Self –efficacy, academic achievement and happiness

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Abstract

Introduction: Happiness is a multifaceted construct that has recently been the subject of growing attention in the field of positive psychology and researchers have strived to identify its underlying factors. The search for happiness can be said to underlie all human behaviors. So, the aim of the present study is to investigate the relationship between self-efficacy, academic achievement and happiness of students and to examine the moderating role of gender in the relationship of the study variables.

Materials and method: self-efficacy and happiness scale was distributed among 200 university students of Bojnourd (100 female and 100 male students) who had been selected randomly. The average score of the last academic year of the students was considered as the measure of their academic achievement score. The reliability and validity of the scale were evaluated respectively through test-retest coefficient and factor analysis and correlation of the total score with the subscales.

Results: The results established the psychometric properties of the scale. For data analysis, the Pearson correlation coefficient and regression analysis were used. Only happiness was able to predict self-efficacy. Also, the moderating role of gender was approved, and only in the group of male student both efficacy variables (positive and significant) and academic achievement (negative and significant) were able to predict happiness.

Conclusion: The results showed that the self-efficacy could predict happiness in both male and female students, whereas happiness was a predictor of academic achievement only in male students.

Please cite this article as:

Rahimi Pordanjani, T., Yahyanezhad, F., & Moharer, A. (2014). Self –efficacy, academic achievement and happiness. *International journal of education and applied sciences, 1(4)*, 181- 188.

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1. Introduction

Understanding individual differences in school achievement is central to designing educational environments which maximize each student's learning and success (Tanhaye Reshvanloo & Hejazi, 2014). One of the variables that explain these individual differences is happiness. The pursuit of happiness or mental well-being is the foundation of human behavior. Human beings have always been in search of happiness and other variables such as General Health, psychological and social wellbeing (Mahdian, Tanhaye Reshvanloo., Zahmatkesh, & Javidi, 2014).

According to Carr (2004), happiness is composed of three main components: positive emotion, life satisfaction, and the absence of negative emotions such as depression and anxiety. In addition Argyle and Lu (1990) found that establishment of positive relations with others, purposefulness of life, personal growth, love for others, positive recognition, social commitment, positive mood, sense of control over life, physical health, self-approbation and mental alertness are the main components of happiness. As such, in the analysis of the concept of happiness, theorists often refer to both cognitive and emotional component (Abedini, 2002).

Cognitive components mainly deal with life satisfaction, Emotional Intelligence and Personality traits as predictors of Academic Performance (Rajaeepour & Mohammadi, 2014). Whereas emotional components mainly address modes such as laughter, humor and the balance between positive and negative emotions. Several factors have been found to influence health-related quality of life and happiness including self- efficacy and academic (Keramati, 2014 a).

According to a theory that Salovey and Mayer (1990) Academic success of the students has a positive relation to higher level of emotional and social competencies (Parker, Evangelou & Eaton , 2005). Obtaining high scores, means that students are more likely to adopt reflection, appraisal, social, interpersonal, organization and time-management skills, but if they obtain low, they will be more likely to engage in health-damaging behaviors (Rajaeepour & Mohammadi, 2014).

Academic achievement is seen as the responsibility of educational institutions, which ultimately lead to the progress of students and shape the attitude of parents, teachers, institutions and society. In fact, the future of education is dependent upon the academic achievement of its students. Today, academic achievement is considered as an important indicator for the assessment of educational systems. Moreover, it has always been a critical factor for teachers, students, parents, and the educational researchers (Heydari, 1976).

Another variable that can affect student happiness is self-efficacy, which lies at the heart of the cognitive-social theory of Albert Bandura who defines self-efficacy as ones' belief in one's abilities to organize and perform a series of activities required for managing a variety of conditions and situations. It has been found that a strong sense of personal efficacy is related to better health, higher achievement and better social integration (Scholz, Doña, Sud & Schwarzer, 2002). People's beliefs in their efficacy play an important primitive role in health. Life-style habits and environmental hazards contribute substantially to health status and functioning. This enables people to exercise some behavioral control over the quality of their health (Abolmali & Barkhordari, 2014). Self-efficacy makes a difference in how people feel, think and act (Keramati, 2014$_b$)

Generally it is showed that increased levels of general self-efficacy are often accompanied by mental health. Muris (2002) showed that there is a positive relationship between self-efficacy and mental health in high school students

In other words, self-efficacy is one's belief in one's ability to succeed in specific situations. Bandura argues that this belief determines the thinking, behavior and emotions of individuals (Bandura, 1997; Rajabi, 2006).

Several researchers have examined the relationship between self-efficacy and happiness including Argyle and Lu (1990) and Francis (1990). They found a positive relationship between self-efficacy and happiness, suggesting that individuals with high self-efficacy have greater ability to communicate with others (Parsaee, 2009).

A study of factors influencing students' happiness

suggested that enhanced confidence, numerous friends, improved academic status and self-efficacy promoted the level of happiness of students (Cheng & Furnham, 2002). The studies of Myers and Diener (1996) indicated that happy individuals had high self-esteem, stronger relationships, meaningful religious beliefs as well as a healthier, efficient and prolonged life compared to others. In fact, recent researches suggest that happiness is contagious and transferrable to others. It seems that self-efficacy and academic achievement are important variables in this field. Academic achievement has been the subject of ongoing attention of researchers as it has been found to be an indicator of student compatibility with university and their future success. Academic achievement is a manifestation of the student academic status which may express the average score of a student in a particular subject or the average scores of different courses over a specific period (Abedini, 2002).

Education system seeks to utilize its maximum facilities to encourage students to achieve greater academic success. However, the question is whether greater academic success is tantamount to enhanced mental health and greater happiness?

Okun, Levy, Karoly and Ruehlman (2009) investigated the relationship between student grades and happiness, reporting that students with lower grades experienced low levels of happiness and tolerated greater degree stress. Nordtveit(2009) compared the level of happiness experienced by European and Chinese students, concluding that given the high emphasis of Chinese education on the personal development, Chinese students experienced higher level of anxiety compared to their European counterpart, a condition which was especially evident among students with higher averages (Heydari, 1996). Another factor influencing student happiness is self-efficacy, which determines how committed and serious individuals are in their activities, how persistent they are in the face of problems and how successful they are in dealing with difficult situations.

Self-efficacy beliefs also impact the thought patterns and emotional reactions of individuals: people with low self-efficacy may believe that

accidents and events are more difficult than they really are which in turn increases their stress, depression, and problem solving strategies. High self-efficacy, on the other hand, promotes calmness when dealing with difficult tasks and activities. On the whole, self-efficacy beliefs predict the undertaking a challenging tasks by individuals.

For these reasons, Bandura suggests that self-efficacy beliefs play a key role in agency (individual beliefs about one's ability). Moreover, Bandura regards self-efficacy as one of the cognitive processes through which a host of social behaviors and personal qualities are developed (Parsaee, 2009). Several scholars have noted the connection between the sense of self efficacy and happiness including Argyle and Lu (1990). Further, studies show that individuals with high self-efficacy hold a more accurate perception of their psychological and mental traits. They are more comfortable communicating with others, express their positive and negative emotions, concerns, hopes and dreams more conveniently and find suitable social protection. In fact, they have a significant ability to analyze events and are able to manage their emotions to achieve a particular goal (Foladchang, 2003). Given the importance of happiness and its positive outcomes for students in Iran, the main question of this study is as follows:

Are self-efficacy and academic achievement predictive of happiness?

As a social system and the foundations of a society, family is the smallest social unit which is built upon legal and religious relationships of men and women. Parents are tasked with upbringing and education of their children, establishing a healthy relationship among family members and helping the independence of children. If properly executed, this upbringing and education promote the self-efficacy of children and therefore improve their academic achievement. On the other hand, some psychologists believe that the sense of self-efficacy is the main factor required to achieve happiness. The lack of self-efficacy in communications is manifested in form of embarrassment, shame, exaggerated egoism, the need to flaunt and the desire to win the praise and affirmation of others. Some psychologists maintain that discomfort and

lack of happiness degrade the self-efficacy and academic achievement of individuals. That is, there is a causal relationship between happiness, academic achievement and self-efficacy (Parsaee, 2009).

The results of this study have several implications for parents, teachers and other people involved in the education of children. They should be aware of the emotions and needs of children and take necessary measures to improve their self-efficacy, academic achievement as well as happiness, psychological well-being and self-actualization. Furthermore, the results of this research can be helpful for counseling and psychology researchers and students for further studies in this field.

2. Method

2.1. Participants

In the present study, the population included all male and female undergraduate students in Bojnourd University who were studying in the academic year 2012-2013. Sample study consisted of 200 randomly selected students (100 male and 100 female) of Bojnourd University. Ages ranged from 18 to 25; the mean age of the participants was 20.5 year (SD= 1.38 year).

2.2 Measurement

To collect the required information on self-efficacy and happiness, the present study used the following two scales:

2.2.1. General Self-Efficacy Scale

General Self-Efficacy Scale, which was developed by Schwartz and Jerusalem (1979), is comprised of 10 items that measure the self-efficacy of participants on a one to four scale using 4-point Likert scale. The reliability coefficient of the questionnaire has been measured by several researchers using Cronbach's alpha. Fouladchang (2003) reported a reliability of r=0.83, Parsaee(2009) reported are liability of 0.73 and Rajabi (2006) reported a reliability coefficient of 0.82 for psychology students of Shahid Chamran University and 0.84 for psychology students of Azad University of Marvdasht.

In the present study, Cronbach's alpha coefficient was used to measure the reliability (r= 0.85).

Also Rajabi (2006) achieved a validity of 0.49 for the scale using optimistic attributional style for a group of students, 0.45 for perceived challenges in stressful situations and 0.58 for self-regulated teachers, which were all significant. Fouladchang (2003) used the correlation of the above instrument with academic self-efficacy scale as an indicator of the validity, reporting a correlation of 0.56 and a reliability coefficient of 0.41.

2.2.2. Oxford Happiness Scale

A preliminary version of this questionnaire was designed by Argyle, Martin and Crossland (1989) as a means of measuring personal happiness. Argyl and Lu (1995) attempted to promote some properties of the scale. The questionnaire contained 29 items which were the opposite of items in Beck Depression Inventory. Hills and Argyle (2002) presented a 29-item questionnaire on a 6-point Likert scale called Oxford Happiness Inventory. A score of 1 to 5was assigned to each item and the happiness score of an individual was the sum of the scores obtained from all items. Accordingly, a minimum score of 29 and a maximum score of 145 could be achieved in the test. The validity and reliability of the questionnaire has been examined in several studies. Argyl et al., (1989) evaluated the reliability of the questionnaire using Cronbach's alpha reliability, reporting a reliability of r=0.90. Also Alipur and Noorbala (2008) reported a reliability coefficient of r=0.93 using Cronbach's alpha coefficient.

HadiNejad and Zare (2009), in their attempt to standardize Oxford Happiness Questionnaire, reported a reliability coefficient of r=0.87 for students in Zanjan Province. In the present study, the validity of this scale was not measured and a reliability coefficient of r=0.was achieved using Cronbach's alpha coefficient.

3. Results

Descriptive findings of the study variables include mean and standard deviation happiness (M=45.34, SD=13.54), self efficacy (M=28.47, SD=5.23), and academic achievement (M=15.37, SD=1.54). In order to answer the first research hypothesis about the ability of self-efficacy to predict happiness, the Pearson's correlation coefficient was used. The result indicate that correlation between self-efficacy

and happiness is 0.386, which is significant (p<0.0001). Accordingly, the first hypothesis is confirmed. That is, there is a significant between relationship between self-efficacy and the happiness of students in Bojnourd University.

Also, in order to answer the second research hypothesis about the role of academic achievement in predicting happiness, the Pearson correlation coefficient was used. The results indicate that correlation between self-efficacy and academic achievement is 0.097, which is not significant at0.001 level (P= 0.273). As such, the second research hypothesis is rejected. That is, there is not a significant relationship between self-efficacy and happiness among students of Bojnourd University. To answer the third research hypothesis, i.e., whether self-efficacy and academic achievement can predict happiness, multiple regression method was used. The results of regression equation are shown in Table 1.

Table1. Results of multiple regressions about the prediction of happiness from academic achievement and self-efficacy

Predictor variable	P<	t			R
Self-efficacy	0.0001	6.09	0.405	0.169	0.411
Academic achievement	N.S.**(0.032)**	2.15	0.143		

As shown in Table 1, the regression of predicting happiness from academic achievement and self-efficacy is significant (F=19.51). Self-efficacy with a beta coefficient of 0.405 can be a positive and significant predictor of happiness. Academic achievement, however, is not a predictor of happiness, through the beta coefficient of 0.143 is significant. Also, the value of R^2 shows that 0.169 of the variance in happiness is predicted by self-efficacy and academic achievement.

A significant and direct relationship between components of the self-efficacy and happiness among the students of Bojnourd University was found. Therefore, higher scores of Bojnourd's students on self-efficacy scale can predict higher levels of happiness. The findings of this research are consistent with the studies of Lawton, Kleban, Rajagopal and Dean (1992); Levenson, Christensen and Guttmann (1994); Frank (2009); Hills and Argyle (2001), Okun, Levy, Karoly and Ruehlman (2009) and Spangler and Palrecha (2004).

As suggested by the results of the study, self-efficacy beliefs influence the thought pattern and emotional reactions of individuals: people with low self-efficacy may believe that events and accidents are more difficult than they appear, a belief that increases stress and depression and affects their Problem solving strategies, leading to lower level of happiness in life.

They find themselves far from favorable conditions that are necessary for their peace and comfort. High efficacy, on the other hand, helps create a sense of calmness in the face of difficult tasks and activities. Overall, self-efficacy beliefs determine and predict the level of task difficulty perceived by individuals. Thus, self-efficacy becomes an important source of happiness (Parsaee, 2009).

A significant relationship between academic achievement and happiness among students of Bojnourd University was found. That is, higher scores of students in academic achievement scale is not a predictor of happiness. The findings of this research are not consistent with the studies of Wilson, Damiani and Shelton (2002) and Walton, Logel, Peach, Spencer and Zanna (2013).

This inconsistency can be explained in terms of different population and sampling method, cultural difference of participants and improper physical setting and facilities of Bojnourd University. The results of this study suggest that there is a significant and direct relationship between variables of self-efficacy and academic achievement of students in Bojnourd University. In other words, higher scores of students in self-efficacy and academic achievement scales predict higher levels of happiness. These findings are consistent with the studies of Frank (1999), Hills and Argyle (2001) and Argyle and Hills (2000) and Parsaee (2009). In the present study, considering the value of Beta

(0.504), self-efficacy plays a greater role in explaining and predicting happiness. Since self-efficacy can lead to more positive experiences and create a sense of satisfaction, it can be expected to reinforce a sense of happiness. As Bandura (1993) points to this matter, self-efficient individuals experience greater satisfaction in their life. Thus, as suggested by the results of this study, there seems to be a strong relationship between self-efficacy and happiness (Safari, 2013).

4. Discussion

The present study, which was conducted to investigate the relationship between self-efficacy and academic achievement and happiness of students in Bojnourd University, indicated an acceptable state of happiness and self-efficacy in these students. There has been a host of studies on the evaluation of student happiness around the world. For example, in a study conducted by Robbins, Francis and Edwards (2010) on 131 students, the mean raw score of happiness was equal to 75.14± 21.98. Given the fact that they used an earlier version of the scale on a 5-point Likert scale, their findings are almost similar to the results of this study, which is in turn consistent with the results of other studies in this field.

There has been a paucity of studies on evaluating student happiness in Iran and only a few studies including Bahrami and Farzanpour (2011) have addressed this issue. In their study, the mean score of standard deviation was higher than the recommended mean for this index (Safari, 2013).

In generalizing the analyses, we should consider several limitations of the results. First, since the questionnaires were distributed among students at the end of classes, their exhaustion may have influenced their responses to the questions. Second, since this is a correlational study, the cause-effect relationship is not clear, and it is one of the limitations of the study. Third, this study draws on subjective indicators for assessing self- efficacy and happiness. Accurate analysis of student behavior can provide more objective results.

In summary, our finding suggests that Future studies to use other instrument such as interviews other than questionnaires. And so it is suggested that this study be carried out in other cities on more specific samples (e.g. teachers, physicians, staff, etc). Since this is a cross-sectional study, future studies are recommended to use a longitudinal method to provide more accurate predictions about the variations of self-efficacy and academic achievement variables and the predictability of student happiness. Future studies can compare the relationship between self-efficacy, academic achievement and happiness in different age groups (youth, adulthood, middle age, old age).

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