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RE-EXAMINATION OF THE PSYCHOMETRIC CHARACTERISTICS OF THE MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL SUPPORT AMONG TURKISH UNIVERSITY STUDENTS

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The effectiveness of the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988) was investigated with a sample of 340 Turkish university students. Results of exploratory and confirmatory factor analyses showed that the 3-subscale structure of the MSPSS was valid. In addition, the results verified that the MSPSS has high internal and test-retest reliability. These results indicate that the MSPSS and its subscales can be used in research related to university students in Turkey.

Keywords: perceived social support, reliability, validity, Turkish students, MSPSS.

Social support has been studied increasingly by many scholars in recent years. The studies on social support have confirmed an association between low levels of social support and poor mental and physical health outcomes (Choenarom, Williams, & Hagerty, 2005; Kuehner & Buerger, 2005). Hogan, Linden, and Najarian (2002) conceptualize support as an exchange between providers and recipients generally in interpersonal relationships. Four main types of supportive social interactions have been described: emotional, informational, social companionship and instrumental (Cohen, 2004). Similarly, social support

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has been conceptualized in many ways. In some studies (Duru & Balkıs, 2007) social support is considered as a way of assessing the social network or network characteristics. In other studies (Zimet, Dahlem, Zimet, & Farley, 1988) it has been examined in order to assess the support sources and the types of support, and still others have used it to measure both the social network and the degree of satisfaction with support (Sarason, Sarason, Shearin, & Pierce, 1987). When it is considered as a multidimensional construct of social support, these different points of view in the literature may be related to differences in the aspects of social support.

Tardy (1985) suggests that *social support* could be defined as *a five-dimensional construct that includes direction, disposition, content, objectivity/subjectivity, and network*. Direction is related to whether support is given or received, content is related to what form the support takes. The network dimension of social support is related to the structures of the social systems. Zimet et al. (1988) propose that these five dimensions, if incorporated in a single instrument, would result in a complex and lengthy questionnaire, which would not be practical to use. In addition, they argue that the complexity and length of the resulting questionnaire may be a disadvantage when multiple measures are being used and participants' time is limited.

Although the MSPSS (Multidimensional Scale of Perceived Social Support; Zimet et al., 1988) was designed to measure the subjective assessment of the adequacy of perceived social support, it can be also used to evaluate perceptions of social support from three important sources of individuals' social lives: friends, a significant other, and family (Duru & Balkıs, 2007). When measuring support sources is a concern, it appears that the MSPSS might also be an important instrument in order to measure support sources for research related to the structural aspects of social support. For example, Levitt et al. (2005) found that students who receive support from multiple sources had more positive adjustment scores than did those receiving support primarily from close family members alone. The results of this study suggest that support from multiple sources may be an advantage in adolescent and adult years in terms of both social and academic aspects. Perhaps multiple sources serve to fulfill different needs of individuals.

The MSPSS has been used to evaluate perceived social support in different samples and different cultures (Dahlem, Zimet, & Walker, 1991; Eker & Arkar, 1995; Zimet et al., 1988), normal and clinic populations (Eker & Arkar, 1995; Eker, Arkar, & Yaldız, 2001), and Mexican, African American and European adolescents (Canty-Mitchell & Zimet, 2000; Edwards, 2004; Zimet, Powell, Farley, Werkman, & Berkoff, 1990). Based on reliability and validity analyses, the MSPSS can be considered as a reliable and valid scale for measuring perceived social support. However, although the MSPSS has been used in

numerous studies to measure the social support in different populations and cultures, the three-factor construction of the MSPSS has not been tested with confirmatory factor analysis in Turkey. Eker et al. (2001) and Duru and Balkıs (2007) assert that we are in need of instruments to measure aspects of the functional dimensions of social support. As a result, the purpose of this study was to retest the psychometric characteristics of the MSPSS in Turkish culture.

METHOD

Participants

A total of 340 Turkish students participated in this study. Participants were undergraduate university students (55% female, 45% male) studying different majors at a Turkish university. The ages of the students ranged from 18 to 28 (M = 18.83, SD = 1.35). In addition, 90 of the 340 total students were retested four weeks after initially completing the questionnaire (48% female, 52% male). This group ranged from 18 to 27 years of age (M = 19.0, SD = 1.07).

Procedures

Once informed consent had been obtained from students who volunteered to participate in the study, the students were administered a packet of surveys during a class period. For the re-test procedure, 90 of the 340 original students agreed to participate in the study a second time. These students were readministered the survey four weeks after the initial administration. Students were assigned a special symbol to match their first and second surveys.

Measures

Demographic Questionnaire The questionnaire was prepared by the researcher. In this questionnaire, participants were asked to report variables such as age and gender.

Loneliness Scale The UCLA Loneliness Scale was used to measure loneliness. Scores on this scale are based on 20 items with a 4-point Likert scale ranging from *never* to *often*. In the present study, the Turkish version of the UCLA Loneliness Scale (Demir, 1989) was used. The reported results of Demir's reliability and validity study were as follows: the test-retest reliability over five weeks was .94. The alpha coefficient was .96. Correlation between the Turkish version of the UCLA Loneliness Scale and the Turkish version of the Beck Depression Inventory (Aydın & Demir, 1988) was .77.

Multidimensional Scale of Perceived Social Support The MSPSS is a self-reported instrument developed by Zimet et al. (1988) that measures perceived support from three domains: family, friends, and a significant other. Respondents use a 7-point Likert-type scale (ranging from *very strongly disagree* to *very*

strongly agree) with each item. Zimet et al. investigated and found internal reliability estimates of .88 for total score and .87, .85, and .91 for the Family, Friends, and Significant Other subscales. Factor analysis of the MSPSS confirmed the three-factor structure of the measure. In the present study, the Turkish version of the MSPSS (Eker et al., 2001) was used. According to Eker et al., the factorial structure of the MSPSS was confirmed and the internal reliability was estimated to be .89 for the total score and .85, .88, and .92 for the Family, Friends, and Significant Other subscales.

Satisfaction with Life Scale The Satisfaction with Life Scale (SWLS) is a measure of life satisfaction developed by Diener, Emmons, Larsen, and Griffin (1985). Respondents use a 7-point Likert-type scale (ranging from *very strongly disagree* to *very strongly agree*) for each item. The SWLS has strong internal reliability (.80 to .89), and moderate temporal stability (.64 to .84) (Diener et al., 1985). In the present study, the Turkish version of the SWLS (Simons, Aysan, Thompson, Hamarat, & Steele, 2002) was used. Correlation between the SWLS and the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983) was found as -.61 (Simons et al., 2002).

RESULTS

Descriptive Statistics

The means and standard deviations for the total revised MSPSS and the three subscales are presented in Table 1. As can be seen, the means for the subscales were as follows: Significant Other (M = 18.12, SD = 7.7), Family (M =23.64, SD = 4.7, Friends (M = 22.55, SD = 4.7), and Total (M = 64.32, SD = 13.17). Means of total support and the three subscales were similar to previously reported levels (Eker et al., 2001).

Group Differences

To determine group differences among male and female students in regard to levels of family support, significant other support and friends support, we conducted a one-way ANOVA test. This revealed significant group differences between female and male students in terms of family support [F (1, 338) = 13.75, p < . 001, for female M = 24.4, SD = 4.6, for male M = 22.5, SD = 4.7] and friends support [F (1, 338) = 8.05, p <. 01, for female M = 23.2, SD = 4.2, for male M = 21.7, SD = 5.1], and total support [F (1, 338) = 7.300, p < . 01, for female M = 66.0, SD = 12.3, for male M = 62.2, SD = 13.9]. Results showed that female students had higher levels of family, friends, and total support than did male students.

Internal and Test-Retest Reliability

The reliability coefficient of the scale was calculated by employing Cronbach alpha and test-retest methods. Internal reliability estimates were calculated for the total scale and three subscales (see Table 1). The results confirmed that the MSPSS has high internal and test-retest reliability. The internal consistency coefficient of the scale was found to be .87. The Significant Other, Family and Friends support subscales demonstrated high internal consistency (.90, .85 and .88, respectively). Ninety of the 340 were retested at the end of 4 weeks after initially completing the questionnaire. The test-retest reliability for the Significant Other, Family, and Friends was .88, .80, and .78, respectively. For the whole scale, the value obtained was .88 ($N = 90$). The MSPSS demonstrated good internal reliability and adequate test stability over a four-week period.

TABLE 1
Descriptive, Reliability, Item-Total Correlations, and Factor Analysis Pattern Matrix for Scores on the Three Social Supports Areas

Items/Subscales	*M*	*SD*	α	Item-Total Correlations	Factor Loading		
					Factor I	Factor II	Factor III
Friends Support	**22.5**	**4.7**	**.879**				
6	5.65	1.28		.65	**.79**	.02	.10
7	5.42	1.43		.60	**.92**	-.02	-.02
9	5.82	1.34		.57	**.82**	.02	-.02
12	5.65	1.42		.62	**.85**	.02	.02
Significant Other	**18.1**	**7.7**	**.896**				
1	4.67	2.27		.60	.16	**.78**	-.03
2	4.67	2.13		.64	.02	**.88**	-.03
5	4.44	2.23		.59	-.03	**.91**	.03
10	4.32	2.22		.59	-.02	**.90**	.02
Family Support	**23.6**	**4.7**	**.854**				
3	6.40	1.13		.47	.03	-.03	**.84**
4	5.81	1.43		.44	-.03	.04	**.91**
8	5.47	1.66		.49	.02	.03	**.78**
11	5.94	1.45		.47	.02	-.03	**.81**
Total	**64.3**	**13.1**	**.867**				

Exploratory Factor Analysis of the Perceived Social Support Scale

The Kaiser-Meyer-Olkin index of adequate sampling was .87 for the sample. This result indicated that the data represented a homogeneous collection of variables that were suitable for factor analysis. Barlett's test of sphericity was significant for the sample, [$x^2 = 2400, 188, df = 66, p < .000$)], which indicated that the set of correlations in the correlation matrix were significantly different from zero and suitable for factor analysis.

The principal components factor analysis with varimax or oblique rotation gave the same number of factors. Only the pattern matrix of oblique rotation is

reported in Table 1. As can be seen in the table, 12 items had high loading on factors for which they were intended. The three factors with eigenvalues greater than 1 explained about 74.04% of the total variance. Factor I (eigenvalue = 5.181, 43.17% variance) was labeled as Friends support. All four items from Significant Other support loaded on Factor II (eigenvalue = 2.417, 20.14% variance). All four items from Family support loaded on Factor III (eigenvalue = 1.287, 10.72% variance).

Confirmatory Factor Analysis of the MSPSS

This is the second study to utilize CFA to assess the MSPSS. In previous research, three-factor and higher order confirmatory models of the MSPPS, including Friends, Family and Significant Others support, were supported in both a sample of university students and a sample of depressed individuals (Clara, Cox, Enns, Murray, & Torgrude, 2003). The appropriateness of a three-factor model representing the three social support areas was evaluated through confirmatory factor analyses using LISREL (Jöreskog & Sörbom, 1989) for structural equation modeling. Structural equation modeling has no single test that best describes the strength of a particular model. The measurement and structural models were evaluated with the following fit indexes: chi-square, the Goodness-of-Fit Index (GFI), comparative fit index (CFI), incremental fit index (IFI), Normed Fit Index (NFI), Relative Fit Index (RFI), and the standardized (RMR). GFI, CFI, IFI, NFI, and RFI fit indexes range from 0 to 1, with values of .90 or higher indicating an adequate fit, a value greater than 0.95 as a very good model fit. For the standardized RMR and RMSEA, values below .05 indicate a good fit (Bentler, 1990; Browne & Cudeck, 1993), and values between .08 and .10 represent a mediocre fit (Siu & Shek, 2005). The following commonly used criteria were utilized in evaluating the adequacy of the models: RMSEA ≤ .10 (Siu & Shek, 2005), Standardized RMR < .05, GFI ≥ .90, CFI ≥ .90, IFI ≥ .90, NFI ≥ .90, and RFI ≥ .90, (Bentler, 1990; Browne & Cudeck, 1993) and χ^2/df 2>-<5 (Marsh & Hocevar, 1985). The fit indexes for the three-factor model χ^2 = 232.15 (df = 51, p <.001), (χ^2/df = 4.5), RMSEA = .10, Standardized RMR = .04, GFI = .90, CFI = .97, IFI = .97, NFI = .96, and RFI = .95. Overall, the fit indexes in this study indicated that the model provided a good fit to the data, with the exception of a low RMSEA value.

Concurrent Validity

To provide support for concurrent validity, correlations were examined by using two prominent scales: the UCLA Loneliness Scale and the Life Satisfaction Scale. The results showed that the total scale score of the MSPSS correlated significantly with measures of loneliness (r = -.59, p < .01, .79, large effect size of 2.5) and life satisfaction (r = .37, p < .01, .90, large effect size of

4.2) on Turkish students. As can be seen in Table 2, all of the correlations with loneliness and life satisfaction measures are in the expected direction, indicating that increased perceptions of support are related to lower levels of loneliness and higher levels of life satisfaction.

TABLE 2
BIVARIATE CORRELATIONS AMONG INTERVAL VARIABLES, (N = 340)

Variables	1	2	3	4	5	6	7
1. Age	-	-.11*	-.03	-.07	-.08	-.00	.08
2. Family Support		-	.20**	.50**	.65**	.38**	-.36**
3. Significant Other Support			-	.43**	.81**	.19**	-.41**
4. Friends Support				-	.79**	.33**	-.60**
5. Total Social Support					-	.37**	-.59**
6. Life Satisfaction						-	-.46*
7. Loneliness							-

* $p < .05$, ** $p < .01$

DISCUSSION

In conclusion, the results from this investigation suggest that the MSPSS is a reliable and valid scale for use in research related to social support among university students in Turkey. Exploratory factor analysis suggested that the three-factor model was replicated within this sample of Turkish university students, providing support for the construct validity of this scale. The range of factor loadings was observed changing from .77 to .89 and three factors explained 74.04% of the total variance. Item-total correlations ranged between .44 and .65. In addition, the results of the confirmatory factor analysis indicated that the MSPSS has three factors. Overall, the fit indexes in this study indicated that the model provided a good fit to the data. These results were in line with those of previous studies through the use of exploratory factor analysis (Dahlem et al., 1991; Edwards, 2004; Eker & Arkar, 1995; Eker et al., 2001; Zimet et al., 1988) and confirmatory factor analysis (Clara et al., 2003).

Results also showed that there are gender differences between male and female university students in terms of social support. Findings suggest that female students have higher support from family and friends, and higher total support than do male students. Previous research showed that female students have higher levels of perceived social support from friends and a significant other (Zimet et al., 1988). On the other hand, Edwards (2004) found no gender difference among Latino youths. Eker et al. (2001) found that male students reported a higher level of significant other support, while female students reported higher levels of support from friends. Taken together, it appears that there are some

inconsistent results in terms of gender in the literature. Future research should again assess for gender differences to better understand this finding. Therefore, the general evaluation of this study is that the MSPSS is a reliable and valid scale for research carried out on university students in Turkey.

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