

## ADAPTATION OF THE FATHER SELF-EFFICACY SCALE TO TURKISH CULTURE AND EXAMINATION OF ITS PSYCHOMETRIC PROPERTIES

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### Article Info

**Received:** 28 April 2025

**Accepted:** 25 September 2025

### Keywords

Fatherhood,  
Father self-efficacy,  
Parenting self-efficacy,  
Scale adaptation.

### ABSTRACT

Most information on parenting self-efficacy, which directly and indirectly affects child development by affecting the interaction between children and parents and parenting behaviors, was obtained with instruments developed for mothers and validated on mothers. Using assessment tools based on men's perceptions of the parenting role will contribute to obtaining more accurate results in assessing fathers' self-efficacy perceptions. This study aimed to investigate the validity and reliability of the Turkish form of the Father Self-Efficacy Scale. The psychometric properties of the Turkish form of the scale were examined by analyzing the data obtained from 1142 fathers with children between 12-36 months. For validity and reliability, language validity, construct validity, and criterion-based validity analyses, internal consistency and test-retest reliability analyses were conducted. Confirmatory factor analyses showed that the scale retained the original three-dimensional structure, and the model-data fit was acceptable. Cronbach's alpha coefficient was found to be 0.80 for the whole scale and 0.78, 0.71, and 0.76 for the sub-dimensions, respectively. These results indicate that the Turkish version of the scale is appropriate for Turkish culture in determining the parenting self-efficacy of fathers with children between 12-36 months.

### INTRODUCTION

The effects of parenting self-efficacy, generally defined as parental perceptions of their ability to parent effectively, on parenting skills, child health, and developmental outcomes have been known for many years (Dumka, Stoerzinger, Jackson & Roosa, 1996; Jones & Prinz, 2005). However, historically, studies on parenting self-efficacy have mostly been conducted with mothers, as mothers have assumed the majority of parenting responsibilities (Coleman & Karraker, 2000; Fang, Boelens, Windhorst, Raat & van Grieken, 2021; Sanders & Woolley, 2005). However, over time, the role of the father has evolved from the traditional approach, which is considered as the person who meets basic needs, to the role of active participant in issues such as child care, protection and support (Coley & Coltrane 2007; Marsiglio & Cohan 2000; Pleck, 2012). This change has increased fathers' interest in child care and education.

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*How to cite this article:* Günay Bıraloğlu, R., Nur, İ., Gürel, S., Aktaş Arnas, Y. & Kurtoğlu, M. B. (2025). Adaptation of the Father Self-Efficacy Scale to Turkish Culture and Examination of Its Psychometric Properties. *İnönü Üniversitesi Sağlık Hizmetleri Meslek Yüksekokulu Dergisi*, 13(3), 823-842. doi: 10.33715/inonusaglik.1685634

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Nevertheless, our knowledge about fathers' self-efficacy perceptions, which include their confidence in their ability to raise, support, guide, and meet the needs of their children in various developmental stages and situations, is quite limited. Even research on the factors affecting fathers' self-efficacy perceptions (Sevigny & Loutzenhiser, 2010) and the effects of these perceptions on fathering behaviours and children's development is quite new (Fang et al., 2021; Junttila, Aromaa, Rautava, Piha & Riih , 2015; Murdock, 2013).

Many measurement tools used in the literature to assess fathers' self-efficacy perceptions are mostly developed based on information obtained from mothers (Coleman & Karraker, 1997; Jones & Prinz, 2005; Teti & Gelfand, 1991). Although these measurement tools provide a general idea about parents' self-efficacy levels, they do not allow for a comprehensive understanding of the parenting areas in which parents feel particularly effective or ineffective (Sevigny, Loutzenhiser & McAuslan, 2016). As it is known, mothers and fathers evaluate parenting tasks as important to different degrees and find different tasks important (Sevigny et al., 2016). In addition, considering the traditional gender roles, it is possible that the parenting tasks and parenting dimensions represented in self-efficacy instruments developed for mothers may not fully reflect men's fatherhood beliefs. Using assessment tools based on men's perceptions of the parenting role will contribute to obtaining more accurate results in the evaluation of fathers' self-efficacy perceptions.

## **Review of Literature**

According to the self-efficacy theory (Bandura, 1997), an individual's level of self-efficacy determines how much effort he/she is willing to make when faced with a situation. Based on this, parental self-efficacy can be defined as the carer's or parent's confidence in their ability to successfully raise their children (Jones & Prinz, 2005). Bandura (1997) stated that parental self-efficacy includes judgements and beliefs about one's self-efficacy that affect the choice of activities undertaken by parents, their motivation to complete them, and their persistence in the face of obstacles.

Studies have shown relationships between parenting self-efficacy and health outcomes of both parents and children (Albanese, Russo & Geller, 2019; Jones & Prinz, 2005; Sanders & Woolley, 2005). It is stated that parents with high parenting self-efficacy experience less depression, anxiety, stress, and exhibit fewer behavioural problems and better overall development in their children (Albanese et al., 2019; Jones & Prinz, 2005). It is reported that low parenting self-efficacy is considered a risk factor for negative parenting and a negative parent-child relationship (Albanese et al., 2019).

Considering that parenting self-efficacy is not a personality trait, but a dynamic and developing process that is changed by individual factors, changing tasks, and situational demands (Bandura, 1989, Pinto, Figueiredo, Pinheiro & Canário, 2016), it may come to mind that many factors affect and determine parenting self-efficacy. However, information on the factors determining parenting self-efficacy is limited, and inconsistent results have been found in existing studies (Fang et al., 2021; Fang et al., 2022; Jones & Prinz, 2005). For example, both negative and positive relationships have been reported between parental gender, age, and ethnicity and parental self-efficacy factors (Henney, 2016; Salonen et al., 2009). However, given that parenting self-efficacy is closely linked to competent parenting behaviours (Jones & Prinz, 2005), it can be considered that the factors determining parenting behaviours may have a similar effect on parenting self-efficacy.

In his process model for the determinants of parenting behaviours, Belsky (1984) argues that parenting is directly influenced by the personal characteristics of the parent (e.g., personality traits and psychological functioning), socio-contextual factors (e.g., marital relationships, parent-child interaction, social networks, and parents' work habits), and personal characteristics of the child (e.g., temperament and gender) (Fang et al., 2022; Seigny & Loutzenhiser, 2010; Taraban & Shaw, 2018).

### **Father Self-Efficacy**

In line with self-efficacy theory, father self-efficacy has been theorised to increase the father's positive involvement in negative situations (Trahan, 2018). Father self-efficacy refers to a father's perceived ability, confidence, and belief in his ability to effectively fulfil roles, responsibilities, and tasks related to parenting or fatherhood. Many studies have reported a positive relationship between paternal self-efficacy and parental involvement (Jacobs & Kelley, 2006; Holmes & Huston, 2010). Fathers with high parenting self-efficacy are more willing to participate in childcare and thus achieve greater parenting satisfaction. At the same time, fathers' increased involvement in childcare is associated with decreased externalising behaviours in children, positive physical and mental health, and greater emotional development (Flouri, 2005).

In the literature, parental self-efficacy has generally been studied with mothers. Therefore, most of what is known about parental self-efficacy is actually about maternal self-efficacy (Seigny & Loutzenhiser, 2010). In a few studies involving mothers and fathers, the results about self-efficacy differ (Fang et al., 2021; Fang et al., 2022; Jones & Prinz, 2005). For example, it was concluded that mothers' self-efficacy levels were significantly higher than those

of fathers (de Montigny & Lacharite, 2005; Salonen et al., 2009). In addition, although the factors affecting the self-efficacy perceptions of mothers and fathers are similar, they differ in some points. A study using separate analyses according to parental gender shows that parenting stress, depressive symptoms, and relational functioning (both marital and family) are related to mothers' and fathers' self-efficacy perceptions (Sevigny & Loutzenhiser, 2010). However, studies are emphasising that although factors such as parenting stress and negative affect are related to maternal self-efficacy, they are not related to fathers' self-efficacy perceptions (Murdock, 2013; Reece & Harkless, 1998). Similarly, Murdock (2013) found that general self-efficacy predicted both mothers' and fathers' parenting self-efficacy, but mothers' self-efficacy perceptions were predicted by hostile parenting practices, while fathers' self-efficacy perceptions were predicted by supportive parenting practices.

### **Measuring Parenting Self-Efficacy**

Parental self-efficacy is measured with different measurement methods and tools of different types. When the related literature is analysed, it is seen that there are general, narrow domain, and task-specific self-efficacy measurements. In the measurement of general parenting self-efficacy, the focus is on how competent a parent feels in the parenting role in general, without focusing on specific parenting tasks or a specific area of parenting. The measurement of task-oriented parenting self-efficacy focuses on specific tasks related to child-rearing activities, such as toilet training or child feeding. Narrow domain parenting self-efficacy, on the other hand, is related to the parents' perceived competencies in a parenting domain such as discipline, support for learning, or communication. These narrow domain parenting self-efficacy measures are based on task-specific items rather than general items (Jones & Prinz, 2005). However, some researchers (Jones & Mosher, 2013) also use measurement methods that ask parents how competent they think they are in one or a few areas.

When the literature is examined, it is seen that many measurement tools measure parental self-efficacy. These are Parenting Self-Agency Measure (PSAM; Dumka et al, 1996); Self-Efficacy Scales (SES; Wells-Parker, Miller & Topping, 1990); Parenting Sense of Competence (PSOC; Johnston & Mash, 1989); Self-Perceptions of the Parental Role (SPPR; MacPhee, Benson, & Bullock, 1986); Maternal Self-Efficacy Scale (MSES; Teti & Gelfand, 1991); Fathering Self-Efficacy Scale (FSES; Sevigny, Loutzenhiser & McAuslan, 2016).

When these measurement tools in the related literature are examined, it is seen that they are mostly measurement tools that generally assess parents' self-efficacy and many researchers have used these tools in the past (Bor & Sanders, 2004; Chau & Giallo, 2015; Giallo, Treyvaud,

Cooklin & Wade, 2013; Leerkes & Crockenberg, 2002; O'Neil, Wilson, Shaw & Dishion, 2009; Sanders & Woolley, 2005). However, such measurement tools are insufficient to assess competence in terms of specific parenting behaviours (de Montigny & Lacharite, 2005). Although these measurement tools provide a general idea about parents' self-efficacy levels, they do not allow for a comprehensive understanding of parenting areas in which parents feel particularly effective or ineffective (Sevigny et al., 2016). In this sense, it is useful to conduct field-specific self-efficacy measurements to provide a better perspective on parenting experiences.

### **Measuring Father Self-Efficacy**

Social Cognitive Theory (Bandura, 1997) can be an important guide in explaining the differences in the self-efficacy perceptions of mothers and fathers. According to the social-cognitive theory (Bandura, 1997), if mothers and fathers perceive various parenting tasks as important to different degrees, they will make more effort for those they find particularly appropriate. In turn, they will be more effective at tasks they perceive as more important and less effective at tasks they perceive as less important. Studies of maternal and paternal involvement in parenting tasks suggest that mothers may be more likely than fathers to experience situations associated with emotional support (Craig, 2006), and fathers may be more likely to experience situations associated with interactive play (Paquette, 2004). However, it is possible that the parenting tasks and dimensions represented in self-efficacy instruments may not fully reflect men's fathering beliefs (Lamb & Lewis, 2010).

Another factor related to parenting self-efficacy is culture. Bandura (2002) states that culture can increase or decrease the relationship between a person's perceptions and behaviours and that the development, structure, practices, and purpose of self-efficacy vary according to contexts. In this case, it is possible that dimensions or tasks perceived as particularly important by mothers may be perceived as less important by fathers, or that fathers may see different situations related to their roles as important. In addition, although fathers have had various roles throughout history, today many fathers take an active and practitioner role in child rearing and significantly impact children's socio-emotional development and academic processes (Dette-Hagenmeyer, Erzinger & Reichle, 2014). However, there is a limited number of studies targeting fathers' self-efficacy (Donithen & Schoppe-Sullivan, 2022; Sevigny & Loutzenhiser, 2010). In addition, one of the important responsibilities of fathers both historically and today is to provide for the family (Christiansen & Palkovitz, 2001; Mercan & Tezel-Şahin, 2017; Summers et al., 1999). However, there is no item related to providing for the family in any

known instrument related to parental self-efficacy (Sevigny et al., 2016). Therefore, achievement histories and thus self-efficacy beliefs may differ between mothers and fathers according to specific tasks.

In summary, there are many limitations in our knowledge about fathers' self-efficacy perceptions. Sevigny et al. (2016) developed a self-efficacy instrument specific to fathers to fill this gap in the literature. To create an item pool, the researchers first tried to determine men's beliefs about their parenting roles. As a result of the items created with the themes obtained from interviews with fathers and the literature on father involvement and the analyses conducted, they developed a tool consisting of three sub-dimensions: positive involvement, direct care, and financial responsibility (Sevigny et al., 2016). Considering the impact of fathers' parenting practices on children's developmental outcomes, it is important to measure fathers' self-efficacy levels, which are considered important predictors of fathers' involvement in childcare and their relationships with their children, both in scope and with culturally appropriate instruments. Therefore, the present study aimed to examine the replicability and psychometric properties of the Fathering Self-Efficacy Scale developed by Sevigny et al. (2016) for Turkish fathers.

## **MATERIAL AND METHOD**

In this study, a methodological research design was preferred to test the validity and reliability of the Father Self-Efficacy Scale for Turkish fathers with children aged 12-36 months. In the process of scale adaptation, a five-step process determined among the recommendations of the International Test Commission (ITC, 2017) was planned. Firstly, evidence of the language validity of the translation of the items into Turkish and the response options was obtained. In the second step, evidence for the construct validity of the scores obtained with the adapted scale was obtained, and in the third step, evidence for the reliability properties of the scores obtained with the scale was obtained. Then, evidence for the criterion-based validity of the adapted scale and, finally, evidence for test-retest reliability was obtained.

Firstly, the scale items were translated into Turkish by three expert academics with a good command of English. The translations were evaluated by a team of seven academics from four different fields (child development, preschool, psychology, and measurement and evaluation). The Turkish form was translated into English by two non-field experts and two field experts who had not seen the English version of the form before. The team of seven academicians resolved the differences between the translations. The same team of experts confirmed the similarity of the items in the original English form of the scale and the translated form. Finally,

the English form was submitted to the opinion of one of the researchers who developed the original scale. As a result of the positive feedback received that the items in the original English form retained the intended meaning, the Turkish form was created. Face-to-face cognitive interviews were conducted with eight fathers to evaluate how the Turkish form of the scale was perceived and responded to by the fathers. The interviews were recorded with a voice recorder and the data were analysed and analysed. In the 2nd item of the scale, the concept of 'environment' in the statement 'I know how to encourage my child to take care of his/her environment' was perceived as social environment by some fathers, while some fathers interpreted it as physical environment. The researchers who developed the scale (Sevigny et al., 2016) were asked what the intended meaning of this item was. Since the researchers stated that this item was related to the physical environment/nature, the item was edited as 'I know how to encourage my child's interest in nature'. It was determined that the other items of the scale were correctly understood and interpreted by the fathers.

### **Participants**

The participants of this study consisted of fathers living in different provinces of Türkiye with children aged 12-36 months. The Turkish version of the scale was delivered to 1266 fathers. After analysing the fathers' responses to the scale, some scales were excluded from the study, and 1142 fathers constituted the study group. When the ages of the fathers who participated in the study were analysed, fathers aged 21-30 years constituted 20% of the total, fathers aged 31-40 years constituted 66%, and fathers aged 41 years and older constituted 14%. Of the participant fathers, 0.3% were literate, 6% had primary school, 8% secondary school, 24% high school, 52% undergraduate, and 10% graduate degrees. 28% of the fathers have one child, 42% have two children, and 30% have three or more children. 49.47% (N=565) of the fathers had a girl child and 50.52% had a boy child. Eleven fathers participating in the study did not specify their educational status, four fathers did not specify their age, ten fathers did not specify the gender of their children, and two fathers did not specify the number of children they had.

### **Data Collection Tools**

In addition to the Fathering Self-Efficacy Scale adapted into Turkish, the Brief Symptom Inventory and the Marital Competence Scale were also used in this study to prove the criterion validity of the scale.

### **Fathering Self-Efficacy Scale**

The scale developed by Sevigny et al. (2016) to determine fathers' self-efficacy levels based on their parenting experiences consists of 20 items. The scale consists of three sub-dimensions: positive involvement, direct care, and financial responsibility. The scale has a Likert-type rating (1-strongly disagree; 9-completely agree), and a total score can also be calculated. Internal consistency coefficients were 0.90 for positive involvement, 0.68 for direct care, 0.85 for financial responsibility, and 0.88 for father self-efficacy (Sevigny et al., 2016).

### **Brief Symptom Inventory (Anxiety)**

Anxiety perceptions of the fathers were determined with the Anxiety subscale of the Brief Symptom Inventory. The Turkish adaptation of the inventory developed by Derogatis (1992) was conducted by Şahin and Durak (1994) in three separate studies, and it was found that the test was a valid and reliable tool in the assessment of psychological symptoms. The inventory is a Likert-type scale consisting of 53 items and graded between 0-4. The inventory was found to have a 5-factor structure including anxiety (13 items), depression (12 items), somatisation (9 items), anger/aggression (7 items), and negative self (12 items). In this study, only the 13-item form related to the anxiety sub-dimension was used. In the adaptation study conducted by Şahin and Durak (1994), Cronbach's  $\alpha$  values of the anxiety subscale were found between 0.81 and 0.87 in three studies in which the psychometric properties of the scale were examined.

### **Marital Competence Scale**

The Marital Competence Scale, which was used to obtain criterion-based validity evidence, was developed by Cihan Güngör and Özbay (2006). The scale consists of 33 items with two dimensions: relationship with spouse and relationship with close environment, and is scored on a 5-point Likert scale. Cronbach's  $\alpha$  for the relationship with the spouse dimension of the Marital Competence Scale was 0.82, and Cronbach's  $\alpha$  for the relationship with the environment dimension was 0.83.

### **Data Collection and Analysis**

During the data collection process, different methods were followed in delivering the scale form to the fathers, and written and verbal consent was obtained from the fathers. In Adana, Osmaniye, and Gaziantep provinces, firstly, the forms were applied to the fathers who had children between the ages of 12-36 months in the researchers' neighbourhoods. Secondly, these fathers were asked to be a reference for reaching other fathers with children between the ages of 12-36 months in their environment, and the fathers who agreed were included in the study. In addition, kindergartens and nurseries in these three provinces were visited, and the

scale forms were applied to the fathers reached. Finally, the scales were delivered and applied to fathers with children between the ages of 12-36 months through preschool teachers who graduated from the universities where the researchers work and who work in different provinces of Türkiye.

Confirmatory factor analysis (CFA) performed with the Mplus programme Version 8.7 ensured the construct validity of the scale, whose language validity was also ensured (Muthen & Muthen, 1998-2012). To determine whether the original factor structure was preserved in the scale's adaptation for Turkish fathers, the original structure was repeated with CFA.

Reliability evidence was obtained with Cronbach's Alpha statistic calculated separately for each factor by including the items loaded by the same factor in the calculation together (Cronbach, 1951). In addition, Raykov's Rho (Raykov, 1997) reliability statistic was calculated based on the confirmatory factor analysis results to strengthen the reliability evidence.

For criterion-related validity, 215 fathers were given the anxiety subscale of the Brief Symptom Inventory, and 174 fathers were given the Marital Competence Scale, and the correlation between them and the Father Self-Efficacy Scale was calculated. Finally, the Father Self-Efficacy Scale was delivered to 118 fathers who declared that they could participate in the study again after a three-week interval, and 108 of them completed the form again. Based on the assumption that the fathers' self-efficacy levels of the fathers who re-answered the form three weeks apart did not change, the correlation between the dimension scores obtained in the two applications was calculated. The criteria presented by Schober, Boer & Schwarte (2018) were taken into consideration when interpreting the estimated correlation statistics for criterion-based validity and test-retest reliability.

### **Limitations of the Study**

The measurement tools used in this study were based on fathers' self-reports, and a cross-sectional approach was used. The results of the study are preliminary for further research. Further research is needed for the use of father self-report measures of father self-efficacy and related factors.

### **Ethical Aspects of the Study**

Ethics committee approval for the research was obtained from Çukurova University Scientific Research and Publication Ethics Committee in the Field of Social Sciences and Humanities (2021/15). The individuals participating in the study were told that it was essential to be voluntary, and their verbal and written consent was obtained by explaining the purpose of the research.

## RESULT

The findings obtained from the analyses of the construct validity (confirmatory factor analysis, criterion-based validity, and inter-dimensional relationship) and reliability (test-retest) of the scores obtained from the scale are given below.

### Findings Related to Construct Validity

Chi-square statistics, standardised root-mean-square residual (SRMR), root-mean-square-approximation error (RMSEA), and comparative fit index (CFI), which are among the most widely used in the literature, were used to evaluate the model fit of the Turkish version of the Father Self-Efficacy Scale. Traditionally, SRMR values below .05, RMSEA values below .06, and CFI and TLI values above .95 are accepted as indicators of a well-fit model (Hu & Bentler, 1999). In addition, CFI and TLI values greater than .90, SRMR values less than .08, and RMSEA values less than .10 are indicators of acceptable model-data fit (Garson, 2012; Harrington, 2009). The model-data fit statistics of the three confirmatory factor analyses conducted for the construct validity of the Turkish form of the Father Self-Efficacy Scale are given in Table 1.

**Table 1.** Father Self-Efficacy Scale Confirmatory Factor Analyses Model-Data Fit Statistics

|                | Chi Square | Degree of freedom | CFI  | TLI  | RMSEA | SRMR |
|----------------|------------|-------------------|------|------|-------|------|
| DFA 1          | 1264.690   | 167               | .932 | .923 | .076  | .049 |
| DFA 2          | 1214.480   | 149               | .933 | .923 | .079  | .049 |
| DFA 3          | 1214.481   | 149               | .933 | .923 | .079  | .049 |
| Acceptable Fit | -          | -                 | >.90 | >.90 | <.08  | <.06 |
| Good Fit       | -          | -                 | >.95 | >.95 | <.06  | <.06 |

Note: CFA1 includes the original 20-item three-factor structure, CFA2 includes the 19-item three-factor structure obtained by removing the 15th item, and CFA3 includes the 19-item three-factor structure plus the second-stage factor of father self-efficacy.

When Table 1 is examined, it can be said that the model-data fit of all three CFA models is acceptably good. The findings regarding the factor structure of the Turkish version of the Father Self-Efficacy Scale showed that the Turkish version of the scale preserved the original three-dimensional structure and the items collected in each dimension in the original scale were collected under the same dimensions in the Turkish version (the first 12 items in the positive involvement dimension, the next 4 items in the direct care dimension and the last 4 items in the financial responsibility dimension). However, the standardized factor loading of the 15th item in the direct care sub-dimension was found to be very low (0.308), and this item was removed from the scale, and a second confirmatory factor analysis was conducted. In addition to the 3-factor structure with 19 items, a third confirmatory factor analysis including the second-tier

factor of father self-efficacy, was also conducted. The findings of the factor structure of the Turkish form of the Father Self-Efficacy Scale obtained in all three analyses are presented in Table 2.

**Table 2.** Results Related to the Factor Structure of the Father Self-Efficacy Scale Turkish Form

|                                 | <b>DFA 1</b>          | <b>DFA 2</b>          | <b>DFA 3</b>  |                       |          |          |
|---------------------------------|-----------------------|-----------------------|---|-----------------------|----------|----------|
|                                 | <b>Factor Loading</b> | <b>Factor Loading</b> | <b>Factor Loading</b>   | <b>Standard Error</b> | <b>t</b> | <b>p</b> |
| <b>Positive Engagement</b>      |                       |                       |   |                       |          |          |
|                                 |                       |                       | <b>Raykov <math>\rho = .861</math>, Cronbach <math>\alpha = 0.78</math></b> |                       |          |          |
| Item 1                          | .60                   | .60                   | .60   | .02                   | 29.39    | <.001    |
| Item 2                          | .53                   | .53                   | .53   | .02                   | 24.20    | <.001    |
| Item 3                          | .37                   | .37                   | .37   | .02                   | 15.44    | <.001    |
| Item 4                          | .63                   | .64                   | .64   | .02                   | 32.69    | <.001    |
| Item 5                          | .54                   | .54                   | .54   | .02                   | 25.23    | <.001    |
| Item 6                          | .67                   | .67                   | .67   | .02                   | 32.99    | <.001    |
| Item 7                          | .56                   | .56                   | .56   | .02                   | 26.26    | <.001    |
| Item 8                          | .65                   | .65                   | .65   | .02                   | 30.91    | <.001    |
| Item 9                          | .64                   | .64                   | .64   | .02                   | 31.96    | <.001    |
| Item 10                         | .68                   | .68                   | .67   | .02                   | 31.71    | <.001    |
| Item 11                         | .56                   | .56                   | .55   | .03                   | 22.16    | <.001    |
| Item 12                         | .57                   | .57                   | .57   | .02                   | 23.88    | <.001    |
| <b>Direct Care</b>              |                       |                       |   |                       |          |          |
|                                 |                       |                       | <b>Raykov <math>\rho = .788</math>, Cronbach <math>\alpha = 0.71</math></b> |                       |          |          |
| Item 13                         | .77                   | .78                   | .78   | .02                   | 39.13    | <.001    |
| Item 14                         | .76                   | .77                   | .77   | .02                   | 36.90    | <.001    |
| Item 15                         | .31                   | —                     | —   | —                     | —        | —        |
| Item 16                         | .67                   | .68                   | .68   | .03                   | 26.81    | <.001    |
| <b>Financial Responsibility</b> |                       |                       |   |                       |          |          |
|                                 |                       |                       | <b>Raykov <math>\rho = .876</math>, Cronbach <math>\alpha = 0.76</math></b> |                       |          |          |
| Item 17                         | .83                   | .83                   | .83   | .02                   | 55.92    | <.001    |
| Item 18                         | .89                   | .89                   | .89   | .01                   | 77.99    | <.001    |
| Item 19                         | .89                   | .89                   | .89   | .01                   | 75.49    | <.001    |
| Item 20                         | .56                   | .56                   | .56   | .02                   | 24.25    | <.001    |
| <b>Father Self-Efficacy</b>     |                       |                       |   |                       |          |          |
|                                 |                       |                       | <b>Raykov <math>\rho = .935</math>, Cronbach <math>\alpha = 0.80</math></b> |                       |          |          |
| Positive Engagement             | —                     | —                     | .80   | .04                   | 17.98    | <.001    |
| Direct Care                     | —                     | —                     | .68   | .04                   | 17.56    | <.001    |
| Financial Responsibility        | —                     | —                     | .44   | .03                   | 13.54    | <.001    |

When Table 2 is examined, it is seen that the factor loads of 12 indicator variables of the positive engagement sub-dimension vary between .37 and .67, the factor loads of 3 indicator variables of the direct care sub-dimension vary between .68 and .78, and the factor loads of 4 indicator variables of the financial responsibility sub-dimension vary between .56 and .89. The factor loads representing the relationship between the second-tier dimension of father self-efficacy and the first-tier sub-dimensions ranged between .44 and .80. In addition, the correlation between the dimensions of the scale was examined in CFA 2 and it was seen that three factors were significantly related to each other. Positive engagement and direct care ( $r = .54$ ,  $p < .001$ ) have a positive and moderate relationship. Positive engagement and financial

responsibility ( $r = .35$ ,  $p < .001$ ) have a positive and weak relationship. Finally, direct care and financial responsibility ( $r = .30$ ,  $p < .001$ ) have a positive and weak relationship.

As a result of the statistical analysis for the anxiety scale, Cronbach's  $\alpha$  was found to be .76. A negative and weak relationship of  $-0.27$  was found between positive engagement and anxiety. A negative and weak relationship of  $-0.23$  was found between direct care and anxiety. A negative but negligible relationship of  $-.03$  was found between financial responsibility and anxiety. In addition, a negative and weak relationship of  $-.32$  was found between second-tier father self-efficacy and anxiety.

As a result of the statistical analyses conducted for the Marital Competence Scale, Cronbach's  $\alpha$  was found to be .82 for the relationship with spouse sub-dimension and .83 for the relationship with the environment sub-dimension. A weak positive relationship of  $0.39$  was found between positive engagement and the spousal relationship dimension. A weak positive relationship of  $0.18$  was found between direct care and spousal relationship. A weak positive relationship of  $0.26$  was found between financial responsibility and relationship with spouse. In addition, a moderate positive relationship of  $.44$  was found between the second-level dimension of father self-efficacy and the relationship with the spouse dimension. Finally, a weak positive relationship of  $0.33$  was found between positive engagement and the relationship with the environment dimension. A weak positive relationship of  $0.14$  was found between direct care and the relationship with the environment. A weak positive relationship of  $0.20$  was found between financial responsibility and relationship with the environment. In addition, a moderate positive relationship of  $.36$  was found between the second-level dimension of father self-efficacy and the relationship with the environment dimension.

### **Results Related to Reliability**

Cronbach's  $\alpha$  reliability statistics were calculated for each sub-dimension and second-tier dimension of the Father Self-Efficacy Scale, and it was found that the sub-dimension and second-tier dimension scores (positive engagement .78, direct care .71, and financial responsibility .76, and father self-efficacy .80) showed sufficient internal consistency. In addition, Raykov's Rho ( $\rho$ ) (Raykov, 1997) reliability statistic was calculated based on the confirmatory factor analysis results to strengthen the reliability evidence. The Raykov's  $\rho$  value for the positive engagement dimension factor scores was .86, the Raykov's Rho ( $\rho$ ) value for the direct care dimension factor scores was .79, and the Raykov's Rho ( $\rho$ ) value for the financial responsibility dimension factor scores was .88. In addition, the Raykov's Rho ( $\rho$ ) value calculated for the factor scores of the second-tier father self-efficacy dimension was calculated

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as .94. The reliability statistics calculated for the factor scores of the dimensions indicate acceptable/good reliability.

With 108 fathers who completed the Father Self-Efficacy Scale again after a three-week break, Cronbach's  $\alpha$  was recalculated for the three dimensions and found to be .87 for the positive engagement dimension, .85 for the direct care dimension, and .76 for the financial responsibility dimension. In addition, a Cronbach's  $\alpha$  of .87 was found for the second-tier dimension of father self-efficacy. The correlation between the two applications of the positive engagement subscale score was .61 ( $p < .001$ ) (positive and moderate relationship), the correlation between the two applications of the direct care subscale score was .74 ( $p < .001$ ) (positive and high relationship), and the correlation between the two applications of the financial responsibility subscale score was .77 ( $p < .001$ ) (positive and high relationship). In addition, the correlation between the two applications of the father self-efficacy second tier dimension score was found to be .70 ( $p < .001$ ) (positively highly correlated). The positive, moderate, and high correlations between the two administrations were presented as evidence of test-retest reliability.

## DISCUSSION

In this study, the validity and reliability of the Fathering Self-Efficacy Scale, which was designed by Sevigny et al. (2016) to measure fathers' parenting self-efficacy based on fathers' perceptions, was examined within the Turkish cultural context. This study is the first to evaluate the validity and factor structure of the Fathering Self-Efficacy Scale on a sample from a different culture. The findings of the study indicate that the Father Self-Efficacy Scale is a valid and reliable instrument for assessing parenting self-efficacy in Turkish fathers.

In line with the purpose of the study, the factor structure of the scale was first examined. As a result of the Confirmatory Factor Analysis (CFA), it was determined that the Turkish form of the scale preserved the original three-dimensional structure. Although the model-data fit obtained as a result of CFA was acceptable, it was determined that the standardized factor loading of the 15th item in the direct care sub-dimension was very low. This item also had the lowest factor loading among the other items in the original scale (Sevigny et al., 2016). As a result of the second confirmatory factor analysis conducted by removing the item in question, it was seen that the model-data fit tested was acceptably good. Although the scale has a good reliability in general, the internal consistency value of the direct care dimension was found to be lower than the other dimensions, both in the original scale development study and in the

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current adaptation study. This low internal consistency has been interpreted by Sevigny and colleagues as an indication that the direct care dimension needs to be further improved.

It is thought that gender roles in Turkish society are effective in the low internal consistency value of the direct care dimension compared to other dimensions. Parents' parenting behaviors and their understanding of parenting are influenced by the structure and cultural characteristics of the society in which they live. In Turkish society, mothers are primarily responsible for the care of the child. At the same time, fathers are mostly responsible for providing the family's livelihood and disciplining the child. Fathers are mostly involved in activities related to meeting the financial needs of the family and do not participate in the care of the child as much as mothers (Gedik, 2020; Mercan & Tezel Şahin, 2017; Öğüt, 1998; Taşkın, 2011; TÜİK, 2022). This also explains why the financial responsibility dimension of the scale has a higher internal consistency value than the other dimensions. According to social-cognitive theory (Bandura, 1997), mothers and fathers may perceive parenting tasks as important to different degrees and may be more effective and more involved in tasks they perceive as important, while they may be less effective in tasks they perceive as less important. The fact that Turkish fathers reported lower self-efficacy in the direct care dimension and higher self-efficacy in the financial responsibility dimension is thought to be since they perceive meeting the financial needs of the family as a more prioritized and important task, and that they participate more in this area. Differences in the roles and responsibilities imposed on mothers and fathers by gender and, as a result, parents' different evaluations of the importance of parenting tasks and different parenting practices reveal the importance of developing and using instruments that reflect men's parenting beliefs to assess fathers' self-efficacy.

Within the scope of construct validity of the father self-efficacy scale, inter-dimensional relationship analyses, Cronbach's  $\alpha$ , and Raykov's  $\rho$  internal consistency coefficient analyses were also conducted. Internal consistency analyses revealed that all three sub-dimensions of the scale had sufficient internal consistency. These findings support the findings of Sevigny et al. (2016) in the scale development study that the subscales of the scale have sufficient internal consistency. Analyses examining the relationships between the sub-dimensions of the scale show that there is a significant relationship between the three sub-dimensions. However, the relationship between the positive engagement and direct care sub-dimensions was found to be greater than the relationship between the financial responsibility sub-dimension and the other sub-dimensions in both the original scale development study and the current adaptation study. The ability to provide for the family is related to fathering behaviors (Allen, Daly & Ball, 2012; Christiansen & Palkovitz, 2001; Sevigny et al., 2016), it is seen as a very important

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responsibility for fathers both historically and today (Christiansen & Palkovitz, 2001; Lamb, 2000). However, it is also recognized that providing for the family is an important dimension of fatherhood that typically does not require direct interaction with the child (Pleck, 2010), such as direct care and positive engagement dimensions. Therefore, a relationship between fathers' beliefs about financial responsibility and their beliefs about having the necessary skills to take care of their children and provide direct care for them may not be expected.

In terms of criterion-related validity, a negative relationship was found between the positive engagement and direct care sub-dimensions and general self-efficacy levels and fathers' anxiety levels, while no relationship was found between the financial responsibility sub-dimension and fathers' anxiety levels. It can be said that fathers' perceptions of efficacy for activities that require interaction with the child and participation in child care and general self-efficacy levels decrease as fathers' anxiety levels increase, and increase as anxiety levels decrease. This finding may be related to the fact that positive engagement and direct care sub-dimensions include activities that require direct interaction with the child, while the financial responsibility dimension includes activities that do not require direct interaction with the child. In addition, studies in the related literature (Wernand, Kunseler, Oosterman, Beekman, & Schuengel, 2014; Wilson & Durbin, 2010) show that parents' psychological characteristics, such as anxiety and depression, affect parenting self-efficacy.

In terms of criterion-related validity, a weak positive relationship was found between the sub-dimensions of the father self-efficacy scale (positive engagement, direct care, and financial responsibility) and the sub-dimensions of the marital competence scale (relationship with spouse, relationship with environment). In addition, it was found that there was a positive and moderate relationship between fathers' self-efficacy levels and the sub-dimensions of the marital competence scale, and that paternal self-efficacy was more highly related to the relationship with spouse dimension than to the relationship with the environment dimension. Based on this finding, it can be stated that paternal self-efficacy is affected by marital relationship, and as marital satisfaction increases, paternal self-efficacy also increases, and this is consistent with the literature (Belsky, 1984; Seigny & Loutzenhiser, 2010). It is thought that the moderate positive relationship between paternal self-efficacy and marital relationship in the current study is since parenting self-efficacy is closely related to competent parenting behaviors (Jones & Prinz, 2005) and marital relationship has an effect on parenting self-efficacy as well as parenting behaviors. In addition, in the literature, marital quality in early childhood is associated with fathers' parenting quality (Erel & Burman, 1995; Stover et al, 2016; Stroud, Durbin, Wilson & Mendelsohn, 2011) and that marital relationship may have a relatively

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greater effect on paternal parenting than maternal parenting (Bernier, Jarry-Boileau & Lacharité, 2014; Cummings, Merrilees & George, 2010; Stroud et al., 2011).

## CONCLUSION

This study, in which the validity and reliability study of the Fathering Self-Efficacy Scale (Sevigny et al., 2016), which was developed to measure parenting self-efficacy based on fathers' perceptions, was conducted in Turkish culture, shows that the Fathering Self-Efficacy Scale is a valid and reliable tool for assessing parenting self-efficacy in Turkish fathers. As a result of the analyses, it was seen that the scale retained the original three-dimensional structure of “positive engagement, direct care, and financial responsibility”, and the total number of items decreased from 20 to 19 as a result of the removal of one item from the direct care dimension. The Marital Competence Scale (MCS) and the Anxiety dimension of the Brief Symptom Inventory were used for criterion-based validity. A small and positive relationship was found between the sub-dimensions of the Father Self-Efficacy Scale and the MCS sub-dimensions. While there was a negative and small-medium relationship between the direct care and positive engagement sub-dimensions of the Father Self-Efficacy Scale and Anxiety, there was no relationship between the financial responsibility sub-dimension and anxiety. Test-retest reliability was found to be high. The results of these analyses indicate that the Turkish version of the scale is suitable for Turkish culture in determining the self-efficacy of fathers with children aged 12-36 months, both with its three sub-dimensions and 19 items and its overall total score.

## Note

The research carried out within the scope of the TÜBİTAK 1001 project (project no 121K470) was presented as an abstract paper at the 4th International Congress on Educational Research (IDU-ICER'22) on November 11-12, 2022.

## REFERENCES

- Albanese, A. M., Russo, G. R. & Geller, P. A. (2019). The role of parental self-efficacy in parent and child well-being: A systematic review of associated outcomes. *Child Care Health and Development*, 45(3), 333-363. DOI: 10.1111/cch.12661
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Freeman.
- Bandura, A. (2002). Social cognitive theory in cultural context. *Applied Psychology*, 51, 269–290. <http://dx.doi.org/10.1111/1464-0597.00092>
- Beaton, D. E., Bombardier, C., Guillemin, F. & Ferraz, M. B. (2000). Guidelines for the process of cross-cultural adaptation of self-report measures. *SPINE*, 25 (24), 3186–3191.

- Belsky, J. (1984). The determinants of parenting: A process model. *Child Development*, 55(1), 83–96. <http://dx.doi.org/10.2307/1129836>.
- Bernier, A., Jarry-Boileau, V., & Lacharité, C. (2014). Marital satisfaction and quality of father–child interactions: The moderating role of child gender. *The Journal of Genetic Psychology: Research and Theory on Human Development*, 175(2), 105–117. <http://dx.doi.org/10.1037/a0017415>.
- Bor, W., & Sanders, M. R. (2004). Correlates of self-reported coercive parenting of preschool-aged children at high risk for the development of conduct problems. *Australian and New Zealand Journal of Psychiatry*, 38(9), 738–745. <https://doi.org/10.1111/j.1440-1614.2004.01452.x>
- Christiansen, S. L., & Palkovitz, R. (2001). Why the "good provider" role still matters. *Journal of Family Issues*, 22, 84–106.
- Cihan Güngör, H. & Özbay, Y. (2006). Evlilikte yetkinlik ölçeğinin geliştirilmesi: Geçerlik ve güvenirlik çalışması. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 3 (29), 79-93.
- Coleman, P. K. & Karraker, K. H. (1997). Self-efficacy and parenting quality: Findings and future applications. *Developmental Review*, 18, 47–85.
- Coleman, P. K. & Karraker, K. H. (2000). Parenting self-efficacy among mothers of school-age children: Conceptualization, measurement, and correlates. *Family Relations*, 49 (1), 13-24.
- Coley, R. L., & Coltrane, S. (2007). Commentary: Impact of father involvement on children’s developmental trajectories: New findings panel for the national fatherhood forum. *Applied Developmental Science*, 11(4), 226–228. doi: 10.1080/10888690701762134
- Craig, L. (2006). Does father care mean fathers share? A comparison of how mothers and fathers in intact families spend time with children. *Gender & Society*, 20(2), 259-281. doi: 10.1177/0891243205285212
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297–334. <https://doi.org/10.1007/BF02310555>
- Cummings, E. M., Merrilees, C. E. & George, M. (2010). Fathers, marriages and families: Revisiting and updating the framework for fathering in family context. M. Lamb (Ed.), *The role of the father in child development* (5. baskı) içinde (154–176). New York, NY: John Wiley & Sons.
- de Montigny, F. & Lacharite, C. (2005). Perceived parental efficacy: Concept analysis. *Journal of Advanced Nursing*, 49, 387-396. <http://dx.doi.org/10.1111/j.1365-2648.2004.03302.x>
- Dette-Hagenmeyer, D.E., Erzinger, A.B.& Reichle, B. (2014). The changing role of the father in the family. *European Journal of Developmental Psychology*, 11(2), 129–135. 10.1080/17405629.2014.883313
- Donithen, R. & Schoppe-Sullivan, S. (2022). Correlates and predictors of parenting self-efficacy in new fathers. *J Fam Psychol.* 36(3), 396-405. doi: 10.1037/fam0000910.
- Dumka, L. E., Stoerzinger, H. D., Jackson, K. M. & Roosa, M.W. (1996) Examination of the cross-cultural and cross-language equivalence of the parenting self-agency measure. *Family Relations*, 45, 216–222.
- Erel, O., & Burman, B. (1995). Interrelatedness of marital relations and parent-child relations: A meta-analytic review. *Psychological Bulletin*, 118(1), 108–132. <http://dx.doi.org/10.1037/0033-2909.118.1.108>.
- Fang, Y., Boelens, M., Windhorst, D. A., Raat, H. & van Grieken, A. (2021). Factors associated with parenting self-efficacy: A systematic review. *Journal of Advanced Nursing*, 77, 2641–2661. DOI: 10.1111/jan.14767
- Fang, Y., van Grieken, A., Fierloos, I. N., Windhorst, D. A., Jonkman, H., Hosman, C. M. H., et al. (2022). Parental, child and socio-contextual factors associated with parenting self-efficacy among parents of children aged 0–7 years old: the CIKEO study. *Social Psychiatry and Psychiatric Epidemiology*, 57, 623–632. <https://doi.org/10.1007/s00127-021-02161-2>

- Flouri, E. (2005). *Fathering and child outcomes*. John Wiley & Sons Ltd. <https://doi.org/10.1002/9780470713228>
- Garson, G. D. (2012). *Structural equation modelling*. Asheboro, NC: Statistical Associates Publishers.
- Gedik, E. (2020). The relationship between father and child in daily life narratives of female academicians with children in pre-school period. *Kültür ve İletişim*, 23(45), 118-141.
- Giallo, R., Treyvaud, K., Cooklin, A. & Wade, C. (2013). Mothers' and fathers' involvement in home activities with their children: Psychosocial factors and the role of parental self-efficacy. *Early Child Development and Care*, 183 (3-4), 343-359. DOI:10.1080/03004430.2012.711587
- Harrington, D. (2009). *Confirmatory factor analysis*. New York, NY: Oxford University Press.
- Hernández, A., Hidalgo, M. D., Hambleton, R. K. & Gómez-Benito, J. (2020). International Test Commission guidelines for test adaptation: A criterion checklist. *Psicothema*, 32 (3), 390-398.
- Holmes, E.K. & Huston, A.C. (2010). Understanding positive father-child interaction: Children's, fathers', and mothers' contributions. *Fathering*, 8(2), 203-225.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structural analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55. <http://dx.doi.org/10.1080/10705519909540118>
- International Test Commission. (2017). *The ITC Guidelines for translating and adapting tests* (Second edition). [www.InTestCom.org]
- Jacobs, J. N., & Kelley, M. L. (2006). Predictors of paternal involvement in childcare in dual-earner families with young children. *Fathering*, 4, 23- 47. <http://dx.doi.org/10.3149/fth.0401.23>
- Johnston, C. & Mash, E.J. (1989). A measure of parenting satisfaction and efficacy. *J Clin Child Psychol*, 18(2):167-175
- Jones, J., & Mosher, W. D. (2013). Fathers' involvement with their children: United States, 2006-2010. *National Health Statistics Reports*, 71, 1-21. <http://www.cdc.gov/nchs/data/nhsr/nhsr071.pdf>
- Jones, T. L. & Prinz, R. J. (2005). Potential roles of parental self-efficacy in parent and child adjustment: A review. *Clinical Psychology Review*, 25, 341 - 363.
- Junttila, N., Aromaa, M., Rautava, P., Piha, J. & Riihämä, H. (2015). Measuring multidimensional parental self-efficacy of mothers and fathers of children ages 1.5 and 3 years. *Family Relations*, 64 (December 2015): 665-680. DOI:10.1111/fare.12161
- Lamb, M. E. (2000). The history of research on father involvement. *Marriage & Family Review*. 29 (2-3), 23-42. [http://dx.doi.org/10.1300/J002v29n02\\_03](http://dx.doi.org/10.1300/J002v29n02_03)
- Lamb, M. E., & Lewis, C. (2010). The development and significance of father-child relationships in two-parent families. In M. Lamb (Ed.), *The role of the father in child development* (5th ed., pp. 94-153). New York, NY: Wiley.
- Leerkes, E. M., & Crockenberg, S. C. (2002). The development of maternal self-efficacy and its impact on maternal behaviour. *Infancy*, 3, 227-247. [http://dx.doi.org/10.1207/S15327078IN0302\\_7](http://dx.doi.org/10.1207/S15327078IN0302_7)
- MacPhee D., Benson, J. B. & Bullock D. (1986). Influences on maternal self-perceptions. [Conference presentation]. International Conference on Infant Studies, Los Angeles, CA, United States.
- Marsiglio, W., & Cohan, M. (2000). Contextualizing father involvement and paternal influence. *Marriage & Family Review*, 29 (2-3), 75-95. [http://dx.doi.org/10.1300/J002v29n02\\_06](http://dx.doi.org/10.1300/J002v29n02_06)
- Mercan, Z. & Tezel Şahin, F. (2017). Babalık rolü ve farklı kültürlerde babalık rolü algısı. *Uluslararası Erken Çocukluk Eğitimi Çalışmaları Dergisi*. 2 (2), 1-10.

- Murdock, K. W. (2013). An examination of parental self-efficacy among mothers and fathers. *Psychology of Men & Masculinity*, 14, 314–323. <http://dx.doi.org/10.1037/a0027009>
- Muthén, L.K. & Muthén, B.O. (1998-2017). Mplus User's Guide. Eighth Edition. Los Angeles, CA: Muthén & Muthén
- O'Neil, J., Wilson, M. N., Shaw, D. S., & Dishion, T. J. (2009). The relationship between parental efficacy and depressive symptoms in a diverse sample of low income mothers. *Journal of Child and Family Studies*, 18(6), 643–652. <https://doi.org/10.1007/s10826-009-9265-y>
- Öğüt, Ü. (1998). Father involvement with respect to the age and gender of preschool children and the employment status of the mother in a sample of upper and middle socio-economic status Turkish fathers. Unpublished Master's Thesis. Boğaziçi University, İstanbul.
- Paquette, D. (2004). Theorizing the father-child relationship: Mechanisms and developmental outcomes. *Human Development*, 47, 193–219. DOI: 10.1159/000078723
- Pinto, T. M., Figueiredo, B., Pinheiro, L. L. & Canário, C. (2016). Fathers' parenting self-efficacy during the transition to parenthood. *Journal of Reproductive and Infant Psychology*, 34 (4), 343-355, DOI: 10.1080/02646838.2016.1178853
- Pleck, J. H. (2010). Paternal involvement: Revised conceptualizations and theoretical linkages with child outcomes. In M. Lamb (Ed.), *The role of the father in child development* (5th ed., pp. 58–93). New York, NY: Wiley
- Pleck, J. H. (2012). Integrating father involvement in parenting research. *Parenting: Science and Practice*, 12:2-3, 243-253. <http://dx.doi.org/10.1080/15295192.2012.683365>
- Raykov, T. (1997). Estimation of composite reliability for congeneric measures. *Applied Psychological Measurement*, 21(2), 173–184. doi:10.1177/01466216970212006
- Salonen, A. H., Kaunonen, M., Åstedt-Kurki, P., Järvenpää, A-L, Isoaho, H. & Tarkka, M.T. (2009). Parenting self-efficacy after childbirth. *J Adv Nurs* 65(11), 2324–2336.
- Sanders, M. R. & Woolley, M.L. (2005). The relationship between maternal self-efficacy and parenting practices: Implications for parent training. *Child Care Health Dev*, 31(1), 65–73.
- Schober, P., Boer, C., & Schwarte, L. A. (2018). Correlation coefficients: Appropriate use and interpretation. *Anesthesia & Analgesia*, 126(5), 1763-1768. DOI: 10.1213/ANE.0000000000002864
- Sevigny, P. R. & Loutzenhiser, L. (2010). Predictors of parenting self-efficacy in mothers and fathers of toddlers. *Child: Care, Health and Development*, 36 (2), 179–189. doi:10.1111/j.1365-2214.2009.00980.x
- Sevigny, P. R., Loutzenhiser, L. & McAuslan, P. (2016). Development and validation of the fathering self-efficacy scale. *Psychology of Men & Masculinity*, 17 (1), 92–102.
- Stover, C. S., Zhou, Y., Kiselica, A., Leve, L. D., Neiderhiser, J. M., Shaw, D. S., et al. (2016). Marital hostility, hostile parenting, and child aggression: Associations from toddlerhood to school age. *Journal of the American Academy of Child & Adolescent Psychiatry*, 55(3), 235–242. <http://dx.doi.org/10.1016/j.jaac.2015.12.008>.
- Stroud, C. B., Durbin, C. E., Wilson, S., & Mendelsohn, K. A. (2011). Spill over to triadic and dyadic systems in families with young children. *Journal of Family Psychology*, 25(6), 919–930. <http://dx.doi.org/10.1037/a0025443>.
- Summers, J. A., Raikes, H., Butler, J., Spicer, P., Pan, B., Shaw, S., et al. (1999). Low-income fathers' and mothers' perceptions of the father role: A qualitative study in four early head start communities. *Infant Mental Health Journal*, 20(3), 291-304.

- Şahin, N. H. & Durak, A. (1994). Kısa Semptom Envanteri: Türk gençleri için uyarlanması. (Brief Symptom Inventory-BSI: Adaptation for Turkish Youth). *Türk Psikoloji Dergisi*, 9(31), 44 – 56.
- Taraban, L. & Shaw, D. S. (2018). Parenting in context: Revisiting Belsky's classic process of parenting model in early childhood. *Developmental Review*, 48, 55-81. <https://doi.org/10.1016/j.dr.2018.03.006>
- Taşkın, N. (2011). Çocukların gelişiminde katkıları unutilanlar : babalar. *Eğitime Bakış Dergisi*, 7(20), 43–7.
- Teti, D. M., & Gelfand, D. M. (1991). Behavioral competence among mothers of infants in the first year: The mediational role of maternal self-efficacy. *Child Development*, 62, 918 –929. <http://dx.doi.org/10.2307/1131143>
- Trahan, M. H. (2018). Paternal self-efficacy and father involvement: A bi-directional relationship. *Psychology of Men & Masculinity*, 19(4), 624–634. <https://doi.org/10.1037/men0000130>
- Trahan, M. H. & Shafer, K. (2019). Paternal Self-Efficacy: A Parenting Resilience Factor for Fathers with Depression. *Social Work Research*, 43 (2), 101-112.
- Türkiye İstatistik Kurumu (TÜİK) (2022). İstatistiklerle Kadın, 2022. <https://data.tuik.gov.tr/Bulten/Index?p=%C4%B0statistiklerle-Kad%C4%B1n-2022-49668&dil=1> Erişim Tarihi: 10 Haziran 2023.
- Wells-Parker, E., Miller, D. I., & Topping, J. S. (1990). Development of control-of-outcome scales and self-efficacy scales for women in four life roles. *Journal of Personality Assessment*. 54(3-4), 564–575. [https://doi.org/10.1207/s15327752jpa5403&4\\_12](https://doi.org/10.1207/s15327752jpa5403&4_12)
- Wernand, J., Kunseler, F., Oosterman, M., Beekman, A., & Schuengel, C. (2014). Prenatal changes in parenting self-efficacy: Linkages with anxiety and depressive symptoms in primiparous women. *Infant Mental Health Journal*, 35, 42–50. <http://dx.doi.org/10.1002/imhj.21425>
- Wilson, S., & Durbin, C. E. (2010). Effects of paternal depression on fathers' parenting behaviors: A meta-analytic review. *Clinical Psychology Review*, 30(2), 167–180. <http://dx.doi.org/10.1016/j.cpr.2009.10.007>