

*Original Article***Reliability and validity of the Hope Scale in the Iranian Students****Manijeh Shehni Yailagh, Fatemeh Kianpour Ghahfarokhi, Gholam Hossein Maktabi, Abdolkazem Neasi, and Abdolwahab Samavi***

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ABSTRACT

The purpose of the present study was to assess the reliability and validity of the Iranian version of the Snyder Hope Scale. Using multistage random sampling method, 180 students (90 boys and 90 girls) were selected from first grade of high school. The hope scale was used to measure hope in the students. This scale was carefully translated and corresponded to the main scale by the authors. Then, to examine its validity, confirmatory factor analysis was carried out on its items and its reliability was calculated. Results of study indicate that the scale has appropriate psychometric qualities to be used in Iran. In the end of article, findings are discussed and practical recommendations are presented.

Key words: hope, agency, pathways, reliability, validity

INTRODUCTION

Hope is one of the human's qualities helping him to overcome desperation, follow his objectives and lessens the intolerability feeling of future [1]. In Erikson's theory, hope is one of the basic characteristics of human that is formed in early life. In the first stage of psychosocial development of Erikson's theory, hope is the positive consequence of trust crisis against distrust [2]. In this regard, Snyder et al [3] presented a relatively new cognitive- motivational pattern known as "hope theory". Having changed in recent years [4, 5 and 6], the theory has introduced hope construct which is a significant component in the novice field of positive psychology [7]. Hope reflects the perception of the individual about his/her capacities for transparent conceptualization of the objectives and creation of special strategies to accomplish them. Another function of hope is to trigger and maintain the motivation for applying the strategies. Accordingly, hope construct is made of two components. Agency component of hope, which embraces setting and developing individual objectives and pathways component of hope, implies planning to achieve the objectives [6].

Researchers have shown that teenagers and adults with high levels of hope have better performance in the items related to school, sport, health maintenance, problem solving, and mental well-being [8 and 9]. Hope effectively influences many areas of life, because hopeful individuals are able to determine effective objectives and make appropriate decisions about them. Research results demonstrate that higher hope of an individual is correlated positively with self-esteem and perceived competence and negatively with signs of depression [10]. Similarly, regarding future-orientation, individuals with higher hope levels were more optimistic and more focused on success rather than failure in following their objectives.

Relationship between hope and educational performance has also been studied in several researches. Studies have shown that individuals with high hope have effective performance in educational fields. Scores gained in hope scale is a meaningful predictor of educational performance at all educational grades [11 and 12]. Hope meaningfully anticipated primary school students' progress and Iowa Test of Basic Skills scores [13]. Also, hope anticipated educational progress of pre-high school and high school students [14]. Such relation is also reported for academic students, as well [15]. It was found out that the students with lower hope levels experience higher anxiety in competitive tests [16]. On the other hand, students with high hope levels use more appropriate attributions when facing failure and attribute the failure to low attempt and improper study methods [17]. Generally, based on researches and existing theoretical framework, hope construct plays an important role in educational performance and variables involved in mental health. In some cases, the variable is affected by other variables such as self-efficacy, ethnic identity, and future-orientation [18] and, in some researches; it is studied as

a predictor of future-orientation [18]. Still in other studies it is examined as a predictor of variables such as educational performance and mental health [8].

To measure hope variable, Schneider et al [3] prepared hope scale and studied its psychometric indices. In the present study, this scale is translated for the first time in Iran and its psychometric indices are determined proportionate to Iranian culture. Accordingly, there has been an attempt to examine the validity and reliability of the indices to be used in Iran.

MATERIALS AND METHODS

To determine validity and reliability of hope scale, 180 students (90 boys and 90 girls) were selected from first grade of high school using multistage random sampling method. For the purpose of sampling, at first, six schools of the municipal area 1 and four schools of the municipal area 2 were randomly selected from among the high schools of Bandar Abbas, in a manner proportionate to the number of high schools. Then, desirable number of students was randomly selected relative to the number of first-year students. The hope scale was used to measure hope in the students. The scale includes 8 items ranked based on an eight-point scale from completely wrong (1) to completely right (8). In this questionnaire, the minimum and maximum scores are 8 and 64, respectively. A higher score in the scale shows a higher level of hope. The questionnaire has two sub-scales called hope agency and hope pathways. The former component is measured by items 2, 3, 5, and 7 and the latter by items 1, 4, 6, and 8. An example of the scale items concerning hope agency sub-scale is: "I can find many ways to achieve the things that are important for me". An example of the scale items in hope pathways sub-scale is: "there are many ways to solve a problem". In a study by Schneider et al [3], reliability coefficients of hope agency and hope pathways sub-scales are respectively reported 0.66 and 0.74. Factorial structure of the questionnaire is declared as satisfactory by its developers [3]. In the present study, first, the scale was carefully translated and corresponded to the main scale by the authors. Then, to examine its validity, confirmatory factor analysis was carried out on its items using Momentum Structures Analysis Software (AMOS-16) and Cronbach's Alpha coefficient, Spearman-Brown split-half coefficient and Guttman split-half coefficient were calculated to determine the extent of the tool's sub-scales reliability.

RESULTS

Diagram 1 displays factorial structure of the hope scale in the present study. As observed in Diagram 1, all items have suitable factorial load in running the confirmatory factor analysis of the hope scale and all coefficients are higher than 0.40. In other words, the items significantly affected their own related factor ($P < 0.001$).

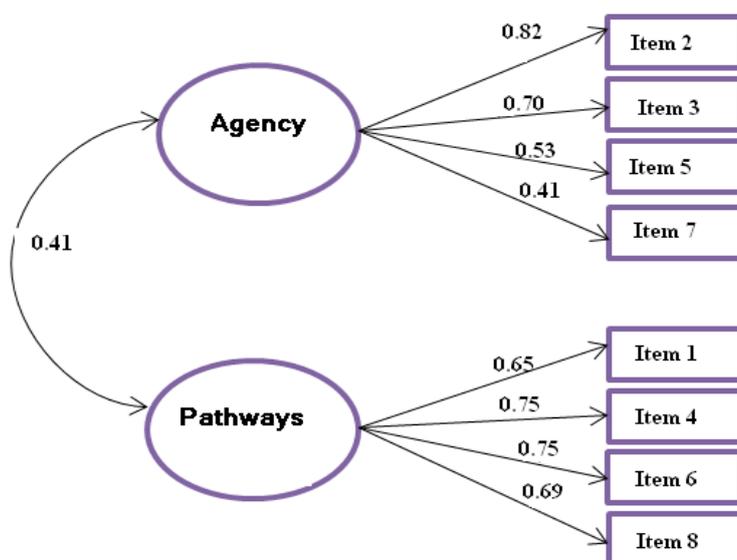


Diagram 1. Factorial Structure of Hope Scale

Values of the fitting indices are shown in Table 1, which shows the model has relatively good fitting. Based on Table 1, the confirmatory factor analysis shows that Root Mean Square Error of Approximation (RMSEA) index coefficients equal 0.08 and Comparative Fit Index (CFI) and Goodness of Fit Index (GFI) are respectively gained 0.94 and 0.95 and other indices also have acceptable values implying partially appropriate fit of the model to data.

Moreover, in this study, Cronbach's Alpha coefficient, Spearman-Brown split-half coefficient and Guttman split-half coefficient were calculated to determine the reliability value of the sub-scales; the respective results are shown in Table 2. This table displays the questionnaire sub-scales' reliability using three methods of

Cronbach's Alpha, Spearman-Brown split-half coefficient and Guttman split-half coefficient. Contents of Table 1 shows that hope questionnaire sub-scales have acceptable reliability coefficients.

Table 1. Model Fit Indices of Hope Scale

Fitting Indices	Value
CMIN (χ^2)	41.26
DF	19
CMIN/DF	2.18
P.	p < 0.002
Goodness-of-fit (GFI)	0.95
adjusted goodness-of-fit (AGFI)	0.90
normed fit index (NFI)	0.90
comparative fit index CFI	0.94
Incremental fit index (IFI)	0.94
Tucker-Lewis (TLI)	0.91
Root-mean-square error of approximation (RMSEA)	0.08

Table 2. Reliability Coefficients of Hope Scale in Present Study

Scale	Cronbach's Alpha	Spearman-Brown split-half	Guttman split-half
Agency	0.66	0.65	0.63
Pathways	0.80	0.77	0.76

DISCUSSION

The present study was carried out on Iranian high school students, and aimed at an examination of the hope scale psychometric indices. Results demonstrated that the scale has appropriate psychometric qualities to be used in Iran. In accordance with the study of Schneider et al. [3], all items of the present study also had suitable factorial load on their related factor and the reliability of the sub-scales has been satisfactory. Accordingly, the scale can be used in psychological and educational researches in Iran. In addition, consultants and psychologists can also use the scale in consulting teenagers and measuring hope level. It is suggested that future studies use this scale to investigate the relationship between hope and variables such as educational performance and mental health of the students.

REFERENCES

- Bernardo, A. B. I. 2010. Extending hope theory: Internal and external locus of trait hope. *Personality and Individual Differences*, 49 (8), 944-949.
- Erikson, E. 1968. *Identity: Youth and crisis*. New York: Norton.
- Snyder, C. R., Harris, C., Anderson, J. R., Hollerman, S. A., Irving, L. M., Sigmon, S. T., Sandra, T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. 1991. The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology*, 60, 570-585.
- Snyder, C. R. 1994. *The psychology of hope: You can get there from here*. New York: Free Press.
- Snyder, C. R. 1999. Hope, goal blocking thoughts, and test-related anxieties. *Psychological Reports*, 84, 206-208.
- Snyder, C. R. 2002. Hope theory: Rainbows in the mind. *Psychological Inquiry*, 13, 249-275.
- Snyder, C. R., & Lopez, S. 2002. *Handbook of positive psychology*. New York: Oxford University Press.
- Snyder, C. R., Lopez, S. J., & Shorey, H. S. 2003. Hope theory, measurements, and applications to school psychology. *School Psychology Quarterly*, 18, 122-139.
- Samavi, A., Araban, S., Javdan, M., RaisSaadi, R. H. and SheikhiFini, A. A. 2012. Comparing hope and academic self-efficacy beliefs in high and low achievement students: A casual-comparative study. *Journal of Basic and Applied Scientific Research*, 2 (8), 7998-8001.
- Snyder, C. R., Hoza, B., Pelham, W. E., Rapoff, M., Ware, L., & Danovsky, M. 1997. The development and validation of the Children's Hope Scale. *Journal of Pediatric Psychology*, 22, 399-421.
- McDermott, D., & Snyder, C. R. 2000. *The great big book of hope: Help your children achieve their dreams*. Oakland, CA: New Harbinger Publications.
- Andrews, P. 2010. Hope and the many discourses of education. *Cambridge Journal of Education*, 40 (4), 323-326.
- Snyder, C. R., Cheavens, J., & Sympson, S. C. 1997. Hope: An individual motive for social commerce. *Group Dynamics: Theory, Research, and Practice*, 1, 107-118.

14. Lopez, S. J., Bouwkamp, J., Edwards, L. E., & Teramoto Pedrotti, J. 2000. Making hope happen via brief interventions. Presented at the 2nd Positive Psychology Summit in Washington, DC.
15. Chang, E. C., & Banks, K. H. 2007. The color and texture of hope: Some preliminary findings and implications for hope theory and counseling among diverse racial/ethnic groups. *Cultural Diversity & Ethnic Minority Psychology*, 13(2), 94-103.
16. Onwuegbuzie, A. J., & Snyder, C. R. 2000. Relations between hope and graduate students' studying and test-taking strategies. *Psychological Reports*, 86, 803-806.
17. Adelabu, D. H. 2008. Future time perspective, hope, and ethnic identity among African American adolescents. *Urban Education*, 43(3), 347-360.