The Effect of Life Skills Training on Emotional Intelligence of the Medical Sciences Students in Iran

Hamideh A. Lolaty, Sharbanoo Ghahari1, Abdolhakim Turgari2, Jabbar Heydari Fard

ABSTRACT

Introduction: Training successful students and providing higher educational levels are among the important purposes of student training in the strategic planning of the twenty-first century, and this has been stressed on more, in recent times. In achieving these objectives, promoting thinking, intellectual abilities, personal qualities and interpersonal skills, or emotional intelligence have been the focus of attention more than before. Unlike intellectual intelligence, emotional intelligence can be developed and strengthened; it seems university years would be a great opportunity for the students to improve their emotional intelligence level. Regarding the differences between the traditional and new teaching methods and their contribution to the development of emotional intelligence, Chieh (1999), stated that emotional intelligence could be achieved through consistent educational efforts.[1]

Transition from high school to academic environment often causes stress for many people.[2,3] Transition from high school education to the academic

INTRODUCTION

Training successful students and providing higher educational levels are among the important purposes of student training in the strategic planning of the twenty-first century, and this has been stressed on more, in recent times. In achieving these objectives,
environment is associated with some emotional and social consequences. The students who come from high school to university are exposed to many stressful events. There are issues such as creating new relationships, changing past relationships with family and friends, learning new study habits according to the new learning environment, and acting as an independent and mature individual (e.g., financial and time management). Perhaps the best evidence of students’ problem with stressful factors is a student’s failure to achieve graduation. Besides, the results of the studies have shown that the stressors play important roles in the decline of academic performance and also academic probation. Probated students’ experience more academic stressors (such as, educational requirements, learning environment, dormitory and studying environment) compared with non-probated students. A large proportion of researches study the academic success of the students and the related factors. However, recent studies concentrate on the impact of the variables, such as, previous school performance in high school or standard measurement of cognitive abilities and determining the predictive power of some variables, such as, emotional intelligence in academic achievement.

Several descriptive and analytical studies have been conducted on determining emotional intelligence and its related factors. In this regard, many studies have confirmed the relationship between good emotional intelligence and academic success, in the transition from high school to university. Parker et al. conducted a study on first-year students in a small Ontario university. The students filled out the short form of Bar-on Emotional Quotient Inventory in the first week of classes. Then the progress of students during the academic year was evaluated. At the end of the academic year, the students who were academically successful with a top grade point average (GPA) and those with a low GPA were selected. Although the two groups were not different in terms of high school GPA, age, and number of course credits, the students with a higher GPA at the university were at a higher level in terms of social and emotional competence.

These results were again confirmed in another study, with another sample of first-year students and with other tools for measuring social and emotional competence. In the field of determining the emotional intelligence of the students and the related factors, some studies have also been conducted in Iran. The study by Akbari and Rezaian (2007), who studied Emotional Intelligence among the students of the Arak University and its relationship with computer anxiety, showed that the Arak University students possessed an emotional intelligence higher than average and lower than excellent. There was a negative significant relationship between emotional intelligence and its sub-components, with regard to computer anxiety \((P=0.01)\). The results of the study by Yousefi on the relationship between emotional intelligence and communication skills among the Iranian students showed that emotional intelligence was positively associated with communication skills. Despite the aforementioned studies, the studies by Newsome et al., (2000) and Connor and Little (2003), found a weaker correlation between the level of emotional intelligence and academic success.

The difference in the results could be due to sampling methods, sample selection criteria, research tools, and the difference in cultures and social norms of the society the study sample lives in.

Considering the increased rate of emotional and behavioral problems, from low self-esteem to anxiety and depression disorders in children and young adolescents, many parents, scientists, and researchers around the world believe that teaching skills in the field of emotional intelligence to children and students is essential. These skills lead to increased compliance and a greater chance of success, even in situations with serious risk factors. On the other hand, life skills training is defined as personal and social skills, by which people can behave properly with themselves and others. This training has been beneficial in various programs of mental health filed by preventing of many risk factors. Such as, substance abuse, teenage pregnancy, AIDS, and licentious sexual relationship. These skills include several key skills that include: Problem-solving, creative thinking, critical thinking, adaptive interpersonal behaviors, self-awareness, empathy with others, and coping with negative emotions and stressors. These skills contribute to emotional intelligence, which unlike intellectual intelligence, is a flexible one, and can be improved.

Despite the large volume of studies regarding the predictive role of emotional intelligence and its relationship to various educational variables, and the increasing attention given to the role of this variable in students’ psychological and academic development, studies regarding the interventions to enhance emotional intelligence of the students are few. Hence, the present study has been conducted to determine the effect of life skills training on the emotional intelligence of the first-year students of the Mazandaran University of Medical Sciences in the academic year 2007 – 2008, so that by using the results we can take a step toward improving the mental health of the students.
MATERIALS AND METHODS

The study protocol was approved by the Ethics Committee of the Mazandaran University of Medical Sciences. In order to respect the ethical considerations, the researchers were committed to train the students in the control group in life skills for two weeks after the study, using the lecture method. Furthermore, the researchers, based on their own experiences, suggested that the students contact the project managers or those proposed by them through direct contact or email, to solve their problems.

The research was conducted in two phases: This article presents the second phase of the study. In the preliminary stage, the emotional intelligence of 322 first year students of the Mazandaran University of Medical Sciences, from the five faculties of Medicine, Pharmacy, Nursing and Midwifery, Paramedical Sciences, and Public Health was determined in the first academic semester. In the second phase, the study was conducted using pre- and post-test experimental methods with the control group in the waiting list. A total of 39 students who had lower levels of mean and standard deviation of emotional intelligence in the two courses were randomly allocated into two groups of cases (n=20) and controls (n=19). They were selected for the study, after being matched, based on the characteristics of sex, interest level in the field of study, experiencing stressful life events in the past six months, and mean emotional intelligence score [Table 1]. The exclusion criteria for this research included a report of physical and mental illness and a history of participation in life skills training classes.

**Table 1: Frequency, mean, and standard deviation of the confounding variables and the level of emotional intelligence among the first year students in two groups of cases and controls before entering the study during the year 2007**

| Group variable                                                                 | Cases | Controls | Statistical test |
|--------------------------------------------------------------------------------|-------|----------|------------------|
| **Sex**                                                                         |       |          |                  |
| Male                                                                           | 9 (45)| 11 (57.9)| $\chi^2=0.648$, df=1, $p=0.421$ |
| Female                                                                         | 11 (55)| 8 (42.1)|                  |
| *History of experiencing stressful life events in the past six months*         |       |          |                  |
| Yes                                                                             | 12 (60)| 11 (84.2)| $\chi^2=1.28$, df=1, $p=0.257$ |
| No                                                                              | 8 (40) | 8 (15.8) |                  |
| *Level of interest in the field of study*                                      |       |          |                  |
| Yes                                                                             | 14 (70)| 17 (89.5)| $\chi^2=2.26$, df=1, $p=0.13$ |
| No                                                                              | 6 (30) | 2 (10.5) |                  |
| **The overall emotional intelligence**                                          | 356.11 (20.13) | 359.52 (15.53) | $t=0.591$, df=37, $p=0.55$ |

*Figures indicates frequencies and in parentheses are percentage,  
**Figures indicates means and in parentheses are standard deviations.

The methods of data collection included self-reporting while using the research questionnaire, which consisted of Bar-on Emotional Quotient Inventory and demographic data questionnaire.

**Bar-on emotional quotient inventory**

This questionnaire is the first valid cross-cultural assessment tool for the measurement of emotional intelligence, which was developed in 1997, by Bar-on. The questionnaire contains an overall score (emotional quotient), five composite scales, 15 subscales, one positive and one negative impression scale, and one inconsistency scale. The questionnaire is composed of 133 short questions, which are answered using the Likert scale (as never, rarely, sometimes, often, and all the time); each question receives a score between 1 and 5, according to the subjects’ answers. Some of the items are positively and some negatively scored. The raw scores are converted to balanced scores based on an average of 100 and standard deviation of 15. The score change range is almost always between 55 and 145 (+3 standard deviations from the mean), and about two-thirds of the respondents obtain a score (balanced) between 85 and 115. Very high or low scores are almost rare and most people get a score of about 100. Based on the scores, the emotional intelligence can be classified into seven levels. In this research, a high score (balanced score of above 100) represents emotionally intelligent people and those obtaining lower scores indicate a need for improved emotional skills in specific areas. The studies have shown that this questionnaire and its subscales have high levels of internal consistency, validity, and reliability in different cultures. The average Cronbach’s alpha coefficients for all subscales are high: From a low coefficient of 0.69 (social responsibility) to a high coefficient of 0.86 (self-respect), with an overall mean internal consistency coefficient of 0.76. The reliability and validity coefficients, in periods of one and four months, in two groups of subjects in South Africa were 0.85 and 0.75, respectively. The validity studies of EQ-I, which compare it with other valid instruments report a high specific validity coefficient (from $r=0.36$ to 0.58 and rate of -0.72). This questionnaire has also been evaluated in Iran regarding mental health issues. Dehshiri et al. (2003), reported a reliability coefficient of 0.753 for the test, and regarding the validity, he reported eight factors out of a 13-factor structure of the North America samples to be valid in the Persian tests. The cases were trained for life skills in the fields of self-awareness, stress management, interpersonal communication, determination, time management, emotion management, and problem-solving by the research specialized team. To accomplish the above training, the necessary coordination was established...
between team members and the education officials of the faculties; the possible problems in this regard were predicted and the necessary decisions to reduce their effects were taken. The training sessions were conducted once a week for four hours, over two months (i.e., a total of eight sessions) according to the training package. The emotional intelligence in the two groups was measured two weeks after training.

All the data were analyzed using SPSS software version 15. In order to determine the level of emotional intelligence before life skills training in both cases and controls, the independent t-test was applied. To determine and compare the level of emotional intelligence in either groups of cases and controls, before and after training, the paired t-test was used. The confidence coefficient of the study was determined as 95% ($\alpha=0.05$).

**RESULTS**

According to Table 1, the two groups of cases and controls were matched based on sex, experiencing stressful life events in the past six months, level of interest in the field of study, and the level of emotional intelligence before entering the study. The Chi-square test and independent t-test did not show any significant difference between the two groups. Mean and standard deviation of the study units were 21.42 and 2.81; 51.3% of the subjects were female and 59% reported their economic status as being average.

According to Table 2, the differences between emotional intelligence in the pre-test and post-test were statistically significant in the cases, but not in the control group; the mean score of emotional intelligence in the case group increased from 356.11 before training to 445.95 after training. This change was from 359.52 to 362.94 in the control group, which was not statistically significant. Thus, the results of the study showed that life skills training increased the level of emotional intelligence in the cases.

**DISCUSSION**

The findings showed that the mean score of emotional intelligence increased in the case group after training in life skills, and the difference was significant.

Many studies have confirmed the effectiveness of life skills training on high-risk behaviors, the ability to cope with the pressures and development of psychological variables. Sherman et al., (2009) performed a study to evaluate the interventions in the forms of life skills training and peer network training, on reducing substance abuse behaviors and inappropriate sexual behaviors in adolescents suffering from meta-amphetamines abuse; the results confirmed a reduction in methamphetamine use, improvement in appropriate sexual behaviors, and reduced sexually transmitted infections.[18]

Besides, emotional intelligence is associated with having life skills. In this regard, Bastian, Burns and Nettelbeck (2005), conducted a study to determine the relationship between emotional intelligence and having life skills. They selected 246 first-year students to determine the relationship between emotional intelligence and having life skills. These skills included life satisfaction, problem-solving, and coping with stress. The results showed that emotional intelligence was significantly associated with the skills of life satisfaction, problem-solving, and coping with stress. The relationship between emotional intelligence and life skills showed that higher emotional intelligence was significantly correlated with higher life satisfaction ($r=0.51$), coping with stress ($r=0.36$) and problem-solving ($r=0.55$), and lower stress ($r=0.25$).[19]

However, no research has been conducted in the field of increasing emotional intelligence through training of life skills promotion. Wong et al. (2007), indicated the need to have interventional researches on determining the effectiveness of training on promoting the level of emotional intelligence, and the necessity of studies with cases and controls, to compare the level of emotional intelligence before and after training.[20]

It was revealed in the present study that life skills training could lead to increased emotional intelligence. Considering the study results of the relationship between high emotional intelligence and mental health — reduced unhealthy behaviors, increased power of coping with the problems, and academic success — it can be concluded that life skills training could lead to improved mental health and reduced unhealthy behaviors, through its impact on emotional intelligence.

In conclusion, the results of this study can be used to help in the improvement of the students’ mental health and their ability to deal with inappropriate conditions.
Hence, it is suggested that life skills training, as one of the most important educational issues, must be paid more attention to, and also the students' mental health and emotional intelligence can be improved by continuing this education, along with holding counseling sessions on students’ problems.

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