THE VALIDITY AND RELIABILITY STUDY OF THE TURKISH VERSION OF PARENT EMOTION REGULATION SCALE

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Abstract:

The purpose of this study is to adapt Parent Emotion Regulation Scale to Turkish. Original scale was developed by Pereira et. al. (2017) in order to evaluate regulation of negative emotions in parenting context. In the present study, after linguistic equivalance examined, the form was applied to 311 fathers and mothers of 3 to 15 year-old children. Internal consistency was assessed by Cronbach's alpha and split half methods with adequete internal consistency. Confirmatory factor analysis showed a three-factor structure with good fit. Overall our results provide evidence that the PERS-T migt be a promising tool for the assessment parent emotion regulation in the Turkish context.

Keywords: emotion regulation, parents, scale adaptation

1. Introduction

Emotions play an important role on setting and achieving goals which make emotion regulation the focus of researchers' interest. Thompson (1994) describes emotion regulation as internal and external processes that monitor, evaluate and adjust emotions for their intensity and duration, and underlines its adaptive function as emotional

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reactions should be flexible and change quickly to let one adjust to varying conditions. Altough there are several definitions of emotion regulation, essentially they generally refer to the increasing, decreasing and retention of the intensity of emotional experience and emphasize automatic or controlled, conscious or unconscious and before or after response processes (e.g; Calkins ve Leerkes, 2011; Gross, 1998).

It is also acknowledged that emotion regulation processes can be nonadaptive and some emotion regulation efforts and strategies do not guarentee desirable changes or may prove harmful rather than beneficial (John ve Gross, 2004). Relevant research indicate emotion regulation's important role on people's functionality in many aspects of life. Studies with children and adolescents revealed that emotion regulation is related to various variables such as internalizing and externalizing problems (Anniko, Boersma ve Tillfors, 2018; Trentacosta ve Shaw, 2009), peer relationships (Blair, Gangle, Perry, O'Brien, Calkins, Keane, Shanahan, 2016; Contreras, Kerns, Weimer, Gentzler ve Tomich, 2000), school adjustment (Herndon, Bailey, Shewark, Denham ve Bassett, 2013; Shields, Dickstein, Seifer, Giusti , Magee ve Spritz, 2001) and academic achievement (Graziano, Reavis, Keane ve Calkins, 2007; Gumora ve Arsenio, 2002; Seibert, Bauer, May, Fincham, 2017).

Emotion regulation's significance on human functionality also makes its development an important subject matter. It comprises of processes including one's own attempts and others' interventions and the child who is rather dependent on others to regulate his or her own emotions in the fist year of life develops regulation skills rapidly, although others' contribution to emotion regulation continues a lifetime (Thompson 1994; Thompson ve Goodman, 2010). Calkins and Hill (2007; pp. 230) indicated that children internalize behaviours and strategies their caregivers use in mutual interactions with them, which have both behavioural and physiological repurcussions. Thompson and Meyer (2007; pp. 249-250) considered several familial variables such as parents' regulatory interventions to their children's emotions, their positive and negative appraisals regarding their children's emotions, general emotional context of the family, dialogues about emotions between parents and their children, and the quality of parent-child relationship; factors which can be influential on individual's conceptualization of his or her emotions and the situation he or she is in and his or her way of handling emotions. Since parents are primary socialization agents, it is important for a better understanding of emotional development to investigate parental emotion regulatory practices.

Currently, there is a need of a scale that assess parents' regulatory processes regarding negative emotions in parenting context for Turkish population. The purpose of the present study is to adapt Parent Emotion Regulation Scale to Turkish, which is a self-report measure developed by Pereira, Barros, Roberto and Marques (2017) to assess how parents' handle both their own and their children's negative emotions in the parenting context. The original scale consists of four dimensions that assess parental regulatory processes: 1) parent's concern with and efforts to understand child's emotions 2) parental acceptance of both child's and his or her own negative emotions as a natural

part of parenting experience. 3) parent's negative beliefs about and efforts to get rid of child's negative emotions 4) parent's inadequacy in regulating his or her own negative emotions to reach parental goals. (Periera et al., 2017). As a result of this study, it is expected to see whether the factor structure of the adapted scale is consistent with the original scale and whether it is a reliable and valid instrument for use with Turkish parents of children and adolescents between the ages of 3 to 15.

2. Method

A descriptive survey research was conducted. The data were gathered by asking participants structured questions about their own and children's emotion regulation processes. The questions were handed to the volunteer parents in printed forms in order to ensure the participation of parents with limited access to the internet.

2.1. Participants
Convenience sampling method was used in the study. Participants were 311 fathers and mothers (237 mother, 74 father) of 3 to 15 year-old children (M=8,83; SD=3,47). Mean age of mothers were 36,62 (SD = 6,30) and fathers were 40,95 (SD = 6,65). Mothers who had 1 child consisted of 19,8% of the participant mothers, while 46,4% had 2 children and 33,8% had 3 and more children. Fathers who reported to have 1 child consisted of 16,2% of participant fathers, 36,5% had 2 and 47,3% had 3 and more children. Most of the mothers (94,5%) and fathers (97,3%) were married.

2.2. Measure
2.2.1. Parental Emotion Regulation Scale (PERS)
The Parental Emotion Regulation Scale (PERS) is a self-report scale that aims to evaluate the process of parents' regulating negative emotions of themselves and their children. The development of the scale was carried out on mothers who had children between the ages of 3-15. In the scale, there are a total of 20 items which are defined as parent's orientation to the child's emotions (5 items), parent's avoidance of the child's emotions (6 items), lack of emotional control of the parent (5 items) and parent's acceptance of child's and their own emotions (4 items) under 4 factors. The items are answered on a 5-point Likert scale. The Cronbach's alpha coefficients of the subscales were .79 for the orientation of the parent's feelings towards the child's emotions, .73 for the parent's avoidance of the child's emotions, .69 for the lack of parental emotion control, and .62 for the acceptance of the child's and their own feelings. For the construct validity of the scale, the relationship with the Coping with Children's Negative Emotions Scale was examined and the subscales of the Parents' Emotion Scale, except for the acceptance of the child's and his own emotions, were compared with the various subscales of the Coping with Children's Negative Emotions Scale (CCNES) and it was found that there were significant correlations ranging from .15 to .45. In addition the incremental validity of the PERS were examined by a linear regression analysis to predict child adjustment scores on CCNES

and it was determined that the subscales except for the parent's accceptance of the child and his own emotions subscale made a significant contribution in predicting the adaptation level of the child.

2.3. Procedure and Data Analysis

Firstly, the translation and back translation were performed and compared to each other in order to ensure linguistic equivalence of the scale. Then measurement, linguistic and field experts gave feedbacks on each item and the scale was taken its final shape before its administration. After data collection, Confirmatory Factor Analysis was conducted to examine the compatibility of the factor structure. Then, item fit indices were determined and the reliability of the scale was evaluated by internal consistency and split-half methods. Analysis also yielded extreme values from 33 participants and they were extracted from the data set. Examining skewness, kurtosis, Mahalanobis and Cook's distance values revealed that the data set met necessary requirements for the analysis. SPSS 21 and Lisrel 9.1 software were used in the analysis process.

3. Results

3.1. Findings for Construct Validity

First level confirmatory factor analysis was applied to evaluate the model fit of PERS in Turkish context. In its original form PERS consists of 20 items and four factors. In the first level CFA, the original structure was tested. However, it was found that the model fit and item factor load values of the first factor covering items 1, 2, 3, 4 and 5 were insufficient. On the basis of statistical evaluation and expert opinions, these five items which do not have sufficient factor loadings were removed from the data set and the scale was re-tested for three factor structure. Although three-factor model presented a good fit, some fit indices were not adequate due to item factor loadings. Therefore items 12 and 13, which did not have adequate fit in three-factor structure, were excluded from the scale and the analysis was repeated with 13 items for three-factor structure. Latest analysis revealed that there were no need for modification in three-factor structure. The results of CFA are presented in Figure 1.

When the path diagram of First Level CFA given in Figure 1 is examined, it is seen that the factor load values of the three-factor items vary between .36 and .83. These values are considered to be sufficient considering the opinions suggesting that the factor load value of each item should be at least .30 and above (Seçer, 2015, Kline, 2011).
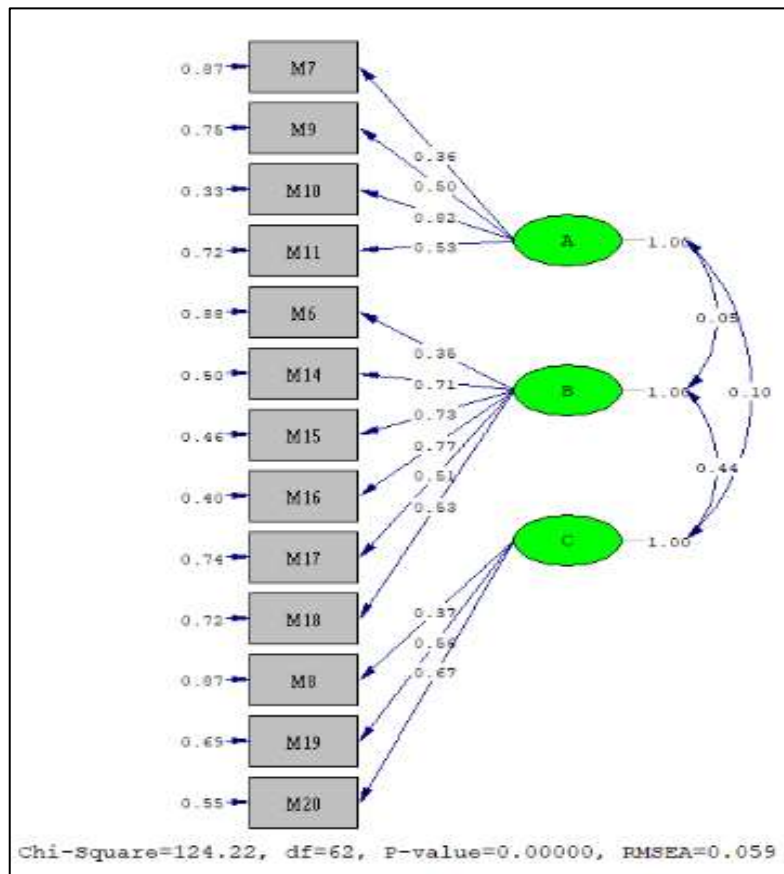
Figure 1: Path Diagram of First Level Confirmatory Factor Analysis

Values of model fit indices for three-factor structure are presented in Table 1.

Table 1: Fit Indices for 3 Factor Confirmatory Factor Model

Model	X/df	RMSEA	RMR	NFI	NNFI	CFI	IFI	RFI	GFI	AGFI
Model B Six-Factor Structure	2,00	.059	.057	.97	.97	.95	.95	.96	.91	.90

Considering CFA fit indice values in Table 1, model fit indices for three-factor structure are good and the scale's model compatibility is confirmed. It can be concluded that the scale's construct validity is ensured.

3.2. Reliability
Cronbach's Alpha and split-half reliabilities were computed to test internal consistency of the scale which were .76 and .71 respectively for the total scale. Cronbach's Alpha coefficients for subscales were 78, .79 ve .75 and split-half coefficients were .73, .74 and .71 Seçer (2015) indicated that the least acceptable reliability coefficient should be .70 when developing or adjusting a scale. Therefore the scale can be considered to have enough reliability values.

The psychometric properties of the scale from the results of reliability and validity analyses revealed that PERS is a valid and reliable scale that can be used to gather data from Turkish parents to assess their emotion regulation skills in the parenting context.

4. Discussion

The purpose of the study was to adapt Parent Emotion Regulation Scale to Turkish context. Assesing parental regulation processes is of key importance for studying many aspects of child development, family relationships, marital satisfaction etc. Yet, there is a scarcity of measurement tools for assessing parents' emotion regulation processes. In this respect, this study is considered to be a contribution to the field.

After determining the scale and getting due permissions, relevant steps were taken to ensure language validity and linguistic equivalence. Expert opinions were consulted to achieve language validity and linguistic equivalence. And the data gathered after the administeration of the scale was analysed to see item compatibility.

The confirmatory factor analysis yielded 13 items under 3 factors rather than 4 factors with 20 items in the original form. These findings indicate that 7 items and 1 factor do not have adequate compatibility with Turkish context. Most of these items (1, 3, 4, 5) belong to the factor which did not fit the data. The aforementioned factor is called "lack of emotional control of the parent" in the original form and assesses parents' skills of controlling their own emotions in front of their children and helping their children cope with their negaitve emotions (Pereira et. al., 2017). Results of factor analysis revealed that items developed to measure this structure did not have sufficient compatibility in Turkish context. While this result can be seen as a limitation of the scale, it can be considered that this limitation can be tolerated in the case of cultural adaptation. Because, the construct that these items aim to measure, may not have an exact equivalence in Turkish context. It seems important to further investigate the reasons for not obtaining the factor with a separate study. Yet in order to obtain due information, parents' own emotion regulation regulation skills can be determined by using other scales intended to assess adult emotion regulation difficulties such as Turkish version of Difficulties in Emotion Regulation Scale-Brief Form adapted by Yigit and Guzey Yiğit (2017), along with the current scale in future studies.

When the three factors and 13 items loaded under them were examined, it was found that they were compatible with the original form of the scale. These factors are named as *parents' orientation to the child's emotions*, *parents' avoidance of the child's emotions* and *parents' acceptance of the child's and their own emotions*. The last difference between the original scale form and the present research finding is that the sixth item ("When my child is nervous, I can keep calm and help him/her face the situation") was loaded under the factor called *parents' orientation to the child's emotions* in the current study rather than *parents' emotional lack of control* in the original form. This factor refers to parents' sensitivity to their child's emotions and their capacity to recognize and understand their child's feelings as well as their efforts to help the child understand his or her own

emotions. The rest of the items were loaded under the same factors as the original scale form. Therefore, it is considered that factor-item compatibility is significantly compatible with the original scale.

However, contrary to the two factors of the original scale, reliability coefficients for all three factors were .70 and above in this study. This indicates that the reliability values of the Turkish form of the scale were higher than the original version.

As a result, it can be said that PERS is a valid and reliable measure that can be used in studies focusing on emotion regulation skills of parents. However, it is worth mentioning the limitations of the study. Firstly, it was conducted on parents with children between the ages of 3-15. Secondly, the scale is intended for parents of children without any diagnosis. However, it is thought that testing its psychometric properties by administering it to parents of children diagnosed with different disabilities and behavioral disorders will be useful in providing comprehensive evidence for the scale's reliability and validity.

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