



Designing a Native Happiness Education Package and Examining its Effectiveness on Grit, Hope, Self-Control, Resilience and Academic Procrastination in High School Students

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Abstract: The present study aimed to design a native happiness training package and examining its effectiveness on grit, hope, resilience, self-control and academic procrastination in 10th and 11th grades high school students. The research method was mixed method, which used theme analysis in the qualitative part, and in the quantitative part, it was carried out as a semi-experimental pre-test - post-test - follow-up design with a control group. In the design and compilation of the training package, the positive and Islamic psychology texts were analyzed using the Attride-Stirling's theme analysis method. Then, based on the extracted themes, an educational package was compiled and validated by implementing it on 4 people as a group of evaluators. In order to investigate the effectiveness of training package on grit, hope, resilience, self-control and academic procrastination, 30 students of the 10th and 11th grades were randomly selected and randomly assigned to experimental and control groups (15 students in each group). The experimental group was trained for twelve 90-minute sessions. To collect data, the Oxford Happiness Survey, Duckworth et al.'s Grit Scale, Miller Hope Scale (MHS), Connor and Davidson Resilience Questionnaire, Schneider's Self-Control Questionnaire, and Solomon and Ruth Bloom's Academic Procrastination Scale were used. Hypotheses were investigated using the repeated measures and covariance analysis. The results indicated that the happiness training package increased grit, hope, resilience and self-control and reduced the academic procrastination significantly and the effectiveness of the intervention was maintained until the follow-up period. Overall, the findings support the effectiveness of the happiness training package on motivational and emotional variables in high school students.

Keywords: Happiness training, grit, hope, resilience, self-control, academic procrastination, high school students

Introduction

Adolescence is considered one of the most sensitive and critical stages of life in Iran and other centuries, and people face many problems when entering this stage ([Ahmadi, 2010](#)); For this reason, encouraging the teenager, acquainting him with successful behavior patterns, helping him to choose appropriate goals, strengthening his social skills and avoiding any humiliating behavior, and finally, teaching him the correct ways to overcome life's adversities and control emotions and create happiness are among the most important purposes that can be done to help teenagers ([Afrooz, 2006](#)).

In recent years, with the emergence of positive psychology, one of the topics discussed and studied is positive emotions and positive experiences. The emergence of positive psychology changed the direction of psychological research from diseases to topics such as well-being and happiness ([Alex Linley et al., 2006](#)). It should be acknowledged that happiness is the most important variable in human life; Happiness consists of two basic emotional and cognitive components ([Argyle, 1997](#)). Studies have shown that happy people are those who have a bias in information processing; That is, they process and interpret information in a way that leads to their happiness ([Strack et al., 1985](#)). Therefore, happiness is a concept that has several components, firstly, it has an emotional and emotional component that makes a happy person always happy in terms of mood. Second, it has a social component that leads to the expansion of social relationships ([Snyder, 2002](#)). In another division, happiness has three components, which are: positive emotion, satisfaction with life, and the absence of negative emotions, including anxiety and depression. According to another study, positive relationships with others, purposeful life, personal growth, loving others and loving nature are components of happiness ([Argyle, 1997](#)).

[McMahon \(2008\)](#) believes that happiness means "we can be happy, we will be happy, we must be happy" and [Veenhoven \(1991\)](#) defines happiness as the overall quality of life as a desirable life. Happiness arises when a person feels more satisfied with himself and his surroundings ([Sharifi, 2022](#)). Happiness was affected by factors such as different dimensions of personality ([Costa Jr & McCrae, 1996](#)); financial situation; family life; Physical health; employment; coping strategies and self-efficacy level ([\(Easterlin, 2006\)](#); the meaning of life ([Popa-Velea et al., 2021](#)) and religious orientation ([Lewis et al., 2005](#)). Also, happiness has an important effect on people's success. Happy people have an optimistic attitude towards the events and events around them and try to use these events optimally instead of having a negative orientation towards the events around them ([Zidanšek, 2007](#)). [Lyubomirsky et al. \(2005\)](#) have described happy people as more successful, physically healthier and socially active in their research.

Happiness can be effective on students' persistence in pursuing and staying on their goals as well as their academic performance. Grit theory generally explains why and how people, especially students, persist and stay on their goals and try to learn and solve life problems; In other words, how do students guide their learning and also choose cognitive, metacognitive and behavioral strategies that make them continue their efforts and achieve their goals ([Duckworth et al., 2021](#)). [Duckworth \(2019\)](#) believes that if students use persistence and grit in the learning process, they can achieve more effective, lasting and deeper learning.

Also, hope can help students not only in setting academic and life goals, but also in staying to achieve goals ([Edwards et al., 2007](#)). Hope is a word that expresses "the perceived ability to generate ways towards pleasant goals, along with the perceived motivation to use those ways to reach the desired goal" ([Snyder, 2000](#)); which is related to happiness, academic success, success in life and well-being ([Snyder, 2002](#)). Also, hope is influenced by factors such as high self-esteem, appropriate social support, mental and physical health, mental health, positive mood, avoiding stressful life events, cheerfulness and happiness in life affairs ([Sadri Damirchi & Samadifard, 2019](#)).

Another variable rooted in positive psychology is resilience. Resilience is a characteristic that varies from person to person and can grow or decrease over time. Resilience is the result of the interaction of personality characteristics of a person and the environment and it is achieved through education, learning, practice and experience ([Hale & Heijer, 2017](#)).

Resilient people act consciously and alertly in the face of obstacles, have self-awareness and manage their emotions in a healthy manner. Possessing self-confidence, social and family support, ability to solve problems, the ability to establish relationships with loved ones and help others are the characteristics of resilient people ([Fredrickson & Branigan, 2005](#)). Happiness has a significant impact on the components of resilience and provides the means for a better and more successful life.

The characteristic of self-control refers to the ability to tolerate personal motivations, feelings and behaviors to achieve long-term goals. Self-control is often related to things like achieving goals, mental and physical health, and many other important parts of life, such as: interpersonal relationships, going to university, sports, job, and self-esteem ([Inzlicht et al., 2014](#)). Studies have shown that self-control increases a person's happiness. Also, academic procrastination is another characteristic that can be affected by happiness. Academic procrastination refers to the fact that the student engages in activities that are not among his priorities and refuses to do academic and coursework ([Day et al., 2000](#)). Studies have shown that procrastination is not only a time management problem but also a complex process that includes emotional-cognitive and behavioral components ([Day et al., 2000](#)).

In general, and considering the determining role of happiness in increasing the positive psychological characteristics and components in people and reducing the negative psychological components and characteristics, the aim of the current research is to develop a happiness training package for high school students in Iran and to investigate its effectiveness on grit, hope, resilience, self-control and academic procrastination.

Material and Methods

The current research method is a mixed method research which in the quantitative part, the research method is pre-test-post-test and follow-up semi-experimental design with a control group. The statistical population in the quantitative part was all the high school students of Qom city (59925 people), of which 30 people were selected by the combined sampling method (simple random and accessible sampling methods) and were randomly assigned to experimental and control groups (15 people in each group). Ethical considerations include confidentiality of information, obtaining consent from parents to participate in the research, and volunteering to participate or leave the study were observed.

Tools

Oxford happiness questionnaire: This questionnaire was created by [Hills and Argyle \(2002\)](#). This scale has 29 items and its six-point Likert response scale ranges from completely disagree to completely agree. Examining the internal consistency of the Oxford Happiness Inventory showed that all 29 propositions of this inventory had a high correlation with the total score. Cronbach's alpha for the total scale was equal to 0.91. The Pearson correlation between the Oxford Happiness Inventory and the Beck

Depression Inventory and EPQ extraversion and neuroticism subscales were -0.48, 0.45 and -0.39, respectively, which confirmed the convergent and divergent validity of the Oxford Happiness Inventory ([Hills & Argyle, 2002](#)). In Iran, the psychometric characteristics of this questionnaire have been confirmed ([Jokar & Sepehri, 2006](#)).

Duckworth grit scale: The grit scale was developed by [Duckworth et al. \(2007\)](#) in order to assess the level of grit or perseverance of people. The initial form of the test had 17 statements, but after psychometric tests, the number of statements reached 12. The current version has two subscales of interest stability (6 items) and effort-related persistence (6 items). This scale is a self-report tool and the subject must answer each statement on a 5-point Likert scale. [Duckworth et al. \(2007\)](#) have reported Cronbach's alpha coefficient for the scale of 0.89; Also, questions 1, 2, 4, 6, 8, 11, 12, 14, 15, and 17 are scored in reverse form. The developers of this questionnaire have reported its validity and reliability as satisfactory ([Duckworth et al., 2007](#)).

Miller hope Scale: The Miller Hope scale (MHS) was developed by Miller and Powers. The initial questionnaire had 40 questions, which were increased to 48 questions in later versions ([Brackney & Westman, 1992](#)). The purpose of this questionnaire is to measure the level of hope in people. This questionnaire is scored on a Likert scale from very disagree (score 1) to very agree (score 5). The developers of this questionnaire have reported its validity and reliability as satisfactory.

Schneider's self-control questionnaire: This questionnaire has 25 questions and was made by Schneider (1974) and has 25 true-false questions ([Duckworth & Kern, 2011](#)). A higher score in this questionnaire indicates high self-control. Numerous studies have confirmed the validity and reliability of this questionnaire. The validity of the questionnaire was conducted on an independent sample of 146 students of the University of Minnesota. The reliability of the questionnaire in Iran is equal to 0.82 ([Sheikh et al., 2015](#)).

Connor-Davidson Resilience Scale: Connor and Davidson's resilience questionnaire has 25 items that are scored on a Likert scale between zero (completely false) and five (always true) ([Connor & Davidson, 2003](#)). A higher score in this questionnaire indicates high resilience. This scale has been standardized in Iran by Mohammadi (2004). He used Cronbach's alpha method to determine the reliability of this scale and reported a reliability coefficient of 0.89 ([Rahimian Boogar & Asgharnejad Farid, 2008](#)).

Solomon and Ruth Bloom academic procrastination scale: This questionnaire was created by Solomon and Bloom in (1984) and called it the academic procrastination scale ([Yockey, 2016](#)). This scale was used by [Hosseinchary and Dehghani \(2008\)](#) for the first time in Iran. This scale has 27 items that examine three components: the first component, preparing for exams; it contains 8 questions. The second component is preparation for assignments and includes 11 items, and the third component is preparation for end-semester papers, which includes 8 items. A higher score in this questionnaire indicates greater academic procrastination. [Hosseinchary and Dehghani \(2008\)](#) obtained the reliability coefficient of the questionnaire at 0.73 using Cronbach's alpha method.

Execution method

Designing and developing the happiness training package: In the qualitative part for compiling and preparing the happiness educational package, scientific texts (articles and books) related to happiness were examined using the Sterling theme analysis method. In addition, the age and cognitive and emotional state of teenage students and the opinions and suggestions of experts in this field were considered in the design and compilation of the educational package. In compiling this educational package, 8 educational games, poems and stories were included. In order to check content validity, the educational package was reviewed by ten experts in this field, their suggestions were applied and its problems were fixed. Then, the training package was implemented as a test. The purpose of this stage was to modify the educational package and adapt it to the characteristics of the students and solve possible unforeseen problems. For this purpose, the educational package was implemented on 4 high school students and its problems and deficiencies were resolved. After solving the problems, its final form was prepared and ready for implementation for training sessions. In addition to content validity, in order to check the construct validity of the educational package, its effect on increasing happiness was investigated and the educational package also showed its effectiveness in increasing happiness.

Implementation happiness training package: In order to determine the effectiveness of the happiness training package in increasing students' grit, hope, resilience and self-control and reducing their academic procrastination, a pre-test was taken from the subjects before the intervention. Then, 13 organizing themes were taught to the experimental group during 12 training sessions, 3 times a week. 90 minutes of time was allocated for each session. In each session, ten minutes before the start of training, the exercises of the previous session were reviewed, and the remaining time of the session was spent teaching new materials. All training sessions were conducted by the researcher. At the beginning of each session, the assignments of the previous session were reviewed, and at the end of each session, students were given educational feedback on the level of progress in that session. At the end of the intervention program, a post-test was taken from the experimental and control groups. Follow-up tests were conducted two months later. The obtained data were analyzed by SPSS-24.

Results

The descriptive findings of the research variables in the experimental and control groups are presented in Table 1. In addition, in order to investigate the effectiveness of the happiness training package on the variables of endurance, hope, self-control, resilience and academic procrastination, analysis of variance with repeated measurements was used (Tables 2 to 6). Also, before the statistical analysis, the results of Mauchly's sphericity test were applied to check the assumption of sphericity, which was confirmed.

Table 1. Descriptive indices of the scores of research variables in two groups in pretest and posttest

Variable	Index	Experimental group		Control group	
		Pretest	Posttest	Pretest	Posttest
Grit	Mean	39.25	56.50	39.5	54.00
	SD	9.1787	7.9490	3.6400	3.65
Hope	Mean	182	222.25	180.75	180.5
	SD	10.0995	6.44	11.9268	13
Resilience	Mean	62.75	89.5	62.25	61.75
	SD	7.5952	3.3541	13.8089	14.0956
Self-control	Mean	12.75	18.75	12.75	12.75
	SD	1.9202	1.4790	0.8291	0.8291
Academic procrastination	Mean	86.75	52.75	87	86.25
	SD	16.7537	8.0738	15.7321	14.6095

Table 2. The results of the Repeated measures ANOVA to investigate the effectiveness of the happiness training package on grit

Source	SS	DF	MS	F	p	Eta	power
Time	291.075	1.01	286.93	10.94	0.002	0.28	0.92
Group membership	2423.21	1	2423.21	29.23	0.001	0.51	1
Time * Group	258.15	1.01	253.89	9.68	0.004	0.26	0.91
Error	746.75	28.47	26.23				

The results of the Repeated measures ANOVA show that based on the F value, the time factor had a significant effect on students' grit scores ($P<0.001$). The effect size shows that the time factor explains 28% of the variance in the variances of grit scores. Also, based on the F value, the effect of group membership (happiness training package) on grit scores is significant ($p<0.001$). The effect size shows that group membership (happiness training package) explains 51% of the changes in grit scores.

Table 3. The results of the Repeated measures ANOVA to investigate the effectiveness of the happiness training package on hope

Source	SS	DF	MS	F	p	Eta	power
Time	3992.62	1.33	2984.77	9.06	0.002	0.25	0.90
Group membership	5696.17	1	5696.17	14.14	0.001	0.30	0.99
Time * Group	3935.02	1.33	2941.71	8.93	0.002	0.25	0.92
Error	12331.68	37.45	329.24				

The results of the Repeated measures ANOVA show that based on the F value, the time factor had a significant effect on students' hope scores ($P<0.001$). The effect size shows that the time factor explains 25% of the variance in the variances of hope scores. Also, based on the F value, the effect of group membership (happiness training package) on hope scores is significant ($p<0.001$). The effect size shows that group membership (happiness training package) explains 30% of the changes in hope scores.

Table 4. The results of the Repeated measures ANOVA to investigate the effectiveness of the happiness training package on resilience

Source	SS	DF	MS	F	p	Eta	power
Time	1555.46	1.31	1180.29	10.87	0.002	0.25	0.90
Group membership	2766.67	1	2766.67	9.33	0.005	0.24	0.90
Time * Group	1502.22	1.31	1139.89	10.67	0.002	0.25	0.91
Error	7411.64	36.90	200.85				

The results of the Repeated measures ANOVA show that based on the F value, the time factor had a significant effect on students' resilience scores ($P<0.001$). The effect size shows that the time factor explains 25% of the variance in the variances of resilience scores. Also, based on the F value, the effect of group membership (happiness training package) on resilience scores is significant ($p<0.001$). The effect size shows that group membership (happiness training package) explains 24% of the changes in resilience scores.

Table 5. The results of the Repeated measures ANOVA to investigate the effectiveness of the happiness training package on self-control

Source	SS	DF	MS	F	p	Eta	power
Time	121.95	1.23	98.93	28.21	0.001	0.50	1
Group membership	196.54	1	196.54	25.25	0.001	0.47	1
Time * Group	103.02	1.23	83.57	23.83	0.001	0.46	1
Error	121.02	34.51	3.50				

The results of the Repeated measures ANOVA show that based on the F value, the time factor had a significant effect on students' self-control scores ($P<0.001$). The effect size shows that the time factor explains 50% of the variance in the variances of self-control scores. Also, based on the F value, the effect of group membership (happiness training package) on self-control scores is significant ($p<0.001$). The effect size shows that group membership (happiness training package) explains 47% of the changes in self-control scores.

Table 6. The results of the Repeated measures ANOVA to investigate the effectiveness of the happiness training package on academic procrastination

Source	SS	DF	MS	F	p	Eta	power
Time	891.82	1.17	765.50	26.35	0.001	0.48	1
Group membership	1629.87	1	1629.87	13.48	0.001	0.33	0.99
Time * Group	923.82	1.17	789.86	27.29	0.001	0.49	1
Error	947.69	32.75	28.93				

The results of the Repeated measures ANOVA show that based on the F value, the time factor had a significant effect on students' academic procrastination scores ($P<0.001$). The effect size shows that the time factor explains 48% of the variance in the variances of academic procrastination scores. Also, based on the F value, the effect of group membership (happiness training package) on academic procrastination scores is significant ($p<0.001$). The effect size shows that group membership (happiness training package) explains 43% of the changes in academic procrastination scores.

Also, the pairwise comparisons of the dependent variables average (grit, hope, self-control, resilience and academic procrastination) in the three stages of pre-test, post-test and follow-up showed that there is a significant difference between the average scores of the pre-test stage and the post-test and follow-up of all variables. Based on this, the happiness training package has been able to significantly change the post-test and follow-up scores compared to the pre-test stage, and this change has been maintained until the follow-up period.

Discussion

The findings of the present study showed that the validity of the happiness training package was confirmed by experts. Also, according to the findings, the happiness training package has been effective in increasing grit, hope, resilience and self-control and reducing academic procrastination. The findings are consistent with previous studies ([Bullough, 2011](#); [Duggan et al., 2016](#); [Naderi et al., 2021](#); [Ramezani & Gholtash, 2015](#); [Shah et al., 2017](#); [Singh & Jha, 2008](#); [Wiese et al., 2018](#); [Witvliet et al., 2019](#)). In explaining these findings, it can be said that the happiness training package is effective on life satisfaction, well-being and improvement of social structures, and as a result, increasing happiness, grit, hope, resilience and self-control and reducing academic procrastination. It is assumed that the cause of many unhappiness is rooted in the lack of correct understanding of happiness and its components. This lack of recognition can cause incorrect behaviors and actions, and these behaviors also cause incorrect social reactions and inappropriate schemas in the individual (creating a vicious cycle of behavior). Teaching happiness is about making changes in schemas and also creating appropriate behaviors in the individual. Also, happiness makes a person stick to his goals, which actually leads to an increase in students' grit and hard work, which also increases their well-being and quality of life. On the other hand, the components of the happiness package by affecting the behaviors, attitudes and emotions related to hope, resilience and self-control have led to the improvement of these characteristics in students. In addition, teaching happiness with motivation helps students to improve their performance in doing assignments and preparing end-of-semester assignments.

Beside the obtained findings, the present study has some limitations. One of the limitations of the current research is that the training was conducted only on high school students in the city of Qom. In order to increase the validity of the happiness education package and increase the generalizability of the findings, it is suggested to investigate its effectiveness on students of other educational levels and in other cities. Another limitation was the use of self-report questionnaires, which may be associated with bias in the participants' responses. It is suggested to use other data collection methods such as observation and interview in future studies

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