



An adaptation study of the parenting scale into Turkish¹

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Abstract

The purpose of this study is to adapt the Parenting Scale developed by Arnold et al. (1993) into Turkish and to examine its psychometric properties with the Turkish sample. For the validity and reliability study, first the scale was translated into Turkish by one of the author and two other colleagues who were proficient in both languages. Second, the authors compared these translations for contradictions and agreements and produced a revised version of the translation. The revised translation was back translated into English by three other colleagues proficient in both languages. The authors compared the back translated scales with the original and found no significant discrepancies in between. Then five experts were consulted for their opinions on the expressions in the questions, the suitability of the questions towards their aim and adequacy in the Turkish translation of the scale. The final version of the scale after the expert opinion was performed on 568 mothers in Ankara, Turkey. After the application of a confirmatory factor analysis, it was determined that the scale showed a three factor structure as suggested in Rhoades and O'Leary (2007) instead of a three factor structure consisting of 30 items as in the original 1993 study. The results of the reliability analysis revealed that the scale showed adequate psychometric properties for measuring the dysfunctional parenting styles of the Turkish mothers.

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1. Introduction

Family constitutes the first context for children's socialization process. A child gains certain behavioral habits through interacting with the parents and other family members. Family interactions, as a result, have great importance in children's gaining desired behaviors.

Elements such as "basic needs, communication and discipline" play a role in a child's desired behaviors. The term discipline, refers to adult behaviors and general attitudes that reinforce desired child behaviors and stop or prevent unwanted child behaviors (Deniz, 2011). Disciplinary practices play an important role in a child's personal development as an individual. They also help a child to develop self-control skills, resulting in appropriate attitudes (Ada and Çetin, 2002; Dinçer, 2000; Marshall, 2005; Yavuzer, 2004).

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Parental disciplinary practices are influenced by the child's behaviors and by some of the demographic characteristics of the child and the parents. Other factors include the child's age and gender (Kan, 2008; Seer, eliköz and Yaşa, 2007; Socolar, Savage and Evans, 2007; Tahirođlu et al., 2009), parents' age, gender, education level (Kan, 2008; Seer, eliköz and Yaşa, 2007; Rodriguez, 2008; Tahirođlu et al., 2009), parents' disciplinary experiences in their childhood (Kutlu et al., 2007) , and parents' perceptions and knowledge about parenting (Dix, Ruble and Zambarano, 1989; Morawska, Winter and Sanders, 2009; Rodriguez, 2008).

Research indicates that such larger contextual influences as culture, social class, ethnicity, religious beliefs and the place where the family lives also affect the parental disciplinary practices (Aksoy, Kılı and Kahraman, 2009; atay, Allen and Samstag, 2008; Gunnoe, Hetherington and Reiss, 1999; Koch, 2008; Kotchick and Forehand, 2002; Özdikmenli-Demir and Sayıl, 2009; Pearce and Axinn, 1998; Rodriguez, 2008; Schulze et al., 2002; Yađmurlu, Sanson and Köymen, 2005).

Gander and Gardiner (2010) classify general disciplinary practices under two approaches: positive approaches and negative approaches. A positive approach reinforces desired child behaviors but requires patience, consistency and provides long-term results. A negative approach stop or prevent unwanted child behaviors. Negative approaches such as punishment, criticizing, nicknaming often provides short-term result but may harm a child's self-respect. Furthermore, by emphasizing the unwanted behaviors it may actually reinforce these behaviors. Literature on parental disciplinary practices indicates parents' shortcomings of preventing or stopping unwanted behaviors (Kircaali-İftar, 2004) and parental tendency towards negative approaches which provides short-term results (Aydın, 2007; Gander and Gardiner, 2010; Humphreys, 1998; Marshall, 2005; Yavuzer, 2004).

Many scholars found relationship between parental disciplinary practices and children's personality and social development (Guajardo, Snyder and Petersen, 2009) and their academic performances (Chao, 2001; Koch, 2008). Parental disciplinary practices have direct effect on children's self-respect (Bahivan and Genöz, 2005). Negative disciplinary practices, therefore, may lead to internalizing or externalizing behavior problems. Researchers have found relationship between parental disciplinary practices and internalizing or externalizing behavior problems (Amuwo et al., 2004; Brenner and Fox, 1998; Deater-Deckard and Dodge, 1997; Gershoff et al., 2010; Kerr et al., 2004; Laskey and Cartwright-Hatton, 2009; Meteyer and Perry-Jenkins, 2009; O'Leary, Slep and Reid, 1999; Rhoades and O'Leary, 2007; Richerson, 2007; Rodriguez and Eden, 2008). In addition, negative disciplinary practices may cause children to feel lack self-confidence, lack of sense of responsibility and gain hostile feelings which may lead to misbehavior in the absence of authority (ađdaş and Seer, 2010; Humphreys, 1998; Marshall, 2005; Yavuzer, 2004).

The purpose of this study was to adapt the Parenting Scale, developed particularly to measure dysfunctional parental disciplinary practices, into Turkish and to examine its psychometric properties with the Turkish sample.

2. Methodology

2.1. The Parenting Scale

The Parenting Scale is developed by Arnold et al. (1993) to measure dysfunctional parenting practices of 18-48 months old children. The scale consists of 30 items and 3 factors. The first factor, *Laxness*, has 11 items (7, 8, 12, 15, 16, 19, 20, 21, 24, 26, and 30), the second factor, *Overreactivity*, has 10 items (3, 6, 9, 10, 14, 17, 18, 22, 25, and 28), and the final factor, *Verbosity*, has 7 items (2, 4, 7, 9, 11, 23, and 29). In addition, the Verbosity factor has one item (7) in common with Laxness and one item (9) with the Overreactivity factor. There are also 4 items (1, 5, 13, and 27) in the scale that do not load under any factor but kept for their value in the total scale scoring.

The scale items are consist of a seven-point Likert-type questions where 1 was assigned to effective and 7 to dysfunctional parenting. Each question presents parents a child behavior or situation, then, parents are asked to rate themselves on the parental response continuum based on their last two months experiences.

Items 2, 3, 6, 9, 10, 13, 14, 17, 19, 20, 23, 26, 27, and 30. have point 7 on the left and the others on the right. Reverse coding is needed before scoring for the items that has point 7 on the left.

For instance, in the first item of the scale parents are asked to rate themselves in between “*I do something right away*” and “*I do something about it later*” responses for the situation of “*When my child misbehaves...*” According to the scale scoring, item 1 has point 1 on the left and point 7 on the right side. In other words, parents who rate themselves on or close to the left side have effective parenting practices, those who located themselves on or close to the right side have dysfunctional parenting practices.

Item 1. When my child misbehaves...

I do something right away

0 0 0 0 0 0

I do something about it later

Arnold et al. (1993) state that the alpha value for the laxness, overreactivity and verbosity dimensions and for the total is .83, .82, .63, and .84 respectively.

The psychometric properties and the factor structure of the Parenting Scale has been examined by many researchers on different samples such as parents of preschool to middle school children (Collett et al., 2001; Freeman and DeCoursey, 2007; Irvine et al., 1999; Karazsia, van Dulmen and Wildman, 2008; Rhoades and O’Leary, 2007), parents of ADHD children (Harvey et al., 2001), primarily African American parents of Head Start Children (Reitman et al., 2001), parents of children in urban or rural school settings in the US (Steele et al., 2005), and the Australian parents of preschool children (Arney et al., 2008).

Whereas in one of these studies researchers found evidence for the original 3-factor structure (Arney et al., 2008), the other studies supported a 2-factor structure consisted of the Laxness and the Overreactivity factors (Collett et al., 2001; Freeman and DeCoursey, 2007; Harvey et al., 2001; Irvine et al., 1999; Karazsia, van Dulmen and Wildman, 2008; Reitman et al., 2001; Steele et al., 2005).

Rhoades and O’Leary (2007) found evidence for a different 3-factor structure. They called the first factor as *Lax* which consisted of 5 items (12, 16, 19, 21, and 30), the second factor as *Overreactive* which consisted of 5 items (3, 6, 10, 14, and 17), and the third factor as *Hostile* which consisted of 3 items (18, 25, and 28).

2.2. Translation Procedure

The researchers emailed Susan O’Leary, one of the developers of the Parenting Scale, to obtain the original scale form and the scoring instructions and to request permission to translate the scale from English into Turkish. After obtaining the original scale and permission, the Parenting Scale was translated into Turkish by three scholars including the first author proficient in both languages. The translations were compared for agreements and disagreements to develop the finalized version. Then, the form was translated back to English by three different scholars proficient in both languages. The back translations were compared with the original Parenting Scale for agreements and discrepancies by the authors. The Turkish form was revised accordingly. Next, the Turkish form was sent for review to five field experts, proficient in both languages, to ensure that the language used was culturally fit. Based on the feedback received, the form was finalized.

2.3. Population and Sample

The population of the study was composed of mothers of 48-72 months-old children at public preschool classrooms in the Yenimahalle municipality of Ankara, Turkey. Cluster and stratified sampling techniques were used to define the sample. First of all, the preschools and kindergarten classes under elementary and middle schools in the Yenimahalle municipality were listed and the number of 48-72 months old children attending to these schools (n=5648) was obtained from the Ministry of Education. Using random sampling, nine schools were selected from the list. The Parenting Scale was sent to the mothers of 900 children through the classroom teachers, but only 568 completed scales were returned. For validity and reliability studies, 3 to 6 person per item (Cattell, 1978) or 10 person per item (Everitt, 1975) is sufficient (as cited in McCallum et al., 1999: 84-85).

3. Findings

Table 1 presents the demographic characteristics of the mothers who participated in the study. The age of 84,2% of the mothers ranged from 26 to 40. The 57,7% of the mothers were housewives. While the 40,3% of them were high school graduates, the 36,3% completed two- or four-year college education. The 84,7 % came from middle class.

Table 1. Demographic Characteristics of the Mothers

Age	f	%
25 years old or younger	24	4,2
26-30 years old	127	22,4
31-35 years old	217	38,2
36-40 years old	134	23,6
41-45 years old	49	8,6
46 years old or older	6	1,1
Missing	11	1,9
Total	568	100,0
Education Level		
Illiterate	3	0,5
Elementary school graduate	51	9,0
Middle school graduate	54	9,5
High school graduate	229	40,3
2 year college graduate	63	11,1
4 year college graduate	143	25,2
Masters degree graduate	9	1,6
Doctoral degree graduate	4	0,7
Missing	12	2,1
Total	568	100,0
Work Status		
Housewife	328	57,7
Worker (farming, industry, etc.)	1	0,2
Public employee	99	17,4
Private sector employee	98	17,3
Self-employed	9	1,6
Other	28	4,9
Missing	5	0,9
Total	568	100,0
Perceived socioeconomic status		
Low socioeconomic status	51	9,0
Middle socioeconomic status	481	84,7
High socioeconomic status	19	3,3
Missing	17	3,0
Total	568	100,0

3.1. Structural Validity

Two confirmatory factor analyses were conducted to determine the appropriate structure for the Parenting Scale among the Turkish sample. Specifically, we examined the goodness-of-fit indices for the original 3-factor model proposed by Arnold et al. (1993) and the fit indices of the 3-factor model proposed by Rhoades and O'Leary (2007). Before the confirmatory factor analysis, the data was examined to ensure that the normal distribution properties were displayed. In addition, the data was examined to check whether there was a multicollinearity problem among variables. The findings showed no relationship between variables that could lead to multicollinearity problem for either of the factor structures. Variables which contain high colinearity among each other may substitute for each other and thus lower the reliability score of the scale (Byrne, 2001).

Table 2. Fit indices and chi square values of the data

Fit Indices	Value	Decision
χ^2	816,72	Reject
χ^2/sd	2,7	Good Fit
NFI	.61	Reject
AGFI	.87	Reject
CFI	.71	Reject
NNFI (TLI)	.71	Reject
GFI	.89	Reject
RMSEA	0.058	Good Fit

Note: NFI: Normed fit Index. AGFI: Adjusted Goodness-of-Fit Index,

TLI: Tucker-Lewis-Index, GFI : Goodness-of-Fit Index, CFI: Comparative fit index

3.2 Confirmatory Factor Analysis of the Parenting Scale (Arnold et al., 1993)

First level confirmatory analysis was conducted for the original form of the Parenting Scale. Table 2 displays fit indices of results of the analysis. According to the fit indices the 3-factor structure model of the Parenting Scale did not display adequate fit to the Turkish sample.

3.3. Confirmatory Factor Analysis of the Parenting Scale (Rhoades and O'Leary, 2007)

Table 3 displays descriptive statistics for the 3 factors and the total scale of the Parenting Scale. The arithmetic mean, median and mode values for the total scale are close to each other. As for the Skewness and Kurtosis, values of the total scale indicate that the data shows normal distribution properties. In addition, the values for the Factor 1 and Factor 2, each has 5 items, are close to each other.

Table 3. Descriptive statistics for the Parenting Scale 3 factors and the total scale

Tests	Factor 1	Factor 2	Factor 3	Total
Arithmetic mean.	13,91	14,16	4,92	32,99
Median	14,00	14,00	4,00	32,26
Mode	11,00	11,00	3,00	31,00
Standard deviation	5,32	5,39	2,38	9,49
Skewness	,25	,27	1,69	,12
Kurtosis	-,21	-,05	3,15	-,25

The confirmatory factor analysis of the Parenting Scale for the Rhoades and O'Leary (2007) model was completed in two stages. During the first stage, the analysis was conducted without any modifications. Having examined the fit indices, modification indices were taken into consideration in order to increase the fit of the structure to the data. According to the modification results, there were suggestions for the error variance of between items and covariance definitions. The most contributing suggestion was about the items 12, 16, 25 and 28. During the second stage, the analysis was repeated based on these suggestions. Table 4 displays the fit indices values of the data before and after the modifications.

Table 4. Fit indices and chi square values of the data before and after modification

Fit Indices	Before Modification Value	After Modification Value	After Modification Decision
χ^2	165,52 (p<.05)	118.90 (p=0.00)	Reject
χ^2 /sd		1.98	Perfect Fit
NFI	0.83	.88	Reject
AGFI	0.93	.95	Perfect Fit
CFI	0.88	.93	Good Fit
NNFI (TLI)	0.85	.91	Good Fit
GFI	0.95	.96	Perfect Fit
RMSEA	0.056	.043	Perfect Fit

Note: NFI: Normed fit Index. AGFI: Adjusted Goodness-of-Fit Index,

TLI: Tucker-Lewis-Index, GFI : Goodness-of-Fit Index, CFI: Comparative fit index

The Chi Square (χ^2) results after the modifications indicated that the model did not fit to the sample. However, given that χ^2 values are effected by sample size, χ^2 /sd ratio is often used to decide a model fit to the data. According to Sümer (2000), whereas a χ^2 /sd value of 2 or less indicates perfect fit, a value of 5 or less indicates good fit. Because the χ^2 /sd value after modifications in our data was 1.98, it can be argued that the model has an adequate fit to the data.

In the fit indices, whereas the Goodnes of Fit Index (GFI) and the Adjusted Goodness of Fit Index (AGFI) values of 0.95 or higher indicate a perfect model fit, the values between 0.90 and 0.95 indicate a good model fit to the data (Hooper, Caughlan and Mullen, 2008; Kline, 1998; Schumacker and Lomax, 1996). In this study, GFI and AGFI values after the modifications were 0.96 and 0.95 respectively, which presented a perfect fit between the model proposed by Rhoades and O'Leary (2007) and our data.

The Root Mean Square Error of Approximation (RMSEA) value of less than 0.008 indicates a good fit, a value of less than 0.05 indicates a perfect fit between a model and a data set (Jöroskog and Sörbom, 1993). Given that the RMSEA value after the modifications was 0.043, it can be argued that the model proposed by Rhoades and O'Leary (2007) explains our data adequately.

Normed Fit Index (NFI) and Non-Normed Fit Index (NNFI-TLI) carry values between 1 and 0 indicating a perfect fit and lack of fit respectively between a model and a data set (Sümer, 2000). The NFI value of 0.88 after the modifications indicates lack of fit whereas the NNFI value of 0.91 indicates a perfect fit between the 3-factor structure model of Rhoades and O'Leary (2007) and our data.

Figure 1 displays the factor structure of the Parenting Scale with the Turkish sample. The first factor indicates Lax parenting style and has 5 items (12, 16, 19, 21, and 30). The second factor indicates Overreactive parenting style and has 5 items (3, 6, 10, 14, and 17). Finally, the third factor indicates Hostile parenting style and has 3 items (18, 25, and 28).

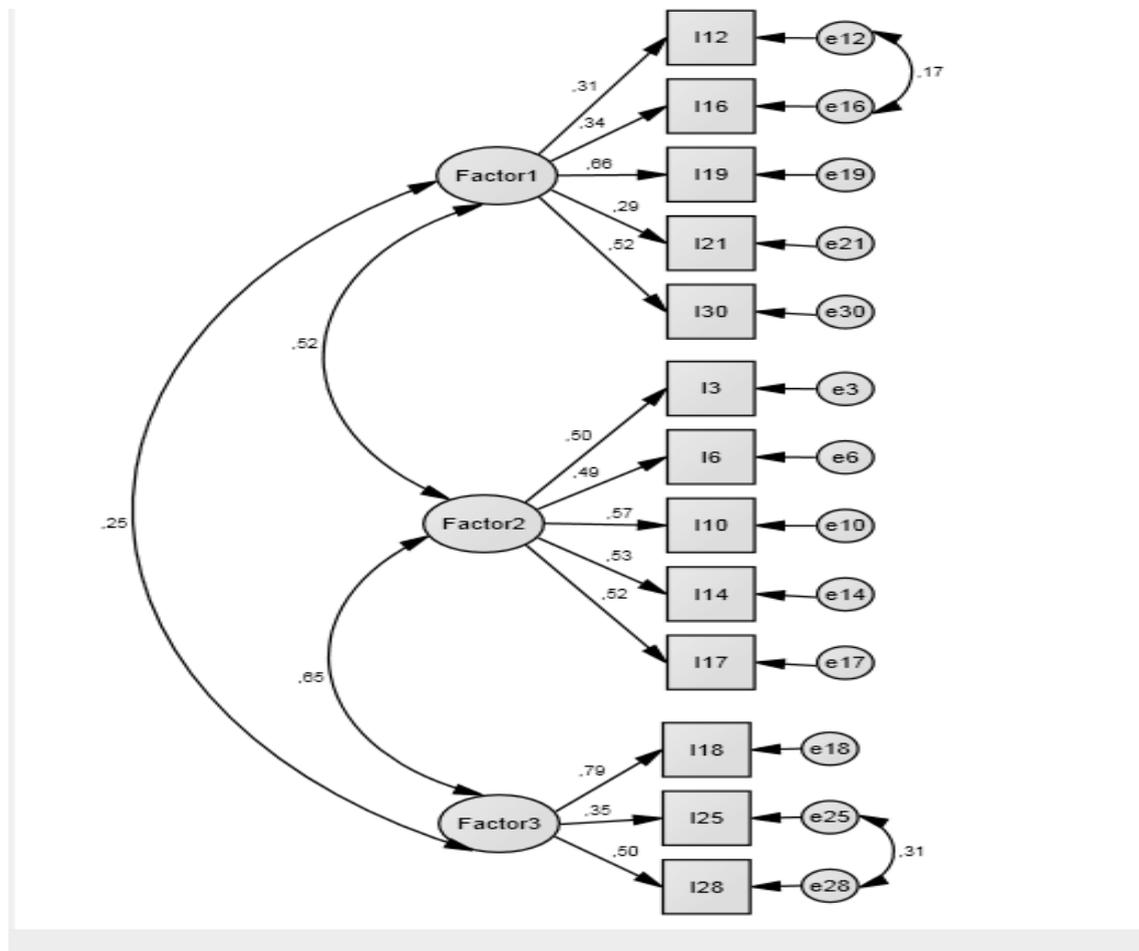


Figure 1. The 3-factor structure of the Parenting Scale

3.4. Reliability Analysis

Cronbach's alpha values were calculated for the total of the scale and for each factor. According to the results, Cronbach's alpha value for the overall scale, Lax, Overreactive, and Hostile factors were 0.74, 0.58, 0.65, and 0.64 respectively. The results indicate that the alpha values for the scale and the three factors were within an acceptable range.

4. Conclusion and Discussion

The purpose of this study was to adapt the Parenting Scale (Arnold et al., 1993) into Turkish and to examine its psychometric properties with the Turkish sample. The scale was developed particularly to measure dysfunctional parental disciplinary practices. It has a total of 30 items and consists of three factors: Laxness, Overreactivity, and Verbosity.

In the present study, Turkish version of the Parenting Scale has been tested on 568 mothers in Ankara, Turkey. The confirmatory factor analysis of the scale was conducted for the two models: one proposed by Arnold et al.

(1993) and the other by Rhoades and O'Leary (2007). The results of the confirmatory analysis indicated a goodness of fit between the latter model and the data. According to Rhodes and O'Leary (2007) the scale consisted of a three factor structure. The first factor was Lax with 5 items, the second factor was Overreactive with 5 items, and third factor was Hostile with 3 items.

According to the results of the reliability analysis, the Cronbach's alpha values were within an acceptable range. The Cronbach's alpha values for the overall scale, Lax, Overreactive, and Hostile factors were 0.74, 0.58, 0.65, and 0.64 respectively. The results indicated that the Parenting Scale showed adequate psychometric properties for measuring the dysfunctional parenting styles of the Turkish mothers.

Many researchers have used the Parenting Scale to examine the relationship between dysfunctional parenting practices and children's internalizing or externalizing behavioral problems (Lampe, Karazsia, and Wildman, 2009; Laskey and Cartwright-Hatton, 2009; Miranda et al., 2009; O'Leary, 1999). The findings of the present study suggested that the Parenting Scale could also be used to examine the relationship between Turkish mothers' dysfunctional parenting styles and their children's behavioral problems.

The studies tested the psychometric properties and the factor structure of the Parenting Scale on different samples have found different results (Arney et al., 2008; Collett et al., 2001; Freeman and DeCoursey, 2007; Harvey et al., 2001; Irvine et al., 1999; Karazsia, van Dulmen and Wildman, 2008; Reitman et al., 2001; Rhoades and O'Leary, 2007; Steele et al., 2005). Therefore, further validity and reliability studies of the scale on Turkish sample with a focus on diverse demographic characteristics of mothers who live across Turkey may help improving the validity and reliability properties of the scale.

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