

EFFECTIVENESS OF RESILIENCE ON ACHIEVEMENT MOTIVATION AND SELF-EFFICACY IN STUDENTS OF NURSING

Hila Damari¹

¹Master of Nursing, Psychiatric Nursing, Islamic Azad University, Tehran Medical Sciences Branch, Tehran, Iran.
Email: hiladamari8@gmail.com

Abstract: The purpose of this study was to investigate the effect of resiliency on nursing students' progress and self-efficacy in Tehran (2018). The method of this study was quasi-experimental with pretest-posttest design with control group. The statistical population of the study was all nursing students of Iran University of Medical Sciences. With using convenience sampling method, 30 nurses (15 in each group) were selected from Tehran nurses in 1397 and were randomly divided into intervention and control groups. The experimental group received 10 sessions of 90-minute resuscitation training and the control group remained on the waiting list. Data collection was done based on Hermes Progress Motivation Questionnaire (1970) and Sherrer & Maddox (1982) self-efficacy questionnaire. Data analysis was performed by spss20 software in two descriptive and inferential parts (covariance analysis test). Findings of this study showed that resiliency training had an important role in increasing nursing students' achievements in motivation and self-efficacy. Therefore, based on the results of this study, resiliency training increases nursing students' achievements of motivation and self-efficacy.

Keywords: resilience, achievement motivation, self-efficacy.

INTRODUCTION

Self-efficacy is a key component of Bandura's social and cognitive theory, and self-efficacy is based on the idea that one can imagine phenomena and events in order to achieve their desired state of appropriate behavior (Bandura¹, 1993). In other words, self-efficacy relates to one's beliefs and mindsets about fulfilling one's goals (Conner², 2015). In fact, stress due to lack of motivation decreases self-efficacy, and instead of receiving social support and sufficient motivation, the sense of self-efficacy increases in individuals (Avansi, Shuh, Fraccaroli & Van Dick³, 2015). So that, high self-efficacy of the leader of the group can spread to the members of the group and bring about the desired performance of the group. Self-efficacy and high self-esteem of group members also influence and enhance the motivation of individuals to progress (Frensen, Haslem, Steffes, Vanbeselaere, Kupfer, Steca, Caprara⁴, 2015). High self-efficacy of members can not only focus on 'us' as a psychological reality, but also on transforming 'us' as an operational unit. Self-efficacy manages personal relationships, and individuals with higher self-efficacy experience with greater self-esteem and mental health (Di Giunta, Eisenberg, Kupfer, Steca, Tramontano & Caprara⁵). People with higher mental and objective self-efficacy show greater resistance to smoking (Simon, Connell, Kong, Monrean, Cavallo, Camenga & Krishnan-Sarin⁶). Parker, Marsh, Ciarrochi, Marshall & Abduliabbar⁷ (2014) found in their research on self-efficacy that there was a strong and

meaningful relationship between success and self-efficacy, as well as in self-efficacy and self-concept. Self-efficacy is also associated with the selection of activities, effort, endurance in the assignments and effective performance of learners. Students of Nursing had positive beliefs about their abilities and had better academic performance; On the contrary, students who had negative judgment about their abilities and in other words had low self-efficacy, had poor motivation and performance in academic affairs (Reid, Jones, Hurst & Anderson¹).

Motivation is a general term used to identify the common background between needs, cognitions and emotions (Mohammadi, Derakhshan, Borhani & Hosseinabadi, 1394). In fact, motivation effects on how time, energy, and persistence people spend doing things and how they spend their times (Martin & Steinbeck²). In general, the motivation for improvement expresses one's desire to do things, adjusting to a productive work environment, overcoming in problems, increasing workloads, competing in better choices and more by increasing the effort and overtaking others, in other words, the interest is in doing something better and more efficient than ever before (Gholami, Saberi, Ganji, & Pasha Sharifi, 2017). Seif believes that a person with a motivation for development, tends to do well and self-assess performance (Seif, 2013). People with high motivation for development tend to position themselves to experience greater mobility and satisfaction along the path to success (Pahljina-Reinic & Kolic-Vehovec³, 2017). People with a motivation for progress also choose relatively difficult to difficult assignments rather than easy ones. Instead of avoiding difficult tasks, they turn to these tasks and work harder to solve them, and they are better at solving them because of their more persistent, and if they face a problem and fail to solve difficult problems rather than seeking help from others, take responsibility for their own successes and failures (Sholtz & sholter, 2005, translated by seyedmohammadi, 2016). Researchers have linked advanced motivation to a variety of factors, such as academic achievement (Zhang¹), cognitive presentation beliefs (Safizadeh, 2012), self-regulation (Yaseminezhad, Taheri, Gol mohammadian Aahadi, 2011), communication patterns (Niyakan, 2012), and time management training (Yaghoobi, Mohagheghi, Yousefzadeh, Ganji & Olfati, 2014).

One of the training that seems to be effective in increasing nurses' motivation for progress and self-efficacy is resiliency training. Resilience is an ability to biopsychologically and spiritually balance, cope with risky conditions and form of recovery, optimism and intellectual flexibility, a skill in transforming problems as an opportunity for learning and development, perseverance and self-esteem, healthy support network, the ability to grow emotional and supernatural abilities, independency, a sense of well-being, and the ability to solve problems and resolve conflicts (Rostam Oghli, Talebi Joybari & Porzor, 2015). Emmy Werner² was one of the first scientists to use the term resilience in the 1970s. Resilience is one of the subjects that studied in Negative Positive Psychology. Positive psychology began to emerge in the late 1990s, focusing more on one's strengths and abilities rather than searching for one's weaknesses (Sadri Damirchi, Basharpour, Ramezani & Karimianpor, 2016). Although resiliency is partly dependent on personality traits, it is also subject to individual environmental experiences. Thus, humans are not the absolute victims of the environment and inheritance and can modify people's response to stress, adverse events and difficulties, so that they can overcome environmental problems and negative impacts (Noone Hastings³, 2009). Therefore, it can be promoted through education and help people to deal with the unpleasant events and realities of life in a positive and efficient way

(O'Connor Batcheller⁴, 2015). Various studies show the effectiveness of resiliency training program on mental health (Ahmadi & Sharifi Daramadi, 2014), psychological well-being (Dousti, Pormohammadreza Tajrishi & Ghobari Bonaab, 1393), increase the quality of life (Kaveh & et. al, 2011), depression's decrease (Akdas Mitrani², 2010), control of anger, positive emotions and increased self-esteem (Li & et.al³, 2014).

Overall, with considering the level of self-efficacy and motivation of nurses in their work environment, it plays a key role in the level of service to patients and the health care system, and there are many stressful factors in nursing workplace that can affect their clinical performance levels; therefore, psychological interventions based on resiliency are necessary, so paying attention to the problems and problems of nurses, especially their self-efficacy and motivation, and providing solutions to their problems related to mental health is of great importance. But before solving problems and providing solutions, one must first identify the root causes of the problems and the key variables in this field of work and finally explore the variables and dimensions of nurses' lives that are affected by these problems. Also, there are some ambiguous results from previous research, which adds further research to clarify and eliminate these ambiguities in the present research. Then, the aim of this study was to evaluate the effectiveness of resiliency training on nurses' motivation for self-efficacy and progress.

RESEARCH METHODS

The present study was an interventional study using pre-test and post-test design with control group and random assignment. The statistical population of this study consisted of all nursing students of Iran University of Medical Sciences in Tehran (2018). The sample consisted of 30 nursing students who were selected by non-random sampling (available) and were randomly assigned into two experimental (n = 15) and control (n = 15) groups. After selecting the two groups, the therapeutic goals were explained to them, and the presence or absence of research was dependent on the clients' opinion. Individuals were selected to determine the inclusion criteria. These criteria were: no psychiatric disorder treated and studied in the second and third year of nursing; and exclusion criteria included: 1. unwillingness to attend meetings, 2. individual, applicant for other assistance such as support services and co-participation in other treatment programs, 3. absence of more than three sessions for various reasons. The experimental group received 10 sessions of 90-minute resuscitation training and the control group remained on the waiting list. The contents of the resiliency training program sessions are presented in Table 1. The measurement tool in this study was the Hermens Progress Motivation Questionnaire (1970) and Sherrer and Maddux (1982) self-efficacy questionnaire.

Progress Motivation Questionnaire: The Hermens Progress Motivation Questionnaire (1970) is based on theoretical and empirical knowledge about the needs for improvement and is a review of the research related to the topic. Firstly, Hermens selected 92 articles and finally 29 articles as his final motivation questionnaire (Akbari, 2007). The validity of the Progress Motivation Questionnaire was obtained as 0.74 and Cronbach's alpha coefficient as 0.68 (Akbari, 2007). In this study, the validity of the Progress Motivation Questionnaire was obtained using Cronbach's alpha coefficient of 0.68.

General Self-Efficacy Questionnaire: The self-efficacy questionnaire of Sherrer and Maddox (1982) was used to measure self-efficacy. The scale has 23 questions, 17 of which relate to general self-efficacy and the others to self-efficacy experiences in social

situations. In this study, the Sherrer Self-Efficacy Scale of 17 was used. This scale is a 5-item scale with 1 to 5 points per item. The highest score on this scale is 85 and the lowest score is 17. Sherrer and Maddox (1982) reported a Cronbach's alpha of 0.86. based on the results of self-efficacy scores and internal-external control scale, a negative correlation was found between social competence and a positive correlation with self-efficacy. In the Najafi and Foladchang (1386) research, the reliability of this scale was reported through Cronbach's alpha of 0.80. In this study, the validity of the Progress Motivation Questionnaire was obtained using Cronbach's alpha coefficient of 0.76.

Table 1. Structure of Resilience Training Sessions

sessions	purposes
First session	Pre-test Provide guidelines for member participation and outline how to do it - Introducing the researcher - Introduce members - Describe the outline of meetings for members, work and group assignments
2 nd session	Purpose: To understand the general framework of the discussion: - Definition of resilience - Introducing Resilience Characteristics: 1. Happiness 2. Wisdom 3. Humor 4. Empathy 5. Intellectual Competence 6. Purposefulness in Life 7. Stability in Step Solution: Identify unpleasant situations in life and increase adaptability and tolerance in the individual domain
Third session	Objective: To familiarize with internal support factors - The concept of optimism - Source of Control - Learn about stress and ways to cope with stress Solution: Recognize and emphasize their talents and interests and desire to use them
Forth session	Objective: To get acquainted with external support factors - Social support system - Individual responsibility and acceptance of meaningful roles - Cognitive restructuring and constructing a model of constructive thinking (expressing the role of beliefs and thoughts in behavior and emotions and familiarity with cognitive errors) Solution: Feeling owned and valued and willing to participate
Fifth session	Purpose: To learn about resilience strategies - Establish and maintain relationships with others - Emphasize the importance of positive relationships with others and attitude towards them - Accept change - Understanding individual differences in perception, emphasizing the importance of the role of thoughts and self-talk
Sixth session	Purpose: To continue the ways of creating resilience - Aim and hope for the future - to act upon - Understanding thinking styles and emphasizing the role of optimistic thinking in resilience
Seventh session	Purpose: To continue the ways of creating resilience - Self-awareness - Self-esteem - Developing confidence
Eight session	Purpose: To continue the ways of creating resilience - Self-care - Framing stressors
Ninth session	Purpose: To continue the ways of creating resilience - Searching for meaning and meaning - Introducing a semantic approach and familiarity with Frank's experiences

Tenth session	-Emphasize the importance of making sense of unchanging problems - Summary, conclusion and implementation of the post-test
---------------	---

Data analysis was done by SPSS20 software in two descriptive and inferential parts (covariance analysis).

Results

To perform the analysis of covariance, the researcher examined these assumptions that all came true. 1. Natural distribution of scores 2. Homogeneity of variances examined by Levin and box test 3. Reliability: the control variable; the test performed as a covariance must be reliable and be appropriate to the research subject and design. 4. Performing the correlation before the start of the research 5. Conventional correlation of the correlations: If the research contains two or more correlations, all of them should not be large; and the index was not significant. 7. Linearity of the correlation of the independent variable: to prove this, the F value of the dependent variable after calculating the mean was done.

Table 2: Analysis of covariance related to resiliency training on the rate of achievement motivation in nursing students

Source	SS	df	Mean squares	F value	p	Impact factor	Statistical power
pre-test	11246.24	1	3763.69	96.35	0.0001	0.13	1.00
group	10264.21	1	12124.35	117.43	0.0001	0.92	1.00
Error	3157.74	37	92.28				

Covariance analysis was used to test Hypothesis 1 (resiliency training increases motivation for nursing students). As can be seen in Table 2, the F value obtained is significant at $P < 0.01$ level, so this research hypothesis is confirmed and it can be concluded with 99% confidence that resilience training enhances achievement motivation in students nursing. The effect index indicated that a 92% increase in variance in achievement motivation in the nursing students in the experimental group could be attributed to resiliency training. Statistical power 1 also indicates that in all cases, it is possible to reject the null hypothesis, indicating that the sample is adequate.

Table 3: Covariance analysis of resilience training on self-efficacy in nursing students

Source	SS	df	Mean squares	F value	p	Impact factor	Statistical power
pre-test	34.499	1	34.499	14.21	0.34	0.15	1.00
group	85.456	1	85.456	32.43	0.002	0.83	1.00
Error	233.699	37	6.31				

As can be seen in Table 3, the F value obtained is significant at $P < 0.01$ level, so hypothesis 2 of the study is confirmed and it can be concluded with 99% that resiliency training enhances students' nursing self-efficacy. The effect index indicated that an 83% increase in variance in self-efficacy among the nursing students in the experimental group can be attributed to resiliency training. Statistical power 1 also indicates that in all cases it is possible to reject the null hypothesis, indicating that the sample is adequate.

Discussion and conclusion

The purpose of this study was to evaluate resilience education intervention on nursing students' progress motivation and self-efficacy. The results showed that resilience motivation training was effective in nursing students. The results are in line with the findings of Parker et al. (2014), Simon et al. (2015), and DJ Anta et al. (2015). Chu et al. (2015) concluded in this study that nurses with high occupational stress had less job motivation and in the future reduced quality of life and prolonged stress at work not only affected physical, mental and spiritual health of nurses, but in the future it will have a negative impact on their job motivation and quality of life, so resiliency training will increase nurses' motivation. In explaining the results, it can be stated that resilience combines self-beliefs, self-education, and the world with individuals in training. Attending resiliency group training sessions allowed nurses to acknowledge their problems and to deal with them logically. Probably expressing successful and unsuccessful experiences in the presence of people who have a lot in common with the person will give him a sense of self-control, intimacy, responsibility and motivation.

For the first time, resiliency training may have provided nurses with the opportunity to face their own problems and feel that they have the skills that will allow them to enjoy a pleasant relationship despite their problems. In addition, training was designed to question-based and repeatedly emphasized avoiding quick response and more carefully to answers. On the other hand, the decrease in disruptive behaviors that motivate nurses to progress may be due to the fact that in group meetings, the practical and verbal participation of the individuals in finding solutions is strongly considered and the nurse's favorable behaviors and responses are encouraged (Iranian Electric, et al., 2016). This may have resulted in positive experiences and improved nursing attitudes, improved interpersonal relationships, and increased motivation.

The results also showed that resiliency training increased nursing students' self-efficacy. The results are in line with the findings of Lee et al. (2014), Jill et al. (2015), and Okonor and Bechler (2015). Manix et al. (2009) found in a study that optimism and resiliency training improve nurses' quality of life and self-efficacy. Mehrafrid et al. (2015) in a study aimed at the effect of positive thinking training on hardiness, resilience and showed that positive thinking training has led to a significant increase in hardiness and resilience and decreasing burnout in nurses. In explaining the results, it can be said that resilience training offers a belief in ability and an optimistic philosophy of life and is one of the practical building blocks that help one fill the gap between their own strengths and their limitations. (Miller et al., 2014) and, in other words, restores one's beliefs, dares people to do the work and, through encouragement, one finds the values of self-awareness and recognizes one's strengths and possessions. Therefore, resiliency training enhances people's empathy, which in turn increases people's self-efficacy, people with high self-efficacy, develop more flexible behaviors, and build better relationships with others.

These flexible behaviors lead to better problem solving and better understanding of situations. In fact, people who have a positive assessment of their lives are more relaxed and can categorize the information they receive more widely and varied. As a result, they have more association with a topic (Khalatbari et al., 2011). People with high levels of self-efficacy are more persistent in solving life's problems and more resilient to the undesirable feedback that they receive from their surroundings. As a result, they can display higher levels of positive emotions, and will also enable individuals to be immune

to stress and other negative aspects that endanger their mental health and well-being (Barghi Irani, 2016). Nursing managers can use resiliency education model to improve nurses' self-efficacy and motivate their progress. This study resiliency training program is a practical guide for educational supervisors. Among the limitations of the study are sample-specific nurses to patients in Tehran which limits the generalizability of results to other cities, including other limitations of this study being the small sample size and not comparing it with conventional cognitive therapy or other psychotherapy. Therefore, it is suggested that psychological researches related to the psychological components affecting the mental health of nurses, can be helpful in identifying and treating psychological problems in these individuals. It is suggested that the resiliency training model be planned and considered by psychologists and counselors in hospitals to improve the relationship between personalities and reduce anxiety and stress control.

References:

- Akdas Mitrani, A.T. (2010). Outcome of anger management training program in a sample of undergraduate student. *Procedia-Social and Behavioral Sciences*, 5(1), 339-344.
- Avanzi, L., Schuh, S. C., Fraccaroli, F., & van Dick, R. (2015). Why does organizational identification relate to reduced employee burnout? The mediating influence of social support and collective efficacy. *Work & Stress*, 29(1), 1-10.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28, 117-148.
- Chou, C. H., Chang, N. W., Shrestha, S., Hsu, S. D., Lin, Y. L., Lee, W. H., ... & Tsai, T. R. (2015). miRTarBase 2016: updates to the experimentally validated miRNA-target interactions database. *Nucleic acids research*, 44(D1), D239-D247.
- Conner, M. (2015). Self-efficacy, stress, and social support in retention of student registered nurse anesthetists. *AANA journal*, 83(2), 133-138.
- Di Giunta, L., Eisenberg, N., Kupfer, A., Steca, P., Tramontano, C., & Caprara, G. V. (2010). Assessing perceived empathic and social self-efficacy across countries. *European Journal of Psychological Assessment*, 26(2), 77.
- Fransen, K., Haslam, S. A., Steffens, N. K., Vanbeselaere, N., De Cuyper, B., & Boen, F. (2015). Believing in "us": Exploring leaders' capacity to enhance team confidence and performance by building a sense of shared social identity. *Journal of experimental psychology: applied*, 21(1), 89.
- Jill, R., Johnson, Henry, C., Emmons, Rachael L., Rivard, Kristen H., Griffin, Jeffery A. (2015). Resilience Training: A Pilot Study of a Mindfulness-Based Program with Depressed Healthcare Professionals. *The Journal of Science and Healing*, 11(6), 433-444.
- Mannix, M. M., Feldman, J. M., & Moody, K. (2009). Optimism and health-related quality of life in adolescents with cancer. *Child: care, health and development*, 35(4), 482-488.
- Martin, A. J., & Steinbeck, K. (2017). The role of puberty in students' academic motivation and achievement. *Learning and Individual Differences*, 53, 37-46.
- Mealer, M., Conrad, D., Evans, J., Jooste, K., Solyntjes, J., Rothbaum, B., & Moss, M. (2014). Feasibility and acceptability of a resilience training program for intensive care unit nurses. *American Journal of Critical Care*, 23(6), e97-e105.

Oconnor, M., Batcheller, J. (2015). The resilient nurse leader reinvention after experiencing job loss. *Nurs Adm*, 39(2), 123-31.

Pahljina-Reinić, R., & Kolić-Vehovec, S. (2017). Average personal goal pursuit profile and contextual achievement goals: Effects on students' motivation, achievement emotions, and achievement. *Learning and Individual Differences*, 56, 167-174.

Parker, P. D., Marsh, H. W., Ciarrochi, J., Marshall, S., & Abduljabbar, A. S. (2014). Juxtaposing math self-efficacy and self-concept as predictors of long-term achievement outcomes. *Educational Psychology*, 34(1), 29-48.

Reid, C., Jones, L., Hurst, C., & Anderson, D. (2018). Examining relationships between socio-demographics and self-efficacy among registered nurses in Australia. *Collegian*, 25(1), 57-63.

Saif A. Educational Psychology: Psychology of Learning and Instruction. 7th edition, Tehran, Agah Publisher, 2013. (Persian).

Simon, P., Connell, C., Kong, G., Morean, M. E., Cavallo, D. A., Camenga, D., & Krishnan-Sarin, S. (2015). Self-efficacy mediates treatment outcome in a smoking cessation program for adolescent smokers. *Drug & Alcohol Dependence*, 146, e100.

Zhang, Z. J., Zhang, C. L., Zhang, X. G., Liu, X. M., Zhang, H., Wang, J., & Liu, S. (2015). Relationship between self-efficacy beliefs and achievement motivation in student nurses. *Chinese Nursing Research*, 2(2-3), 67-70.