ABSTRACT

Purpose of the study is to realize the Turkish adaptation, validity and reliability study of Ostracism Experience Scale for Adolescents (OES-A), which was developed by Gilman, Carter-Sowell, DeWall, Adams, and Carboni (2013). The study was conducted with 461 adolescents aged between 14 and 17, in Istanbul. Exploratory and Confirmatory Factor analyses revealed that Turkish version of the scale has preserved the two factor construct of the original scale. OES-A consists of totally 11 items, distributed in two subscales. OES-A is a self-report, five point likert type instrument that measures two ostracism subtypes: Exclusion (6 items) and Ignorance (5 items). Factor loadings of the items are ranged from .83 to .59. All item-total correlations coefficients fell with the range of .75 and .83. Cronbach Alpha Coefficients were calculated as .82 for Ignorance Scale, and .83 for Exclusion Scale. Test re-test coefficients were found to be .65 for Ignorance Scale, and .63 for Exclusion Scale. In order to test the convergent validity of the instrument UCLA Loneliness Scale was administrated to another group of participants (n=343), correlations between two scales is calculated .55 for Ignorance Scale, and .45 for exclusion Scale.

Keywords: adolescence, ostracism experience scale, ignorance, exclusion

ERGENLER İÇİN SOSYAL DIŞLANMA ÖLÇEĞİ: TÜRKÇE GEÇERLİK VE GÜVENİRLİĞİ

ÖZ


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1. INTRODUCTION
Positive social experiences are important for healthy psychological development (Rubin & Asendorpf, 1993). Satisfying social relationships have a crucial importance on mental and physical health, and well-being. Children decide to whom they will include or to whom they will exclude in social settings in early childhood (Killen, Rutland & Jampol, 2009). For some people, exclusion is a daily social experience.

Williams (1997) defines ostracism as being ignored or excluded by others. Ostracism may occur in diverse situations, settings and in various cultures in the world (Williams, 2009; Williams & Nida, 2011). To experience ostracism may result in harmful psychological consequences (Williams, 2001), and some individuals experience it everyday (Nezlek, Wesselmans, Wheeler & Williams, 2012; Williams 2001). Ostracism frustrates four fundamental human needs namely sense of belonging, self-esteem, control and meaningful existence (Williams, 2001, 2007). Ostracism research reveals that to be a target of ostracism is correlated with depression, physical health problems, and mortality (Baumeister & Leary, 1995; Cacioppo & Hawkley, 2003; Cacioppo & Patrick, 2008; Williams, 2001). Individuals start to face with ostracism in early childhood. During life-span socialization, everyone both experiences the role of an ostracizer, and time to time becomes target of ostracism in various relationships including family members, close friends or work settings (Williams & Zadro, 2007).

Being excluded from social groups may be common in peer interactions from early childhood through adulthood. Ostracism may be faced in various ways, it may be seen as exclusion of an individual or group completely or it may be seen just like paying no attention to an individual or a group, or by ignoring (Williams & Zadro, 2007). During ostracism individuals couldn’t receive any response from others, they feel that people do not interest in them. This causes, the ostracized individual to lose his or her sense of belonging, additionally existential needs are threatened and ostracism experience arouses the feeling unworthiness (Case & Williams, 2004). Sources may ostracize targets by not establishing eye contact, not talking and not listening, not answering or leaving the social setting. Cyber ostracism is another way to ostracize individuals, with this form of ostracism, which sources ignore or exclude targets by not sending, or receiving mails or phone calls (Williams & Zadro, 2007).

In the period of adolescence to be a member of a group is particularly important so that being excluded is associated with psychological stress, disappointment and sorrow; social isolation, or the failure to connect to a social group, is related to various problem behaviors and emotional disturbances (Santrock, 2014). Adolescence is a developmental stage that characterized by the understanding of the self in relation to the social world (Coleman & Hendry, 1990). Satisfying peer relations are essential for normal social development in adolescence. With adolescence children are getting more self-conscious and more anxious with others’ perceptions and opinions about themselves (Steinberg, 2005; Choudhury, Blakemore & Charman, 2006).

There is a broad research interest in social interactions of adolescents in Turkey, these studies are mainly focused on peer relationships (e.g. Yöndem ve Tokinan, 2007; Kaner, 2000) friendship (e.g. Erkan-Atik, Çok, Esen-Çoban ve Güney-Karaman, 2014; Avci, 2009; Çevik, 2007; Öztürk-Kılıç, 1994), loneliness (e.g. Çeçen, 2008; An ve Hamarta, 2000; Demir, 1989; Güngör, 1996; Demir, 1990), social support (e.g. Çivitçi, 2015; Çeçen, 2008; Çakir ve Palabıyıkolu, 1997) and social anxiety (e.g. Zorbaz ve Tuzgöl, 2014; Eren-Gümüş, 2006; Erkan, 2002; Özay ve Palancı, 2001); however there are no studies with ostracized adolescents. This may be due to lack of measurement tools, although various studies used socio-metric tools but these studies are generally conducted generally with children whereas only a small amount with adolescents (e.g. Bahar, 2010; Bakkaloğlu, 2010; Demir ve Kaya, 2008; Oral, 2007; Pekel-Uludağlı & Ucanok, 2005; Kapçı ve Çorbacı-Oruç, 2003) and focused on acceptance or loneliness rather than ostracism.

1.1. Measurement of Social Ostracism

In general, there are two research biases with measurement of ostracism. Developmental psychology research usually uses socio-metric methods, studying social status of accepted and unaccepted children and social psychology research generally uses experimental methods, by controlling ostracism experiences (Gilman et al., 2013).

Experimental paradigms (conversation, ball-tossing, cyber-ball, chat-room) are used widespread in social psychology research to test the short term effects of social ostracism, furthermore, role-play paradigm (train ride), and qualitative methods (interviews and narratives) are other paradigms commonly used to measure ostracism and consequences of being ostracized especially for the long term effects (Williams, 2001, 2007). In conversation paradigm, participants ignore or exclude a participant during a conversation (Ezrakhovich, Kerr, Cheung. Elliot, Jerrems & Williams, 1998); Ball-tossing paradigm is one of the widely used paradigm in ostracism research, Williams (2007), designed a ball-tossing game players excluded the target from the game, the participant who is in the ostracized condition were not thrown the ball during most of the time. Williams, Cheung and Choi (2000), Williams and Jarvis (2006), used Cyberball paradigm, which is a web version of the ball-tossing paradigm. “The train ride” is designed by Zadro and Williams (as cited in Williams, 2001, p.142-161) ostracism is manipulated during a 5-minute simulated train journey. Participants requested to play the role of train passengers who were randomly assigned either the role of source or the role of target and they played their role referring to the given scenario how to ostracize the target. Williams, Bernieri, Faulkner, Gada-Jain and Grahe (2000) used a real life simulation role-play to examine the costs of experiencing
ostracism during five days long. Researches participated this real life simulation either being source or being target of ostracism. Participants recorded their thoughts, feelings, and behaviors during these five days. Furthermore, several studies have examined self-report narratives of social ostracism. Williams, Shore and Grahe (1998), Sommer, Williams, Ciarocco, and Baumeister, (2001) used self-report narratives to investigate participants’ actual experiences with social ostracism. Williams, Wheeler and Harvey developed (as cited in Williams, 2001, p.142-161) Sydney Ostracism Record to study aspects of ostracism occurred naturally in daily life (as cited in Williams, 2001, p.219-228).

Despite many strengths of experimental studies there may be uncertainty if it is the experimental paradigms resemble what occurs in real life; for this purpose Nezlek, Wesselmann, Wheeler and Williams (2012) used a diary method to study ostracism outside the laboratory and examined ostracism as it occurs in daily life, and also researchers stress that it may be problematic to study the effects of being ostracized by family members in laboratory settings (Nezlek, et al., 2012). Gilman et al. (2013) stress the restrictions of social psychology methods measuring ostracism and highlight some practical and ethical difficulties of experimental paradigms. Due to ethical responsible research in laboratory setting it’s not possible to study the costs of long term ostracism (Williams, 2001), besides these ethical limitations socio-metric and experimental methods have some practical difficulties, therefore, to integrate self-report measures to experimental paradigms should be advantageous; Furthermore self-report measures can be used separately (Gilman et al., 2013).

1.2. Purpose of the Study
As mentioned above, experimental measures of ostracism generally have focused on immediate consequences of being ostracized. These paradigms have the advantage of an objectively measurable ostracism condition which is not dependent on self-report. But they have the disadvantage of being potentially influenced by the participants’ motivation to persist in the task, and the restrictions of assessing only the short-term costs. Another limitation is, experimental paradigms may not be practical for survey research with large sample sizes. Thus, Gillman et al. (2013) filled a gap in measurement of social ostracism developing a self-report measure.

The aim of the present study is to test the factor structure, convergent validity, and reliability of the Ostracism Experience Scale for Adolescents (Gilman et al., 2013) on a Turkish adolescent sample. In the original study participants’ ages were 17-18, secondly in the present study it is aimed to expand the age range from 14 to 18. In this way the aim was to bring in a reliable and valid self-report measure to the relevant literature for a Turkish sample.

2. METHOD
2.1. Participants
Participants were 461 students (252 female, 209 male) who were randomly selected from five different schools (four high schools and one secondary school) in Istanbul during the spring semester in 2014. Participants’ age ranged from 14 to 18 (M=16.02). The distribution of the participants according to their ages is as follows. 20.0% age 14 (n=92), 20.4% age 15 (n=94), 18.7% age 16 (n=86), 20.0% age 17 (n=92), 21.0% age 18 (n=97). The data collected from this first group was used for the Expletory and Confirmatory Factor Analysis.
In order to calculate convergent validity of the scale, OES-A and UCLA were administrated to a second group of students (n=343).

2.2. Measures
Regarding purpose of the study Ostracism Experience Scale for Adolescents was used for validity and reliability study, and UCLA loneliness scale is used for assessing convergent validity.

2.2.1 Ostracism Experience Scale for Adolescents
Ostracism Experience Scale for Adolescents (OES-A; Gilman, et al. 2013) has been used in order to test its validity and reliability within the Turkish context. OES-A is an 11 item, self-report, five point likert type instrument that assesses two ostracism subtypes: Exclusion and Ignore. These scales are considered as two correlated factors, rather than single factor solution in the original study, with reference of better-fit indices (Gilman et al. 2013). Items are distinctly loading on either Exclusion Scale or Ignore Scale. Exclusion Scale consists of 6 items, (e.g. In general others invite me to join them for weekend activities) that assessed being ignored by peer group, and Ignore Scale consists of 5 items that assessed being excluded by the peer group (e.g. In general others look through me as if I do not exist). The response to each item is made on a 5-point rating scale (1 = never, 5 = always). Adding up the responses to all the items in each dimension separately scores the instrument. Scores of Exclusion Scale should be calculated by reversing the item scores of this scale; by this way higher scores indicate higher levels of perceived ostracism for both scales. The items of the Exclusion Scale are reverse items. The alpha coefficients of the two scales in OES-A are reported as .94 for ignored,.93 for excluded in the original study. Upon the permission of the corresponding author, the original scale has been translated to Turkish by a professional translator and back translated to English by another professional translator. Five scholars holding PhD’s at Guidance and Psychological Counseling have reviewed both the Turkish and English translations. After the final revisions, the scale has been administered to the participants.

2.2.2 UCLA Loneliness Scale
The UCLA Loneliness Scale is a commonly used measure of loneliness. It was first published in 1978 by Russell, Peplau and Ferguson and was revised in 1980 and 1996. It is consisted of 20 items ten of them are positively and ten of them are negatively worded. It’s a four point likert type instrument. Higher scores indicate greater degrees of loneliness. Turkish adaptation of the scale was done by Demir (1989) and proved to be valid for Turkish use. Cronbach alpha of the Turkish version of the scale was reported as .96. For this study Cronbach Alpha is calculated as .87.
To test the structure validity of the Turkish translation of OES-A, Explanatory and Confirmatory Factor Analysis, for convergent validity, bivariate correlations with theoretically comparable scales, for item analysis; t-tests are conducted to analyze the difference between the upper and lower 27% scores of items and item total correlations were calculated. To test the reliability of the instrument, internal consistency coefficients and test-retest values were calculated.
3. FINDINGS
Analyses were conducted to determine whether scores on the ostracism scales varied across gender and age. There were no significant differences associated with OES-A scores and gender and age.

3.1. Exploratory Factor Analysis
In order to test the structure validity of the instrument, a principal component analysis with varimax rotation has been applied. Extracting factors with Eigen values over 1.00, was the primary criterion to decide the number of factors retained for rotation. Accordingly two factors, with eigen values higher than 1.00 retained for the analysis. KMO (.87) and Barlett Sphericity ($x^2=1797; p<.000$) values have found to be adequate for satisfactory analysis. Results of the principal component analysis yielded two factors loading between .83 and .59 and explaining % 56.2 of the total variance. The first factor (5 item ignorance scale) explains 39.19 % of the total variance. The second factor (6 item exclusion scale) explains %17.07 of the total variance. The factor loadings for each scale are presented in Table 1. In the present form, all items retained their original factor loadings, loading higher than .59.

3.2. Confirmatory Factor Analysis
The model fit was evaluated via confirmatory factor analysis using the structural equation modeling program Lisrel 8.50 (Joreskog & Sorbom, 2001). The analyses were performed on the 11 ostracism items and maximum likelihood method of estimation was used. No cross-loadings and correlated measurement of errors were allowed in the model (Kline, 2005). To evaluate the fit of the defined model the primary fit indices were determined as follows: The ratio of the chi-square statistic to the degrees of freedom ($x^2/df$) should be less than 3 with large samples (Çokluk, Şekercioğlu ve Büyüköztürk, 2010). The Goodness of Fit Index (GFI), the Comparative Fit Index (CFI), and Non-Normed Fit Index (NNFI) should exceed .90 (Hu & Bentler, 1999; Sümer, 2000; Tabachnick & Fidell, 2001) the Root Mean Square Error of Approximation (RMSEA) should be less than .05 with values less than .06 representing good fit (Hu & Bentler, 1999); and the standardized Root Mean Squared Residual (SRMR) should not exceed .05 (Brown, 2006). Resulting fit indices clearly revealed that the two-factor model of ostracism provided a good fit to the data ($x^2=117.32, df=43, (x^2/df=2.73)$), RMSA=0.061, GFI= 0.96, CFI=0.96, NNFI=0.95, SRMR=0.044).
Table 1.
Means, Standard Deviations and Factor Loadings of OES-A.

<table>
<thead>
<tr>
<th>M</th>
<th>Sd</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IGNORED</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.98</td>
<td>2.56</td>
<td></td>
</tr>
<tr>
<td>Item 1</td>
<td>1.60</td>
<td>.82</td>
</tr>
<tr>
<td>Item 2</td>
<td>1.41</td>
<td>.70</td>
</tr>
<tr>
<td>Item 3</td>
<td>1.26</td>
<td>.57</td>
</tr>
<tr>
<td>Item 4</td>
<td>1.38</td>
<td>.66</td>
</tr>
<tr>
<td>Item 5</td>
<td>1.32</td>
<td>.58</td>
</tr>
<tr>
<td><strong>EXCLUDED</strong></td>
<td>15.91</td>
<td>5.06</td>
</tr>
<tr>
<td>Item 6</td>
<td>2.91</td>
<td>1.22</td>
</tr>
<tr>
<td>Item 7</td>
<td>2.24</td>
<td>1.04</td>
</tr>
<tr>
<td>Item 8</td>
<td>2.95</td>
<td>1.22</td>
</tr>
<tr>
<td>Item 9</td>
<td>3.15</td>
<td>1.11</td>
</tr>
<tr>
<td>Item 10</td>
<td>2.38</td>
<td>1.18</td>
</tr>
<tr>
<td>Item 11</td>
<td>2.29</td>
<td>1.13</td>
</tr>
</tbody>
</table>

*Figure 1.* Standardized solution of the two-factor model of the ostracism experience scale for adolescents

Item Analysis: The items of OES-A were analyzed via computing item-total correlations for both scales and t-test values were computed to compare both the item and scale scores.
of upper and lower 27%. All item-total correlations coefficients fell with the range of .75 and .83. Likewise, all t-values for the difference between the scores of upper and lower 27% of items and scales found to be significant (Table 2.)

**Table 2**

**Item-total Correlations and Difference between Item Scale Scores of Upper and Lower %27**

<table>
<thead>
<tr>
<th>Item</th>
<th>Lower %27 M</th>
<th>Sd</th>
<th>Upper %27 M</th>
<th>Sd</th>
<th>t</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IGNORED</strong></td>
<td>10.44</td>
<td>2.33</td>
<td>5.00</td>
<td>0.00</td>
<td>-25.92**</td>
<td>.82*</td>
</tr>
<tr>
<td>Item 1</td>
<td>2.53</td>
<td>0.77</td>
<td>1.00</td>
<td>0.00</td>
<td>-22.17**</td>
<td>.76*</td>
</tr>
<tr>
<td>Item 2</td>
<td>2.23</td>
<td>0.77</td>
<td>1.00</td>
<td>0.00</td>
<td>-17.88**</td>
<td>.75*</td>
</tr>
<tr>
<td>Item 3</td>
<td>1.70</td>
<td>0.83</td>
<td>1.00</td>
<td>0.00</td>
<td>-9.46**</td>
<td>.81*</td>
</tr>
<tr>
<td>Item 4</td>
<td>2.00</td>
<td>0.85</td>
<td>1.00</td>
<td>0.00</td>
<td>-13.16**</td>
<td>.78*</td>
</tr>
<tr>
<td>Item 5</td>
<td>1.98</td>
<td>0.68</td>
<td>1.00</td>
<td>0.00</td>
<td>-15.97**</td>
<td>.79*</td>
</tr>
<tr>
<td><strong>EXCLUDED</strong></td>
<td>22.36</td>
<td>3.03</td>
<td>9.97</td>
<td>1.90</td>
<td>-38.60**</td>
<td>.83*</td>
</tr>
<tr>
<td>Item 6</td>
<td>3.87</td>
<td>0.97</td>
<td>1.92</td>
<td>0.96</td>
<td>-15.83**</td>
<td>.82*</td>
</tr>
<tr>
<td>Item 7</td>
<td>3.30</td>
<td>0.98</td>
<td>1.35</td>
<td>0.51</td>
<td>-19.68**</td>
<td>.79*</td>
</tr>
<tr>
<td>Item 8</td>
<td>4.13</td>
<td>0.90</td>
<td>1.81</td>
<td>0.84</td>
<td>-20.99**</td>
<td>.79*</td>
</tr>
<tr>
<td>Item 9</td>
<td>4.04</td>
<td>0.95</td>
<td>2.21</td>
<td>0.93</td>
<td>-15.33**</td>
<td>.81*</td>
</tr>
<tr>
<td>Item 10</td>
<td>3.52</td>
<td>1.10</td>
<td>1.38</td>
<td>0.63</td>
<td>-18.72**</td>
<td>.80*</td>
</tr>
<tr>
<td>Item 11</td>
<td>3.50</td>
<td>1.03</td>
<td>1.30</td>
<td>0.54</td>
<td>-21.09**</td>
<td>.78*</td>
</tr>
</tbody>
</table>

**Note:** **p < .000**

In order to test the convergent validity of the instrument UCLA Loneliness Scale was administrated to participants (n=343). Ignorance Scale (r=.55, p<.001) and Exclusion Scale (r=.45, p<.001) are correlated with UCLA scores. Cronbach Alpha coefficients and test-retest coefficients were computed for reliability studies. Cronbach Alpha Coefficients were calculated as .82 for Ignorance Scale, and .83 for Exclusion Scale.

Test re-test study was conducted with a sample of 60 students from 9th and 10th grades of a high school in Istanbul. The questionnaire has been administrated to the research group two times in a period of two weeks. Test re-test coefficients were found to be .65 (p<.01) for Ignorance Scale, and .63 (p<.01) for Exclusion Scale.

Associations between two scales of OES-A were analyzed via computing bivariate correlations. Results of the correlation analysis yielded positive relationships between Ignore and Exclusion Scales, and the associations were moderate in magnitude (r=.39 p<.01).

**4. DISCUSSION, CONCLUSION AND SUGGESTIONS**

Ostracism Experience Scale For Adolescents (Gilman, et al., 2013) is an instrument designed to assess social ostracism with two scales, being ignored and excluded. The original scale was developed in English and the present study was conducted to test the validity and reli-
ability of the Turkish translation of OES-A. For this purpose, exploratory and confirmatory factor analyses were conducted. The results of the factor analysis verified the two-factor structure of ostracism experience among Turkish adolescents between ages 14-17, with the model having a good fit to the data. Convergent validity between OES-A and UCLA was also confirmed as previously hypothesized. Item analysis of OES-A revealed that both items were strongly associated with OES-A scales and the difference between upper 27% and lower 27% item scores was found to be significant. Finally OES-A was proven to be a reliable instrument, which was demonstrated by Cronbach’s alpha and test re-test coefficients. These findings replicate the validity of 11 item-two factor model of OES-A in Turkish as demonstrated in United States samples (Gilman et al., 2013).

On the other hand, OES-A has originally been designed to assess the ostracism experience either by being ignored or by being excluded. It was originally tested on 17-18 years old adolescents; however the present study is conducted on 14-17 years old participants, with this sample the scale was found to be reliable and valid for 14-17 years old adolescents, by these results the age range is expanded towards 14. The psychometric properties of OES-A should further be tested among early adolescents and college student samples among Turkish adolescents to fill the gap in measuring tools in Turkey.

One important limitation of the study is, though original study was conducted with ages 17 and 18, it couldn’t be possible to reach the 18 ages old students in Turkish high schools during data collection period. As mentioned before, data were collected in spring semester which is a period that 12th grade students are excessively concerned with Undergraduate Placement Examination. Secondly, in the present study the exploratory and confirmatory factor analyses were conducted on the same sample. A recommendation that should be addressed for further research is to test the confirmatory factor analysis on a different sample.

Overall, the results of this study suggest that the Turkish version of OES-A is a useful tool to assess ostracism experience of adolescents. Furthermore, results of the present study provide further evidence that the two factor structure of OES-A is generalizable across nations.

5. REFERENCES

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