

## Effectiveness of Training Psychological Resilience on Aggression and Happiness among Students

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Received: 2014 March 11; Accepted: 2014 September 16

### Abstract

**Introduction:** Today, psychological methods are being applied more often to reduce adverse effects of social life and to enhance positive and satisfying effects of communal life. One of these methods is psychological resilience training.

**Objective:** The present study was conducted to determine the effectiveness of resilience training on aggression and happiness among nursing and midwifery students of Islamic Azad University of Rasht during 2013-14 academic years.

**Materials and Methods:** This controlled quasi-experimental study with a pretest-posttest design used Oxford Happiness Questionnaire; Buss-Perry Aggression Scale and Resilience Scale. The study population included 400 nursing students of Islamic Azad University of Rasht in the 2013-14 academic years. Inclusion criteria were willingness to participate in the study and no history of mental illnesses. Exclusion criteria were unwillingness to participate in the study, diagnosed psychological disorders, and the use of psychotropic medications and sedatives. According to the research methodology, the statistical sample consisted of 30 students selected using Morgan table by convenience sampling among eligible students who had low happiness score and high aggression score after completing the questionnaires. Then they were randomly assigned to the intervention and control groups (15 per group). The intervention group received twelve 75-minute sessions of resilience training by a consultant as a group and the control group received no training. After 12 sessions of resilience training, happiness and aggression among the students were measured in both groups (post-test), and then the data were presented using descriptive statistics (mean, standard deviation). The covariance analysis was used to evaluate the effects of resilience components on happiness and aggression.

**Results:** The statistical results showed that resilience training was effective on happiness and aggression reduction ( $P < 0.001$ ). According to the value of F and coefficient of Eta for the group variable and its significance in explaining the dependent variable of happiness, it could be said that resilience training was effective in increasing happiness. This difference was statistically significant at 1%.

**Conclusion:** According to the findings, implementing resilience training programs can be effective in decreasing aggression and increasing happiness in students. Therefore, it is useful to add these programs to university curriculum.

**Keywords:** Psychological Resilience, Aggression, Happiness, Students

## Introduction

Resilience can be defined as the capacity to recover from difficulties or modifying them. In fact, resilience is the capacity of people to stay healthy and endure harsh conditions, such that the person not only overcomes the difficult situation, but also get stronger [1]. A resilient person is flexible, finds new ways, adapts to the environment changes, and quickly recovers after the elimination of stress factors [2]. Therefore, resilience is successful coping with stress and difficult situations [3]. Hence, it is logical that students' mental health be studied regarding resilience, as the youth can adapt with challenging environment and at the time of problems and have a better mental health. Werner also suggested that resilient students had fewer harmful behaviors and gained a better mental health score [4]. Jopp and Rott examined the effect of resilience on old people's happiness and concluded that resilience training increases level of happiness [5]. In a study by Lyubomirsky et al., the components of self-esteem, positive mood, and optimism in students with cognitive symptoms of depression improved depression and resilience up to 6 months after the completion of an intervention [6]. Positive mood is one of the factors that increase resilience and life satisfaction. Researchers suggest that people with a high positive mood usually have higher resilience.

Newman and Blackburn define resilience as an adaptive pattern. When a person uses these resources, resilience is strengthened and whether these resources are in or out of the individual, they promote him and make him immune to events [7]. Although aggression construct has some common aspects with anger and hostility, the terms are not synonymous. In fact, anger, hostility and aggression construct overlap. In short, the distinctions between these three concepts are as follows: Anger refers

to an emotion, hostility refers to an attitude, and aggression refers to a behavior. Anger can be described as an emotional state that can lead to aggression and hostility. Hostility is a pervasive aggressive attitude that leads the person to aggressive behaviors, while aggression is a visible behavior intended to harm [8]. Everyone has a personal standard for happiness that makes them interpret events in such a way that helps them maintain and increase their happiness, make life meaningful, and create a feeling of being valued [6]. Due to the importance of resilience among students, the present study tried to take a step towards reducing aggression and increasing happiness in this group by training resilience. Therefore, this study was conducted to determine the effectiveness of resilience training on aggression and happiness among nursing and midwifery students of the Islamic Azad University of Rasht during 2013-14 academic years.

## Materials and Methods

This was a controlled quasi-experimental study with pretest-posttest design. The study population was 400 nursing students of the Islamic Azad University of Rasht in the 2013-14 academic years. Inclusion criteria were willingness to participate in the study and no history of mental illnesses. Exclusion criteria were unwillingness to participate in the study, diagnosis of psychological disorders, and the use of psychotropic medications and sedatives. According to the research methodology, the statistical sample consisted of 30 students, selected using Morgan table by convenience sampling among eligible students who had low happiness score and high aggression score after completing the questionnaire. Then they were randomly assigned to the intervention and control groups (15 per group).

The intervention group receives twelve 75-minute sessions of resilience training by a consultant as a group while the control group received no training. After 12 sessions of resilience training, happiness and aggression among the students were

measured in both groups (post-test), and then the data was analyzed using the SPSS .18 statistical software. The tools used to collect data were Buss and Perry Aggression Scale, and Oxford Happiness Questionnaire (OHQ).

**Table 1. The summary of resilience training package**

Sessions	Subject	Target
1	Introducing resilience and session rules to the audience	<ul style="list-style-type: none"> <li>- Participants introduce themselves and know the host</li> <li>- They form friendly relationships</li> <li>- A simple definition of resilience is provided</li> <li>- The relationship between mental health and resilience is expressed.</li> </ul>
2	Awareness of capabilities	<ul style="list-style-type: none"> <li>- Participants provide a clear definition of self-consciousness</li> <li>- Express the main elements of self-consciousness</li> <li>- Recognize their strengths and weaknesses</li> <li>- Become self-conscious about their goals, finally achieve self-confidence.</li> </ul>
3	Improving self-esteem	<ul style="list-style-type: none"> <li>- Participants gain a clear understanding of self-esteem and identify factors contributing to its strengthening</li> <li>- Identify their weaknesses and remove one of them</li> <li>- Strengthen the self-esteem of others.</li> </ul>
4	Effective communication	<ul style="list-style-type: none"> <li>- Participants express a clear definition of communication</li> <li>- Are able to properly communicate with those around them</li> <li>- Realize the importance of communication in their lives.</li> </ul>
5	Establishing social relationships	<ul style="list-style-type: none"> <li>- Participants provide a clear definition of the concept of friendship</li> <li>- Recognize the characteristics of a good friend and apply them in making friends</li> <li>- Are able to discern good friends from bad friends</li> <li>- Express disadvantages of companionship with bad friends.</li> </ul>
6	Setting goals and achieving them	<ul style="list-style-type: none"> <li>- Participants differentiate short-term goals</li> <li>- Gain confidence in using their own abilities</li> <li>- Are able to plan for reaching their goal.</li> </ul>
7	Decision making	<ul style="list-style-type: none"> <li>- Participants name the correct criteria of a good decision</li> <li>- Explain its the importance and value</li> <li>- Anticipate the consequences of decisions.</li> </ul>
8	Problem solving	<ul style="list-style-type: none"> <li>- Participants explain the process of solving a problem</li> <li>- Learn to think about a problem</li> <li>- Are able to offer solutions for their problems</li> <li>- Achieve self-efficacy for solving their problems.</li> </ul>
9	Responsibility	<ul style="list-style-type: none"> <li>- Participants provide a simple definition of responsibility</li> <li>- Take responsibility for little issues in life</li> <li>- Easily express the characteristics of a responsible person.</li> </ul>
10	Anger and anxiety management.	<ul style="list-style-type: none"> <li>- Participants simply express the concepts of stress, anger, and anxiety and indicate their symptoms and consequences</li> <li>- Learn stress management techniques and are able to teach them to others.</li> <li>- Participants are able to use their sense of spirituality as a motivational factor</li> </ul>
11	Fostering a sense of spirituality	<ul style="list-style-type: none"> <li>- Are optimistic and hopeful about future</li> <li>- Believe in their uniqueness.</li> <li>- Participants express adolescence features</li> </ul>
12	Knowledge of adolescence	<ul style="list-style-type: none"> <li>- Name changes during adolescence</li> <li>- Express adolescence diseases</li> <li>- Name risk factors and protective factors of this period.</li> </ul>

The Aggression Scale was designed in 1992 and has four aggression domains. The reliability and validity of the questionnaire were assessed by Samani et al. in Iran [9]. The questionnaire has 29 items. Items 1, 5, 9, 13, 17, 21, 24, 26 and 28 are about physical aggression. Items 2, 6, 10, 14 and 18 are about verbal aggression. Items 3, 7, 11, 15, 19, 22 and 29 are about anger. Items 4, 8, 12, 16, 20, 23, 25 and 27 are about hostility. The total score of the scale shows the overall aggression, and the scores of its subscales show aggression presentations. Aggression Scale is a reliable tool with good test-retest reliability. Each item had five options (extremely uncharacteristic of me with 1 point to extremely characteristic of me with 5 points). Items 24 and 29 were scored in reverse. The scores of subscales were obtained by summing up the scores of its items. The total score was obtained by summing up the scores of all items, which ranged from 29 to 145 questions. Higher scores indicated more aggression.

Oxford Happiness Questionnaire (OHQ): A variety of methods have been used to measure happiness, with a wide range from judgments of friends and teachers to self-evaluation questionnaires. The final form of the questionnaire has 29 items. Alipoor and Noorbala translated and validated OHQ by eight experts [10]. In OHQ, "a", "b", "c", and "d" correspond with 1, 2, 3, and 4 points, respectively, and the scores range from 29 to 116. People who score 29 to 51 fall in the first quartile, 52 to 73 in the second quartile, 74 to 95 in

the third quartile, and 95 and more in the fourth quartile. The resilience training program consisted of 12 sessions (Table 1). The program was adopted from a program by Henderson, Milstein, and Krovetz in 1997 to create safe schools in the USA.

Each session consisted of: (1) Checking homework from the previous session; (2) Direct instruction by lecturing; (3) Group discussions; (4) Intellectual challenge; and (5) Wrap-up [11].

The following statistical methods were used to analyze the data and testing statistical hypothesis: Questionnaires' statistical characteristics were determined using descriptive statistics (mean, standard deviation and diagrams). The covariance analysis was used to evaluate the effects of resilience components on happiness and aggression. The Bonferroni correction was used to check whether the differences were statistically significant or caused by education.

### Results

The sample consisted of 18 female and 12 male nursing students. The mean age of all subjects was  $21.58 \pm 5.12$  years (range: 18-27). As Table 2 shows, after adjustment of the scores, intervention and control groups were significantly different in terms of aggression and happiness in post-test. The MANCOVA analysis was performed using Bonferroni correction to check whether the difference was statistically significant or caused by education (Table 2).

**Table 2. Mean and descriptive indicators in the studied groups**

Dependent Variable	Group	Mean	Standard Deviation	Lower bound	Upper bound
Happiness	Intervention	27.82	2.25	23.21	32.44
	Control	42.11	2.25	37.5	46.72
Aggression	Intervention	32.17	1.07	29.96	43.37
	Control	44.17	1.07	41.96	46.37

Table 3. The effect size of intervention groups based on Wilks Lambda test

Effect	Value	F	Degrees of freedom (Group)	Error degrees of freedom	Sig.	Effect's size
Wilks' Lambda	0.287	34.4	2	25	0.0001	0.832

Table 4. The effects of resilience training on happiness and reducing aggression

Changes Resources	Sum of Squares	Degrees of freedom	Mean Square	F	Sig.*
Happiness	1524.639	1	1524.639	22.412	0.0001
Error	1961.03	26	75.424		
Aggression	1076.451	1	1076.451	62.51	0.0001
Error	447.709	26	17.22		

\* Analysis of covariance

According to the F value and Etta coefficient for group variables resilience training was effective in decreasing aggression while it increased happiness. This difference was statistically significant at 0.01.

As Table (3) shows, the effect of resilience training in a combined variable had a significant effect with  $P < 0.0001$ ,  $F = 4.34$ . In other words, resilience training was effective in increasing happiness and decreasing aggression and square of Ettashows the high intensity of this effect as 0.832. According to the results, resilience training was effective on aggression by  $F = 72.413$  and  $P < 0.001$  (Table 4).

### Discussion

Results showed that resilience training was effective in decreasing aggression and increasing happiness. This is consistent with Pelich finding of a relationship between resilience training and severe youth problems. There was also a significant relationship between resilience training and personal adaptation, anxiety, depression and other problems [12]. These results support the fact that resilience is an important dimension of mental health and its deficiency is closely associated with chronic anxiety. Pelage found similar

results in a study on the relationship of resilience training and social anxiety and symptoms of mental illness in 20 randomly selected students [13]. Results showed a negative relationship between resilience training and social anxiety and symptoms of mental illness. No significant relationship was found between resilience training and social anxiety. The relationship between social anxiety and symptoms of mental illness was significant. Another study showed that resilience training had a negative relationship with mental vulnerability, including mental distress, depression and anxiety [14].

Resilience training is a person's internal and external adaptation under challenging conditions where the person fights with and adapts to these conditions with little harm. Therefore, resilience is a component that helps people adapt to a constantly changing world. This finding is in line with the results of the present study. As Lyubomirsky et al. noted in their study on education initiatives to improve resilience and happiness, such interventions can help individuals' resilience in facing adversity and recovering from negative experiences mostly due to positive emotions, positive thoughts and positive events [6]. Psychological resilience-based

interventions improve the quality of life [15] and satisfaction with life [16], which subsequently decrease depression [17] and increase happiness in people.

According to the present study, there was a significant positive relationship between resilience training and happiness. In addition, the results showed that resilience training was positively associated with optimism, and negatively associated with psychological distress [18]. In another study, researchers showed that resilience had reduced negative emotions and increased happiness [19]. Similar studies found a positive relationship between happiness and resilience [20-21]. A study evaluated the effect of cognitive-behavioral methods on reducing behavioral problems among male students through anger management programs. Re-evaluation and comparison with the control group showed that this treatment had a significant effect on reducing aggression among students [22]. Resilience thus can be defined as the ability to consciously resist against diseases [23].

A limitation of this study was that the sample was limited to nursing students and our results cannot be generalized to other courses. Convenience sampling can also be considered a limitation. It is recommended that specialized workshops be held in universities on group resilience training for students, resilience components be added to the curricula, and coping styles associated with resilience be examined among students with high scores of aggression.

### Acknowledgement

This paper was obtained from a research project approved by the Islamic Azad University of Rasht Branch. It was registered in the Iranian Registry of Clinical Trials (IRCT2016112231016N1). All students who cooperated in this project are deeply thanked. This study was approved by the Islamic Azad University of (51172910725013).

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