls of experimental group trained problem solving skill has reduced their tendency to run away from home. In a study conducted by Gholizadeh et al (2009), the results revealed that runaway girls in creative problem-solving style are significantly different from normal girls. Environmental factors are effective in girls' running away from home. There is a relationship between personality and style of problem-solving in runaway girls. The extroversion and neuroticism expressed 33% of inhibition components of problem-solving. Moreover, extroversion explained 10% of confidence variable in solving the problem. Falah Sloklai (2008), in a study

showed that problem-solving skill teaching was influential in developing social competence and behavioral, emotional, motivational sub-scales of students in experimental group. But, there was no change in the cognitive subscale. Ganje et al (2012) found that problem solving and emotional intelligence are significantly associated with a decrease in aggression among boy students. The research results of Khoshkam et al (2008) represented that social skills of students with visual impairment who were participated in training sessions of problem-solving have increased and their behavioral problems have declined.

Given the study objective and research background, the following hypothesis was tested:

Problem-solving skill training is effective on increasing the resiliency of orphan and irresponsible adolescents.

## **MATERIALS AND METHODS**

The present study is of experimental research that was performed as interventional. The population consisted of all adolescent girls at children center in Shush (Darvazeh Ghar) who were under support of Society for Protecting the Rights Child (SPRC). They were enrolled in second semester of school in Tehran, 2013. They

were 60 girls of which 30 qualified girls who were candidates to participate in the study selected and were randomly assigned to two experimental and control groups.

Research design was pre-test-post-test with control group. The problem solving skill teaching was administered in test group.

The resiliency questionnaire of Conner and Davidson (2003) and problem solving skill training package have been used to collect data.

#### **Conner & Davidson Resiliency Scale:**

Conner and Davidson Resiliency Scale [9], is a 25-item instrument that measures resiliency construct in a five-point Likert scale from zero to four. The minimum score of subjects' resiliency is zero and the maximum score is 100. Preliminary results of psychometric properties of this scale have confirmed its reliability and validity [9], Internal consistency, test-retest reliability and convergent and divergent validity of the scale have been reported enough. Nevertheless, the results of exploratory factor analysis have approved five factors (merit / personal strength, trust in personal instincts / handle negative emotions, positive reception of emotions / security relations, control and spirituality) for resiliency scale. Since the reliability and validity of subscales have certainly not been confirmed, currently

the overall resiliency score is only valid for the purpose of research [9], Conner and Davidson have reported the Cronbach's alpha coefficient of Resilience Scale by 0.89. Furthermore, the reliability coefficient of re-test in a four-week interval was 0.87.

Reliability and validity of Persian Form of resiliency scale was approved by Besharat [7], in studies of normal and patient samples. The validity of this structure was confirmed by Mohammad Ali Basharat, PhD in 2007, Iran. Mashalpour (2010) has also confirmed the validity of this construct. Mashalpour obtained the index level of Cronbach's alpha of 0.86 in 2010. Also, he showed that this construct has high validity through correlating it with hardiness scale of Ahvaz psychology by calculating  $r = 0.64$  at significance level of  $p < 0.0001$ . In study of Samani, Jokar, Sahragard (2007) the alpha coefficient of 0.87 was achieved for the reliability of this questionnaire. Salimi (2009) obtained the reliability coefficient of 0.89 in order to assess the reliability using Cronbach's alpha.

#### **Problem-solving skill training package**

The package involves 8 sessions in 120 minutes which they are as follows:

**First session:** introduction, communication and establishing intimacy

**Second session:** providing resiliency questionnaire as a pre-test and an explanation on how to run the workshop.

**Third session:** help participants to have right attitude about the problem.

**Fourth session:** defining the exact problem or issue

**Fifth session:** Presenting different solutions (brainstorming)

**Sixth session:** Evaluating the solutions

**Seventh session:** implementing, reviewing and selecting the chosen solutions

**Eighth session:** repeating the steps of problem-solving in many cases, final summarization and terminating the problem-solving teaching program as well as running resiliency questionnaire as post-test.

Finally, after gathering information, the parametric test of covariance analysis was used to analyze the data.

### **Intervention method**

Problem-solving skills training classes were held 2 times a week in 8 sessions of 120 minutes for a month.

In the end, after one and half months of implementation, we came back to the center. Then follow-up test including resiliency questionnaire was administered on participants of experimental group. Finally,

after gathering information, the analysis of covariance test was used with repeated measures to assess the differences between two groups and to see the effect of training package.

## **RESULTS**

### **A) Descriptive findings**

The descriptive findings of this study included statistics of mean and standard deviation that are presented in table 1.

### **B) The findings of the study hypothesis**

This section involves hypothesis with the results that are presented below.

**Main hypothesis:** problem-solving skill teaching is effective on increasing the resiliency in orphan and irresponsible adolescents.

The covariance analysis test was applied in order to evaluate the effectiveness of problem-solving skill teaching on increasing the resiliency in orphan and irresponsible adolescents.

The results indicate that consistency assumption of variances and similarity of regression slope are established. According to pre-assumptions of covariance test, summarized results of one-way univariate analysis of covariance for resiliency scores have been reported in table 3.

**Table 1: Statistical characteristics of predictor and criterion variables**

variable	group	Pre-test		Post-test		Follow-up	
		mean	Standard deviation	mean	Standard deviation	mean	Standard deviation
resiliency	Experimental	33.8	8.84	65.46	4.82	64.26	4.68
	Control	39.26	9.04	43.40	9.08	42.54	7.06

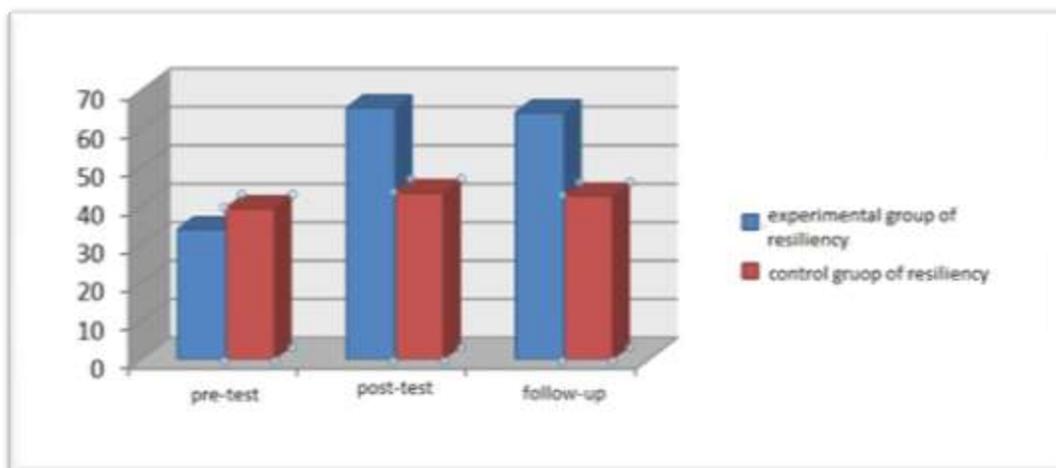
**Table 2: Levene Test to make the consistency assumption of variances and similarity of regression slope**

consistency of variances	SS	df	df	F
		between groups	within group	
similarity of regression slope	20.432	1	28	2.117
		df	MS	F
		1	20.432	0.345
error	1538.937	26	59.19	

**Table 3: Summarized results of analysis of covariance, effectiveness of problem-solving skill teaching on increasing resiliency**

Source of change	SS	df	MS	F	eta
Post-test	4802.496	1	4802.496		
Error	1559.369	27	57.754	83.15**	0.755
total	89449	30			

\*\*P<0.01



**Chart 1. Pre-test, post-test and follow-up of resiliency in both experimental and control groups**

The results show that the significance level of F is smaller than alpha level of 0.01. Therefore, it can be concluded that after removing the effect of pre-test, there is a significant difference between control and experimental groups in testing. Effect size

(partial Eta-squared) is also equals to 0.755. It means that problem-solving skill training can allocate 75% of the post-test variance to itself. Thus, it can be stated that problem-solving skill training is effective on increasing the resiliency in orphans and

irresponsible adolescents. So, our hypothesis based on the effectiveness of problem-solving skill training on increasing the resiliency in orphan and irresponsible adolescents, is confirmed.

## **CONCLUSION**

The present study was conducted to answer this question: is the problem-solving skill training effective on increasing the resiliency in orphan and irresponsible adolescents?

After implementing interventional program of problem-solving skill teaching to orphan and irresponsible adolescents and administrating resiliency questionnaire in pre-test and post-test, it was observed that the findings in this study are indicating a significant difference among scores of experimental and control groups.

Based on the results and calculated F, it was specified that problem-solving skill training has significantly increased the resiliency of subjects in experimental group from pre-test to post-test. Also, one and a half months follow-up is confirmed the stability of this impact. This result is consistent with the research findings of Nabatchi Ahmadi [21], Hosseini [15], Campbell Sills et al[8], Baldwin et al [5], Campbell [8], [10], Züst [26], Mc Murran & Mc Gurre [20], Ypatumai (2006), [4], [20], Kord Mirza[19], Bazl [6],

Sanjer [22], Afkhami Goli [1], Gholizadeh et al., [14], Falah Sloklaei [11], Ganje et al and Khoshkam et al., [18].

It can be said without exaggeration that problem-solving skill training is overall combination of all prevention programs such as information transmitting, presenting alternative solution and psychological intervention which is occurred in cognitive levels. Extending problem solving skill involves cognitive, emotional, moral and behavioral aspects in which each of these factors and accurate use of problem solving steps can create true problem-solving process in individual. That's why today the problem-solving-based programs are used in many fields such as academic achievement, crime avoidance, sexual abuse and prevention of drug consumption. One of the important aspects in solving the problem is changing expectations and attitudes of people. This leads to raise the problem-focused coping and to reduce the emotion-focused coping. Ultimately, that will work on enhancing the resiliency levels of individuals. Finally, the results of conducting this study showed that one of the most important ways to promote resiliency is problem-solving procedures, because if cognitive level of a person changes, his behavior will change, too. Thus, the results

of this research also demonstrated that there is a significant relationship between change of cognitive levels toward issues and increase of resiliency level. So, we can say that one of the best ways to changes in cognitive and behavioral levels is training. The more comprehensive training is, its effectiveness will be high, especially if it is presented at lower ages.

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