Turkish version of the Short Depression-Happiness Scale (SDHS): A validity and reliability study

Depresyon ve Mutluluk Ölçeği- Kısa Formu (DMÖ-KF) Türkçe versiyonu: Geçerlik ve güvenirlik çalışması

Fatma Sapmaz[1] Selin Temizel[2]

Abstract

The current study aims to adapt the Short Depression-Happiness Scale (SDHS) to Turkish culture and to investigate the psychometric characteristics of this scale. There were 380 respondents (179 female/199 male) ranging in age from 16 to 78 years. Confirmatory Factor Analysis (CFA) was used to explore construct validity of the SDHS and was correlated with OHQ-SF and SWLS as part of criterion-related validity. The reliability of the SDHS was analyzed by the internal consistency method. According to DFA results, that was conducted to determine whether the one-factor construct of the SDHS could be verified. Goodness of fit indices showed that a one-factor construct of the scale was also confirmed. Criterion-related validity analysis found that there were significant relationships between the SDHS and other measurement tools with regard to evaluating happiness. The internal consistency coefficient was .80. Findings suggest that the Turkish form of the SDHS has a one factor construct, which could be used as a valid and reliable measurement tool for evaluating depression and happiness.

Keywords: Depression and happiness scale, validity, reliability

Özet

Bu çalışmada Depresyon ve Mutluluk Ölçeği (DMÖ)'nin Türkçeye uyarlanarak psikometrik özelliklerinin incelenmesi amaçlanmıştır. Araştırmaya yaş aralığı 16-78 arasında değişen toplam 380 (179 kadın/ 199 erkek) kişi katılmıştır. DMÖ-KF'nun yapı geçerliğini incelemek için doğrulayıcı faktör analizi yönteminden yararlanılırken, ölçüt bağıntılı geçerlik kapramında ölçeğin OMÖ-K ve YDÖ ile korelasyonlarına bakılmıştır. DMÖ-KF'nun güvenirliği ise iç tutarlık yöntemiyle incelenmiştir. DMÖ-KF'nun tek faktörlü yapısının doğrulanıp doğrulanmayacağını belirlemek üzere yapılan DFA sonucunda elde edilen bulgular, ölçeğin tek faktörlü yapısının Türk örnekleminde de korunduğunu göstermiştir. Ölçüt bağıntılı geçerlik için yapılan analiz sonucunda da DMÖ-KF ile mutluluğu değerlendiren diğer ölçme araçları arasında anlamlı düzeyde ilişkiler bulunmuştur. Ölçeğin iç tutarlık katsayısının ise .80 olduğu saptanmıştır. Elde edilen bulgular, DMÖ-KF'nun Türkçe formunun tek faktörlü bir yapıya sahip olduğunu ve depresyon-mutluluğu değerlendirmede geçerli ve güvenilir bir ölçme aracı olarak kullanılabileceğini göstermektedir.

Anahtar Kelimeler: Depresyon ve mutluluk ölçeği, geçerlik, güvenirlik

[1]Sakarya University Education Faculty, Department of Counselling, Sakarya, sapmazfatma@gmail.com
[2] Ege University Literature Faculty, Department of Psychology, İzmir

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Introduction

Happiness research has been conducted scientifically since the 1980s, although it has attracted the attention of humans since ancient times. Happiness has been a consistent focus of positive psychology, which has scientifically studied many facets of happiness. In light of existing literature, it could be said that happiness has a core value in positive psychological research. Attempts to explore happiness have led to many different explanations about happiness. For instance, Diener (1984) defined happiness as an individual's fulfilment of life, cognitively and sensually. Argyle (1987) also referred to happiness as a frequent positive emotion, such as joy, a high average level of satisfaction over a given period and the absence of negative feelings, such as depression and anxiety. Veenhoven (1991), conceptualized happiness as the degree to which an individual favourably judges the overall quality of his or her life.

Positive psychological research has broached a number of questions, such as what happiness is, how it can be measured, its accessible and its determinants (Doğan, Sapmaz, & Çötok, 2013, in press). Therefore, many measurement tools were developed in order to measure happiness. In happiness research literature, some frequently used scales are: the Affect Balance Scale (Bradburn, 1969), the Oxford Happiness Inventory (Argyle, Martin, & Crossland, 1989), the Positive-Negative Affect Scale (Watson, Tellegen, & Clark, 1988), the Satisfaction With Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), the Subjective Happiness Scale (Lyubomirsky and Lepper, 1999) and a one-item Delighted-Terrible Scale (Andrews & Withey, 1976). The Depression-Happiness Scale, developed by McGreal and Joseph (1993), is also an essential scale used in happiness research.

As interest grows in the international arena, literature on positive psychology and happiness is being emphasised more and more in Turkey. The Oxford Happiness Questionnaire-Short Form (Hills and Argyle¸ 2002), the Satisfaction with Life Scale (Diener et al., 1985) and the Positive-Negative Affect Scale (Watson et al., 1988) are now frequently used in happiness research in Turkey. These types of scales are usually implemented by researchers in order to measure positive situations. On the other hand, while measuring happiness in pathological conditions, depression scales are also used. However, while low scores on depression scales signify an absence of depression, they do not prove the presence of happines absolutely. Hence, a measurement tool ranging from depression to happiness is very useful for both therapy assessments and for scientific research (Joseph, Linley, Harwood, Lewis, McCollam, 2004). Happiness does not necessarily mean the absence of depression. It also includes some positiveeffects and cognitive constructs. Happiness and depression represent two opposite concepts that can be conceptualized as bipolar dimensions (Joseph, et al., 2004). According to Joseph et al. (2004), none of the depression scales were designed to explicitly measure happiness. Similarly, depression scales do not measure the continuity of happiness. The Depression-Happiness Scale, developed by Joseph, et al. (2004), is a bipolar measurement tool intended to measure depression and happiness. According to researchers, this scale is unique since it allows for a bipolar measurement of depression and happiness on a single continuum. The DHS is considered to be a practical measurement tool for positive psychologists who are interested in not only relieving depression, but who are also intent on providing happiness. Furthermore, this scale allows psychologists to evaluate changes occurring beyond the depression-happiness continuum (Joseph, et al., 2004).

Researchers have since developed a short form of scale, for four main reasons (Joseph, et al., 2004). The first reason is the necessity for a shortened version. An abridged version would facilitate the collection of data under time constraints. This is especially important for some sample groups, such as those relating to memory and attention disorders. The second reason is to decrease the time it takes to collect data by observation, interviews or similar methods (e.g., low

education level sample or telephone interviews). The third reason is that short forms do not take up space when there is no more than one variable. Finally, the short version of the scale is useful for identifying changes in the therapeutic process and for minimizing the time necessary for completing self-report scales during therapy. In light of these reasons, this study also aims to adapt the Short Depression-Happiness Scale (SDHS) in to Turkish and to investigate psychometric features in order to make the scale easier and more suitable for patients. The SDHS, which is a practical tool for assessing depression and happiness levels, enables a bipolar measurement of depression and happiness. Furthermore, it evaluates fluctuations in depression-happiness levels. In light of its benefits, researchers are confident that the scale could contribute to positive psychology and depression-happiness research in Turkey.

Method

Participants

There were 380 respondents (179 female/199 male). Two of the respondents did not give information about their gender. The age ranged from 16 to 78 years (M = 33.74, SD = 10.77). Seven respondents are not literate, 132 respondents have primary school education, 98 respondents have high school education, 122 respondents have university education and 21 respondents have a Master's degree. 157 respondents are single, 212 respondents are married and 11 respondents are divorced. All participants completed The Short Depression-Happiness Scale (SDHS). 220 of them responded to the SDHS and the other scales introduced in the measures sections of this paper.

Instruments

The Short Depression-Happiness Scale (SDHS): The SDHS was developed by Joseph et al. (2004). In its original form, the scale had 25 items. The SDHS is a six-item scale. There are 3 negative statements and 3 positive statements. Joseph et al. (2004) reports that the scale is one-dimensional and accounts for 60.27 % of total variance. Factor coefficients of scale items ranged between .70 and .85. Item analysis was conducted in the development period and total item correlation coefficients were found and ranged between .58 and .74. The reliability coefficient was reported as .86 by the internal consistency method. Scores on the six-item scale were found to be highly correlated with scores on the total 25-item DHS (r = 93, p < 001), confirming its convergent validity. The SDHS was found to correlate with the Oxford Happiness Inventory (OHI), (r = .59, p < .001) and the Beck Depression Inventory (BDI), (r = -.68, p < 001). In addition, correlations were also computed between scores on the SDHS and the five personality factors of the NEO Five Factor Inventory. Consistent with DeNeve and Cooper (1998), the SDHS scores were significantly and positively associated with extraversion (r = .58, p < 001) and agreeableness (r = .42, p < 001), and negatively associated with neuroticism (r = -.79, p < 001). Associations with conscientiousness and openness to experience were not significant.

Oxford Happiness Questionnaire-Short Form (OHQ-SF): The OHQ-SF was developed by Hills and Argyle (2002). The scale consists of 8 items. It has a correlation of .93 (p < .001) with the original scale, which consisted of 29 items. The Turkish adaptation of the scale was carried out by Doğan and Çötok (2011). Accordingly, the internal consistency coefficient was determined to be .74, whereas the test-retest reliability coefficient was determined to be .85. The single factor structure of the OHQ-SF was examined by using corrective factor analysis. The goodness of fit indices were determined to be ($\chi 2/df$ = 2.77, AGFI = 0.93, GFI = 0.97, CFI = 0.95, NFI = 0.92, IFI = 0.95, RMSEA = 0.074). The relationships between the OHQ-SF, the Satisfaction with Life Scale (Diener et al., 1985) and the Life Orientation Test (Scheier& Carver, 1985) have been

examined within the scope of criterion related validity and yielded correlations of .61 ($p < .001$) and .51 ($p < .001$), respectively.

Satisfaction with Life Scale (SWLS): This scale was developed by Diener et al., (1985) in order to measure the life satisfaction of individuals. The SWLS is composed of 5 items and has a 7 point Likert type key. The points that can be obtained from this scale range between 5 and 35. High points obtained from this scale indicate high life satisfaction. The Turkish adaptation of the scale was developed by Yetim (1993). Yetim (1993) reported the test-retest reliability of the scale as .85 and the coefficient of internal consistency as .76. The Cronbach alpha internal consistency coefficient of the scale was determined to be .81.

Findings

Confirmatory Factor Analysis (CFA)

CFA was conducted to define a one-directional construct of the SDHS. There are many goodness of fit indices that are used to evaluate the suitability of the model. It is suggested that more than one index be used to confirm the suitability of the model. This is due to the fact that goodness of fit indices can vary in strength and constantly fluctuate. This is important when it comes to evaluating the suitability of the theoretical model and its real parameters (Büyüköztürk, Akgün, Özkahveci, & Demirel, 2004). The present study first investigated the suitability of the model by using a ratio of the chi-square value to the degrees of freedom. Values that were smaller than 3 indicated goodness of fit. Values that were smaller than 5 were considered to be an acceptable fit. Values higher than .95 were regarded as a good fit and values between .90 and .94 were regarded to be an acceptable fit for CFI, GFI, AGFI, IFI, RFI, NFI, NNFI. RMSEA and SRMR values smaller than .05 were regarded as a good fit, while values between .06 and.08 were regarded as an acceptable fit (Hair, Anderson, Tatham, &Black, 1998; Hoyle, 1995; Hu and Bentler, 1999; Kline, 2005; Schermelleh-Engel, Moosbrugger, & Müller, 2003). CFA results showed that goodness of fit indices were: χ *2/df* = (17.31/6) 2.89, GFI = 0.99, AGFI = 0.95, CFI = 0.99, NFI = 0.98, NNFI = 0.97, IFI = 0.99, RFI = 0.95, RMSEA = 0.07 and SRMR = 0.03. These results indicated that a one-dimensional construct of the scale was also confirmed in the Turkish sample. Both scales showed a good level of fit. For more information, see the standardized factor coefficients of CFA in Figure 1.

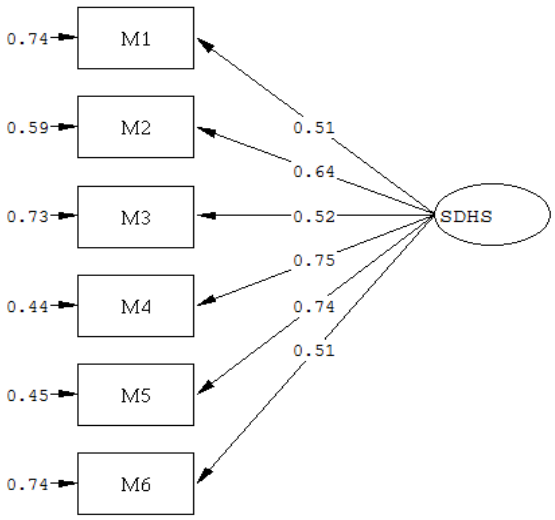

Figure 1. *Path diagram of the DFA model and standardized factor coefficients*

Criterion-Related Validity

220 participants completed the SDHS, the Oxford Happiness Questionnaire-Short Form (OHQ-SF) and the Satisfaction with Life Scale (SWLS). The correlation among these scales was explored. Analysis results demonstrated that a strong correlation existed between the SDHS and the OHQ-SF ($r = .69$, $p < .001$) and a medium-level correlation existed between the SDHS and the SWLS ($r = .56$, $p < .001$).

Reliability

The reliability of the Short Depression-Happiness Scale (SDHS) was examined by the internal consistency method. The internal consistency coefficient was .80. This indicated that the SDHS was adequately reliable.

Discussion

The aim of this study was to adapt the Short Depression-Happiness Scale (Joseph et. al., 2004) in to Turkish and to examine the psychometric properties of the scale. Accordingly, the psychometric properties of this scale were examined using confirmatory factor analysis (CFA), internal consistency and criterion-related validity methods.

The construct validity of the scale was examined by the CFA. The verification of a one-factor construct was examined in its original form. CFA results showed that a one-factor construct was also confirmed in a sample of Turkish participants. Moreover, the criterion-related validity method was also used to determine the validity of the Turkish version of the SDHS. The relationships between the SDHS and two of the other measurement tools used to measure happiness – the Oxford Happiness Questionnaire-Short Form (Hills and Argyle, 2002) and the Satisfaction with Life Scale (Diener et al., 1985) -- were examined. The SDHS and other measures were found to be significantly and positively correlated. These results support the validity of the Turkish version of the SDHS. The reliability of the SDHS was also investigated with the Cronbach Alpha internal consistency method. Results showed that the scale has a sufficient reliability level.

In conclusion, the Turkish version of the SDHS can be used as a valid and reliable measurement tool in happiness research. As opposed to the one-dimensional depression and happiness scales, the SDHS can measure depression and happiness simultaneously. Compared to other one-dimensional scales, the SDHS is a significantly different measurement tool. This scale provides a bi-directional measurement of depression and happiness, which are located at opposite ends of the bipolar spectrum. This aspect of the scale offers researchers the opportunity to observe fluctuations between depression and happiness. This capability allows practitioners and scientific researchers to make more reliable assessments

Moreover, results of representative studies showed that this aspect of the scale also provides more robust results by preventing floor and ceiling effects (Joseph and et al., 2004). In addition, the 6-item form of the scale provides convenience and practicality for researchers, especially in cases wherein there is limited time to collect data. It also is helpful for resolving special situations, such as when participants have difficulty in reading, or to have other specific needs considering the increase in importance of working result or solution oriented in the treatment processes rather than working symptom or problem oriented, it is predicted that contribution of this scale to the field will increase. There is a continually growing interest in positive psychology worldwide. Unlike other subfields, positive psychology is solutions oriented. Treatment is not only supposed to subdue symptoms, but it is also meant to provide lasting results. The SDHS is especially important for the mental health professionals whose aim is not only to remove or to reduce

depression, but to provide and increase happiness. This scale provides reliable assessments and monitoring of the depression-happiness process. Researchers and practitioners can easily apply the scale thanks to its limited number of items. The on-going use of the SDHS is crucial for future work on happiness and depression.

In light of these reasons, the SDHS can be regarded as a practical measurement tool that provides reliable and valid assessments about depression and happiness for both mental health professionals and scientific researchers in the area of positive psychology.

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