Turkish adaptation of the boredom proneness scale short-form

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Abstract

This study examined the basic properties of the Turkish version of the “Boredom Proneness Scale Short-Form” (BPS-SF; Vodanovich, Wallace, & Kass, 2005). A packet of questionnaires were administered to 264 university students. The results of confirmatory factor analysis yielded two factors as it is in the original scale. However, the internal consistency coefficients for two subscales were quite low. The study seemed to indicate that Turkish version of BFS had acceptable level of psychometric qualities. Further studies may need with different samples to understand the problems involved in reliability issue.

Keywords: Boredom, Boredom Proneness Scale Short Form (BPS-SF), Validity, Reliability.

1. Introduction

Boredom is one of the most common affective states experienced in populations. It can be defined as a state which is stemmed from relatively low arousal and dissatisfaction of an inadequately stimulating situation (Mikulas & Vodanovich, 1993) or a personality trait similar to impulsiveness, neuroticism and extraversion rather than a state derived from monotonous situational factors (Vodanovich, 2003). Beside the trait or state debate, boredom has been associated with significant problems in educational, health, organizational, and social settings with numerous negative outcomes such as deviant behavior, truancy, drop out, drug use, eating disturbances, sensation seeking, unsafe driving behavior, procrastination, loneliness, depressive feelings, hopelessness, school and job dissatisfaction, and general dissatisfaction with life (Von Gemmingen et al., 2003; Dahlen, Martin, Ragan, & Robinson, 2009).

Surprisingly, although the concept of boredom has long been considered to be associated with a variety of health and social problems, in psychological literature, it remains a poorly understood phenomenon. The common findings of these studies seemed to be limited by the psychometric properties of the scales in the assessment of boredom (e.g., Boredom Proneness Scale BPS; Farmer & Sundberg, 1986). In recent years, however, there is a growing interest in re-examining the factor structure of Boredom Proneness Scale (Vodanovich, Wallace, & Kass, 2005;
Melton & Schulenberg, 2009). Nevertheless, these studies include different use of methodologies and results (Ahmed, 1990; Gana & Akremi, 1998; Vodanovich & Kass, 1990; Vodanovich et al., 1997). Even though there have been doubts in the factor structure and replicability of BPS, the purpose of this study is to carry out the translation studies of the last version of Boredom Proneness Scale Short Form (BPS-SF; Vodanovich, Wallace, & Kass, 2005) into Turkish and to examine the reliability and validity of BPS-SF.

2. Method

2.1. Participants and Procedure

In this study convenient sampling procedure was used. The participants were 264 university students (141 female, 123 male) from various departments of Afyon Kocatepe University. The mean age of the total sample was 21.70 with the standard deviation of 1.61. The mean ages of female and male students were 21.76 (SD = 1.53) and 22.23 (SD = 1.79) respectively. 41.2% of the students were sophomore students. 21% of the students studied at Art-Science Faculty, 29% of the students studied at Economics and Administrative Sciences, 18% of the students studied at Medical Faculty and Nursing School, 16% of the students studied at Engineering Faculty 8% of the students studied at Educational Faculty and lastly 8% of the students studied at Fine Arts Faculty.

Students were administered a questionnaire packet consisting of BPS-SF (Vodanovich, Wallace, & Kass, 2005), UCLA Loneliness Scale (Russell, Peplau, & Ferguson, 1978), Big Five Inventory (BFI; John, Donahue, & Kentle, 1991), Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983), Social Desirability Inventory (SDI, Kozan, 1983). These packages were randomly distributed to the students in the classroom settings. As a result of this administration, out of 264 students who completed BPS-SF, 85 students also responded to BSI, 54 students to UCLA Loneliness Scale, 68 students to BFI, 68 students filled SDI.

2.2. Instruments

2.2.1. Boredom Proneness Scale (BPS-SF)

The 28 item Boredom Proneness Scale (BPS) was developed by Farmer and Sundberg (1986) as a measure of the tendency to become bored in a true/false format. Vodanovich (1990) changed the original true/false format into the 7-point Likert type ranging from strongly disagree (1) to strongly agree (7), with a neutral midpoint (4) with a minimum score of 28 and a maximum score of 196 in order to increase the sensitivity of measurement. The internal consistency of the 7-point Likert version was found to be adequate (r = .83). Vodanovich, Wallace and Kass (2005) by using exploratory and confirmatory factor analyses decided to omit some items from this 28-item Likert type scale, and proposed a 12-item short form with two subscales: 6 items for Internal Stimulation with .86 internal consistency; 6 items for External Stimulation with .89 internal consistency coefficients. Internal Stimulation refers to the inability to produce interesting activities; External Stimulation refers to the perception of low environmental stimulation.

2.2.2. Big Five Inventory (BFI)

This inventory was developed by John, Donahue, and Kentle (1991). It is a self-report inventory including 44 items scale with a 5-point Likert type. John and Srivastava (1999) reported Cronbach alpha reliabilities ranging from .75 to .90 for traits and 3-month test-retest reliabilities changed between .80 and .90. In Turkey, there have been two adapted scales; one belongs to Sümér (cited in Sümér, Lajunen, & Özkaran, 2005) and another to Alkan (2006). In the
current study, we used Alkan’s (2006) translation which includes Cronbach alpha values ranging from .67 to .89 for the subscales.

2.2.3. UCLA Loneliness Scale

This 20-item self-report scale was developed by Russel, Peplau and Ferguson (1978). It has 4-point Likert type ranged from 20 to 80 scores. The higher scores reflect higher loneliness. It has a high internal consistency coefficient ($r = .96$) and a test-retest correlation over a two-month period was reported as .73. Turkish adaptation was performed by Demir (1989). Cronbach Alpha Coefficient was reported as .96 and test-retest reliability correlation coefficient was found as .94.

2.2.4. Brief Symptom Inventory (BSI)

This inventory is a 53-item 5-point Likert type self-report symptom inventory developed by Derogatis and Melisaratos (1983) to measure the psychological symptoms of both patients and healthy individuals. It is a brief form of SCL-90-R. It includes 9 primary symptom dimensions: Somatization, Obsessive-compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism. Cronbach Alpha coefficients for all dimensions ranged from a low .71 on psychoticism to a high .85 for depression. Test-retest reliability correlation coefficients over a two week period ranged from .68 for somatization to .91 for phobic anxiety. Turkish adaptation was performed by Şahin and Durak (1994) who found Cronbach Alpha Coefficient as .94. Cronbach Alpha coefficients for all dimensions ranged from a low .71 on somatization to a high .88 for depression.

2.2.5. Social Desirability Inventory

Social Desirability Inventory (SDI) which was developed by Kozan (1983) was administered in order to examine the socially accepted responses in completing the scales. This 20-item scale with a true/false format scale is a commonly used one which included desirable opinions and behaviors that most people cannot truthfully claim.

2.3. Adaptation Process of BPS-SF

The first step was the translations of the items into Turkish by four academicians from Psychological Counseling and Guidance who have good command of English. Then back translation was conducted by three English literature experts. All the judges had excellent command of English and translation experience. The recommended changes were made based on the feedbacks given by the judges and two back-translated versions of the instruments were compared with the Turkish translated version. Items were chosen by the researcher, a licensed English translator and her supervisor to assure whether the meaning of each item was maintained.

3. Results

3.1. Confirmatory Factor Analysis

The original two factor model was proposed by Vodanovich, Wallece, and Kass (2005). In order to examine factor structure, confirmatory factor analysis (CFA) was run. Full information maximum-likelihood method in AMOS was conducted due to treat missing data. The goodness-of-fit index (GFI) values .90 or greater indicate an acceptable fit (Schumacker & Lomax, 1996). The comparative fit index (CFI) values above than .90 indicate an acceptable model fit (Hu & Bentler, 1999). For the root mean square error of approximation (RMSEA) a value of .05 or less indicates a good fit (Bryne, 2001). In the current study, results of CFA for two factor as in original model indicated a good model of fit $[\chi^2(53) = 59.985, p > .05; \chi^2/df = 1.132; GFI = 0.94; CFI = 0.94; RMSEA = .030]$. 
3.2. Reliability of BPS-SF

In the present study, it was found that the corrected-item total correlation coefficients of BPS-SF changed between .19 (item 9) and .51 (item 6) for internal stimulation, and .070 (item 10) and .25 (item 7) for external stimulation subscales. Internal consistency coefficients calculated by Cronbach Alpha formula were found as .63 for internal stimulation dimension and .37 for external stimulation dimensions. These coefficient values are quite low making the reliability of the Turkish version of BPS-SF questionable.

3.3. Criterion-Related Validity

In order to test criterion-related validity, Pearson Correlation Coefficients were computed between the Turkish version of BPS-SF, and UCLA Loneliness Scale, BFI, and BSI. Internal Stimulation dimension of BPS-SF was significantly positively correlated with loneliness ($r = .50$), some personality traits conscientiousness ($r = .54$) and neuroticism ($r = .54$), obsessive-compulsive ($r = .35$), depression ($r = .35$), interpersonal sensitivity ($r = .23$); negatively correlated with openness to experience ($r = -.35$) and as well as psychoticism ($r = -.28$). External Stimulation dimension of BPS-SF was significantly positively correlated only with psychological symptoms obsessive-compulsive ($r = .34$), depression ($r = .29$), paranoid ideation ($r = .27$), anxiety ($r = .24$), negatively correlated with somatization ($r = -.26$). These findings were consistent with the findings of the studies of the original scale (Farmer & Sundberg, 1986).

4. Conclusion

The purpose of this study was to conduct the translation studies of the revised form of Boredom Proneness Scale Short Form (BPS-SF) into Turkish and to examine psychometric properties of BPS-SF. As a result, we obtained the same factor structure as in original scale with two factors. Criterion-related validity was also satisfactory. Findings of confirmatory factor analysis seemed to provide empirical evidence for construct validity. Nevertheless, the internal consistency values were quite low contrary to our predictions.

The inconsistent findings of the psychometric properties of Boredom Proneness Scale have been common in the boredom literature. Boredom Proneness Scale (BPS) was developed to address the need for a full-scale measure of the general construct of boredom as a true/false format by Farmer and Sunberg in 1986. Since its development, various factor analytic studies have been conducted with separate methodology and findings. Farmer and Sundberg (1986) proposed a single score of boredom. By using true/false format, Ahmed (1990) conducted an exploratory factor analysis (EFA) and found two constructs: apathy and inattention. Gana and Akremi (1998) used the same format and revealed two factors, which they named internal and external stimulation. Vodanovich and Kass (1990) by using 7-point Likert type format performed EFA and found five factors called as external stimulation, internal stimulation, affective responses, perception of time and constraint. On the basis of this same format, Gordon, Wilkinson, McGrown, and Jovanoska (1997) with EFA found five factors labeled as needs a buzz, low self-regulation, lack of creativity, and restless in restraint. Vodanovich, Watt, and Piotrowski (1997) yielded eight factors as some were subsets of broader external and internal stimulations by using EFA. These factors as perception of time, creativity, external stimulation: monotony, constraint, affect, patience, internal stimulation: attention maintenance, and external stimulation: challenge. Finally, Vodanovich, Wallace and Kass (2005) revised this 28-item Likert type scale, suggested 12-item short form with two subscales: Internal Stimulation and External Stimulation which we adapted into Turkish. There has been extensive variability in methodologies of researchers. Some researchers included items above .30 loadings (Ahmed, 1990; Gordon et al., 1997), others prefer using .40 or greater loadings (Vodanovich & Kass, 1990; Vodanovich et al., 1997). Some researchers used true/false format.
To conclude, besides the debates regarding the conceptual dimensions of the original boredom instruments there is also a question whether Turkish version of BPS-SF is a replicable scale. Further studies are required to clarify the psychometric properties of boredom proneness scale. Some limitations of the study should also be considered. The convenient sampling may influence the generalizability of the findings. Based on these results further studies with different samples are needed in the contribution of boredom research in Turkish psychology literature.

References