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Original Research

The Validity and Reliability Study of The Caregiver-Child Reminiscence Scale: Reminiscence Functions of Turkish Parents

Sena Öz [1], Figen Gürsoy [2]

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Abstract

Objectives: Parents talk to their children about memories of shared/unshared past, and these conversations are referred to as parental reminiscing. Parental reminiscing contributes significantly to varied developmental areas such as autobiographical memory, language, social, and sense of self. There are a limited number of measuring tools to determine reminiscence functions, that is, what purposes parents talk to their children about the past. The main purpose of this study is to adapt the Caregiver-Child Reminiscence Scale (CRS), which allows the scrutinization of the functions of parental reminiscing, to Turkish language and culture and, thus, to contribute to studies investigating cultural differences.
Materials and Methods: The sample included 507 parents with children aged 2-6 years. The Caregiver-Child Reminiscence Scale is a 7-point Likert-type forty-item scale. It has seven sub-scales as Conversations, Relationship Maintenance, Behavioral Control, Teaching/Problem Solving, Emotion Regulation, Self-Functions, and Cognitive Skills.
Results: The Cronbach's Alpha coefficients range between .88-.99. for the sub-scales in this study. The descriptive analyses suggested that the parents aged 29 years and under did reminiscing to provide more behavioral control than those aged between 30-39 years. The participating mothers were reminiscing for maintaining the relationship, teaching/problem solving, emotion-regulation, and self-functions. Parents with high-school or less education were reminiscing more to achieve behavioral control than parents with undergraduate or postgraduate education.
Conclusion: The CRS was found to be a valid and reliable for the Turkish culture. It is believed that it will allow intercultural studies in this field.

Keywords: *Memory, Parents, validity and reliability, Reminiscence functions, Turkish sample*

[1]**Sena Öz (Corresponding Author).** Ankara University, Faculty of Health Sciences, Child Development Department, Ankara/Turkiye, Phone: 03123812350, e-mail: sena.oz@ankara.edu.tr
[2]**Figen Gürsoy**. Ankara University, Faculty of Health Sciences, Child Development Department, Ankara/Turkiye, Phone: 03123812350, e-mail: fgursoy@ankara.edu.tr

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Özgün araştırma

Ebeveyn Anı Anlatım İşlevleri Ölçeğinin Geçerlik Güvenirlik Çalışması: Türk Ebeveynlerin Anımsatma İşlevleri

Sena Öz [1], Figen Gürsoy [2]

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Öz

Amaç: Ebeveynler, çocuklarıyla ortak ya da ortak olmayan geçmişte yaşadıkları anılar üzerinden konuşmaktadırlar ve bu konuşmalara ebeveynlerin anımsatıcı konuşmaları denilmektedir. Ebeveynlerin anımsatıcı konuşmaları; çocuklarının otobiyografik bellek gelişimi, dil gelişimi, sosyal gelişimi, benlik algısı gelişimi gibi farklı gelişimsel alanlarda oldukça önemli katkılar sağlamaktadır. Ebeveynlerin çocuklarıyla yaptıkları geçmiş hakkındaki konuşmaların işlevinin yani hangi amaçlardan dolayı çocuklarıyla geçmiş hakkında konuştuklarının belirlenmesini sağlayan ölçme araçları sınırlıdır. Bu çalışmanın temel amacı da ebeveynlerin çocuklarıyla geçmiş hakkındaki konuşmalarının fonksiyonlarını belirlemeyi sağlayan Ebeveyn Anı Anlatım İşlevi Ölçeği'ni Türk dili ve kültürüne uyarlamak ve böylece kültürel farklılıkları inceleyen çalışmaları geliştirmektir.
Gereç ve Yöntem: 2-6 yaş arasında çocuğu olan 507 ebeveyn çalışma grubunu oluşturmaktadır. Ebeveyn Anı Anlatım İşlevi Ölçeği yedili likert tipte kırk maddeli bir ölçektir. Sohbetler, İlişkiyi Sürdürme, Yönlendirici İşlevler, Davranışsal Kontrol, Öğretim/Problem Çözme, Duygu Düzenleme ve Benlik İşlevi olmak üzere yedi alt boyutu vardır.
Bulgular: Ölçeğin Cronbach Alfa katsayısı alt boyutları için .88-.99 arasında dağılım göstermektedir. Çalışma kapsamında yapılan betimsel analizlere göre ise ebeveynlerden 29 yaş ve altında olanların, 30-39 yaş arasında olanlara göre daha fazla davranışsal kontrol sağlamak amacıyla anımsatma işlevine sahip oldukları görülmüştür. Anneler; babalara göre ilişkiyi sürdürmek, öğretim/problem çözme, duygu düzenleme ve belik işlevleri amaçları ile geçmiş hakkında konuşmakta oldukları belirlenmiştir. Lise ve altı eğitim düzeyine sahip ebeveynler, üniversite ve lisansüstü eğitime sahip ola ebeveynlere göre çocuklarının davranışsal kontrolünü sağlamak için, geçmiş hakkında daha fazla konuşmaktadırlar.
Sonuç: Ebeveyn Anı Anımsatma İşlevi Ölçeğinin Türk dili ve kültürüne uygun geçerli ve güvenilir bir araç olduğu belirlenmiştir. Kültürlerarası çalışmalara olanak sağlayacağı düşünülmektedir.

Anahtar kelimeler: *Ortak anımsama, geçmiş, otobiyografik bellek, Türk ebeveyn anımsatma işlevi*

[1]Sena Öz (Sorumlu Yazar). Ankara Üniversitesi, Sağlık Bilimleri Fakültesi, Çocuk Gelişimi Bölümü, Ankara/Türkiye, Tel: 03123812350, e-posta: sena.oz@ankara.edu.tr
[2]Figen Gürsoy. Ankara Üniversitesi, Sağlık Bilimleri Fakültesi, Çocuk Gelişimi Bölümü, Ankara/Türkiye, Tel: 03123812350, e-posta: fgursoy@ankara.edu.tr

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Introduction

Autobiographical memory is a system that includes life-long events and logs about the self (Tulving, 1972). It is the memory that consists of the events related to one's own life. Accordingly, it can be defined as "the memory of the self" that enables a person to interact with others within both short and long-term goals, embodying his/her existence and purpose in the world (Conway et al., 2004; Fivush, 2011). Autobiographical memory has a function that allows people to organize their individual and social lives and to recall their life stories, starting from the early stages of life when the concept of self begins to form - from the period when the memories of infancy, called childhood amnesia, are not recalled - until the end of life (Howes et al., 1993; Bluck & Habermas, 2000; Kılıç, 2019).

The relationship between caregiver and child in the early stages of life highly influences autobiographical memory, and it is considered a seminal factor in the development of remembering skills (Bauer, 2015). The joint reminiscence process not only contributes to reinforcing the relationship between parents and child but also prepares a suitable ground for the child to understand and internalize his/her experiences and, thus, to build his/her self (Wang, 2004). Parent-child conversations about past experiences in early childhood are a worthy context for the child's cognitive and social-emotional development. A child's understanding of himself/herself and others is one of the leading factors in reaching the quality of the parent-child relationship and gaining language and literacy skills (Wareham & Salmon, 2006; Waters et al., 2019).

Mother-child conversations about the past are often called "joint reminiscence" and are defined as a seminal mechanism in developing the child's recall of his/her personal experiences (Nelson & Fivush, 2004). Various studies suggest that mothers' talking about past experiences with their preschool-age children poses big and persistent individual differences in how children recall and that these differences are linked with children's developing autobiographical memory skills (Farrant & Reese 2000; Bauer & Burch, 2004). Detailed and comprehensive reminiscences between parents and children foster children's autobiographical memory skills. Solid memory skills can help recall early memories (Peterson et al., 2010).

It is well-proven that parental reminiscing bear varied functions: social functions, directive functions, problem-solving, teaching, emotion regulation, and self-functions (Kulkofsky & Koh, 2009). The social function involves reminiscing to establish intimate relationships with others (Alea & Bluck, 2003). In other words, the social function of joint reminiscence is used to establish and maintain relationships between the child and sibling or peers as well as parents (Wang, 2004). In addition, these conversations also provide parents

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with something to talk about and make them have a pleasant time (Hyman & Faries, 1992). It reflects the socialization goals of joint mother-child reminiscence, both explicitly and implicitly (Kulkofsky, 2010). Directive functions include teaching children to recall and reminiscence as a tool in problem-solving and planning their future behaviors (Bluck et al., 2005). Emotion regulation can also be considered a directive function (Bluck et al., 2005). Joint reminiscence contributes to children's development of emotion regulation skills (Fivush et al., 2003). The functions of maternal reminiscing are positively associated with the children's emotional and behavioral problems, and mothers usually give examples of past events to solve such problems of their children (Kulkofsky, 2010). Last but not least, joint reminiscence enables the development of a sense of self. In addition to developing the self, reminiscence is considered a means for the development of self-esteem (Wilson & Ross, 2003), which, in turn, reinforces the sense of self as it enables the parent and child to form a shared social history (Fivush & Vasudeva, 2002).

The life contexts involve press on individuals to remember their past lives in a way that serves the present, and also the future (Bluck et al., 2010). However, it is important to understand the life contexts that include the functional uses of memory are themselves culturally embedded. Especially, the importance of "go global" studies is emerging in order to better understand memory studies (Alea & Wang, 2014). There are some studies that explain the role of culture on memory. For instance, compared to Western cultures, individuals remember their earliest memories at a later age in Eastern cultures (Wang, 2004), which is explained by individualistic and pluralistic cultural factors (Sahin-Acar, 2020). The earliest memories are known to help the organization of personal memories in the future (Fivush, 2011). In a comparative study, the scholars previously found a six-month difference between the earliest memories of Turkish and American adults (Sahin & Mebert, 2013). In addition, studies showed that reminiscence styles of parents with their child (i.e., elaborative, broader, less repetitive, and encouraging the child to speak with open-ended and closed-ended questions) carried culture-specific characteristics (Wang & Leichtman, 2000; Wang & Fivush, 2005; Kulkofsky et al., 2009; Sahin-Acar & Leichtman, 2015). For this reason, we deemed it critical to uncover the suitability of the CRS to the Turkish language and culture. In addition to being a tool to identify different cultural characteristics, it also shows the cultural differences in the functions of parental reminiscence.

Parental reminiscing about shared or unshared memories with their children greatly contributes to children's developmental areas. Knowing the functions of joint reminiscence will allow us to determine why parents recall past events and for what purposes they use these

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functions for their children. Hence, the main purpose of this study was to adapt the Caregiver-Child Reminiscence Scale, which allows us to scrutinize the functions of parental reminiscing, to the Turkish language and culture and, thus, to contribute to studies investigating cultural differences. Within this context, we aimed to determine whether the parents' reminiscing functions differ significantly according to the age of the children, parents' genders, ages, and educational status. In this context, we sought to answer the questions below:

- Is the CRS a valid and reliable measurement tool for the Turkish language and culture?
- Do the scores of CRS have differences with variables such as parent age, parent gender, educational attainment, and child's age?

Materials and Methods

Participants and Demographic Characteristics

The sample of the research consisted of 507 voluntary parents with children aged 2;0-6;11 years. Validity and reliability studies are usually conducted with a sample of at least ten times larger than the number of items in the instrument (Cokluk et al., 2012). Since there are 40 items in the Caregiver-Child Reminiscence Scale (CRS), we aimed to sample at least 400 participants. We used the convenience sampling method and reached the sample via Google Forms shared on the social media parent pages and groups using the pre-determined keywords. This method involves the emergence of the sample independent of the researcher (Buyukozturk et al., 2020). Demographic information of the participating parents (gender, age, educational attainment, and child's age) is shown in Table 1.

Table 1: Demographic characteristics of the sample

Variables	**n**	**%**	**Variables**	**n**	**%**
Age			**Educational Attainment**		
29 years and under	101	19.9	Primary and middle school	13	2.6
30-39 years	363	71.6	High school	69	13.6
40 years and over	43	8.5	Undergraduate	332	65.5
			Postgraduate	93	18.3
Total	507	100.0	**Total**	507	100.0
Gender			**Age (Child)**		
Female	473	93.3	2;0-3;11 years	195	38.5
Male	34	6.7	4;0-6;11 years	312	61.5
Total	507	100.0	**Total**	507	100.0

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As seen in Table 1, 473 (93.3%) of the parents were females and 34 (6.7%) were males. Among them, 101 (19.9%) were 29 years and under, 363 (72.6%) were between 30-39 years, 43 (8.5%) were 40 years and over. Considering the educational attainments, 13 (2.6%) were primary and middle school graduates, 69 (13.6%) were high school graduates, 332 (65.5%) had an undergraduate degree, and 93 (18.3%) had a postgraduate degree. Of their children, 195 (38.5%) were between 2-3 years and 312 (61.5%) were between 4-6 years.

Measures

Caregiver-Child Reminiscence Scale

Kulkofsky and Koh (2009) developed the scale to determine the functions of joint reminiscence. While creating the scale items, the authors reviewed the theoretical and empirical literature regarding the reminiscence functions. They did the pilot study of the generated items with 46 parents and the main study with N=203 parents. Consequently, the researchers excluded the rarely-responded items, added new items according to the responses to the open-ended questions, and reviewed the comprehensibility of the statements. Thus, the 40-item final version of the scale was introduced.

The scale is used to assess the joint reminiscence of parents with children aged 2-6 years. Before administering the scale, relevant instructions are provided to the parents: "*This scale is to evaluate your conversations with your child about past events. These conversations are called "past talk." Past talk may include events that you and your child have experienced together, as well as events that your child may have experienced but you have not. Please answer the following questions by keeping in mind your "past talk" conversations with your child.*" The CRS is a 7-point Likert-type scale consisting of 40 items. It is scored as 1=Never and 7=Always (Kulkofsky, & Koh, 2009).

The scale consists of seven sub-scales. These sub-scales are Social Functions: Conversations (1, 2, 3, 4, 5, 6) and Relationship Maintenance (7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17); Directive Functions: Behavioral Control (18, 19, 20), Teaching/Problem-Solving (21, 22, 23), Emotion Regulation (24, 25, 26, 27, 28, 29, 30), Self-Functions (31, 32, 33, 34, 35), and Cognitive Skills (36, 37, 38, 39, 40).

Social Functions include using reminiscence as a medium to establish intimate relationships with someone. Besides, the Conversations sub-scale covers utilizing reminiscence as a general communication means for entertaining others or just sharing things with them. Directive Functions involves using reminiscence as a medium for teaching recall, gaining problem-solving skills, and shaping future behaviors. Emotion Regulation is also under Directive Functions. Self-Functions aims to use reminiscence as a medium for the development

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of self-esteem, as well as include the purposes of building, maintaining, and expressing the self. Cognitive Skills includes the use of joint reminiscent as a means for the child's understanding of the concepts of memory, recall, and time, and his/her language development (Kulkofsky & Koh, 2009).

Procedure

Before starting the data collection process, the researchers first obtained permission from the responsible authors to adapt the scale to the Turkish language and culture. Then, the ethics committee approval was obtained from the XX Ethics Committee (567865525-050.04.04/75520, 03.11.2020). The scale was translated into Turkish, and the data were collected online via Google Forms. We reached the participants via an online form on the internet pages and groups using the pre-determined keywords (parents, child development etc.) because face-to-face data collection was not possible during the pandemic. Before sharing the data collection tool, we provided the participants with the details about the purpose, content, and process of the study and the pursuit of using their data through a consent form. Those who accepted voluntary participation clicked the "*I agree to participate in the study voluntarily*" box and filled out the online survey in 20 minutes. The data collection procedure lasted between November and December 2020. Upon reaching the targeted number of participants, we terminated the data collection procedure. Since all questions are required to be answered in the Google Form, there was no missing data in the data collected.

Data Analysis

The data collected were analyzed using a statistical package program. In order to validity of the CRS, we used the LISREL program to evaluate the Root Mean Square Error of Approximation (RMSEA), Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Normed Fit Index (NFI), and Comparative Fit Index (CFI). In addition, Cronbach's Alpha value was considered for the Reliability of the CRS.

In order to determine the appropriate analyses, we first examined the kurtosis-skewness values of the scores on the sub-scales of the CRS. We decided the normality of distribution on whether the kurtosis and skewness values showed a distribution between -1 and +1. We investigated whether the scores on the sub-scales showed statistically significant differences by the categories of the independent variables (such as children's ages, parental age, parental gender, and educational attainment), and the correlations of the sub-scales of the CRS. Since distributions were not normal for each category, we used the Mann Whitney-U test with two independent categories, while the Kruskal-Wallis test was utilized with more than two

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categories. According to the results of the normality test, the Pearson correlation test was used to examine the correlation between the sub-scales of the CRS.

Results

Findings Regarding the Validity of the CRS

Validity is about to what extent a test accurately measures the quality desired to be measured. That is, it demonstrates the suitability of a test for its intended use (Sonmez & Alacapınar, 2016; Buyukozturk et al., 2020). Findings regarding the face validity, content validity, and construct of the CRS are respectively given below.

Face Validity of the CRS

Face validity is about whether the measuring tool measures the quality it aims to measure (Sonmez & Alacapınar, 2016). Two translators first translated the original scale into Turkish. After reaching a consensus between the two translations, the scale was translated back into English from its translated version in order to confirm translated document gives the same meaning. We observed that the language of the original scale fitted to its back-translated version. A Turkish Language and Literature Expert reviewed the final version of the scale in terms of its compliance with the Turkish language, and, thus, its face validity was verified.

Content Validity of the CRS

Content validity is that the quality aimed to be measured in the scale includes observed and measurable characteristics. In other words, it is the representation of the items in measuring the behaviors desired to be measured (Sonmez & Alacapınar 2016; Buyukozturk et al., 2020). One of the generally accepted methods of content validity is to seek expert opinions (Alpar, 2016; Buyukozturk et al., 2020). In this study, we submitted the scale to the opinions of five field experts in order to evaluate whether the items in the scale cover functions of caregiver-child reminiscence in the Turkish context. One of the experts is from the field of assessment and evaluation, and four are academic staff in the field of child development. A three-item opinion form (“appropriate”, “not appropriate,” and “should be changed”) was delivered to the experts along with the scale. Experts only checked the compatibility of the CRS with the Turkish language, and did not evaluate the functions of the items. Experts marked all items as “appropriate”. Thus, we reached the final version of the scale considering expert opinions.

Then, we checked the comprehensibility of the scale by performing a pilot implementation with a mother in the scope of the content validity.

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Construct Validity of the CRS

Construct validity shows to what extent the items on a scale allow measuring the quality desired to be measured. In other words, the construct is a whole formed by the interrelated characteristics (Alpar, 2016; Sonmez & Alacapınar, 2016; Buyukozturk et al., 2020). In this study, we utilized Confirmatory Factor Analysis (CFA) to evaluate the construct validity of the scale. CFA aims to assess at what level the model formed by the factors composed of observable variables shows a construct compatible with the real data (Brown, 2015).

The CRS is a scale with 40 items and a 7-factor structure. The sample was composed of 507 participants. Using the LISREL program, we examined whether the data support the original 7-factor structure. The results for the basic model of the CRS are that χ^2 (sd)=3481.89 (733)*, χ^2 / sd=4.75, RMSEA=0.08, GFI=0.99, AGFI=0.99, NFI=0.98, and CFI=0.98.

Sample size highly influences Chi-square value, so we used χ^2/df (3481.89/733=4.75) to decide on the data fit of the model. The program calculated this value to be lower than 5, which suggests a good fit. Root Mean Square Error of Approximation (RMSEA), Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Normed Fit Index (NFI), and Comparative Fit Index (CFI) are also among the parameters to assess the goodness of fit. When the RMSEA index is 0.08 or lower and the other indices are above .90 and close to 1, the model shows a good fit, that is, the difference between the universe covariance matrix and the produced covariance matrix is relative to each other (Hu & Bentler 1999; Tabachnich & Fidell, 2001; Hooper, Coughlan, & Mullen, 2008). The exact (χ2, RMSEA, GFI, AGFI) and comparative (NFI, CFI) fit indices proposed by Hu and Bentler (1998) were considered together in this study. According to the CFA results given in Table 2, the χ^2/df (4.75) value in the model was below 5; the GFI, AGFI, NFI, and CFI values were above .90; and the RMSEA value was below 0.08. Accordingly, we could verify the factorial structure of the CRS through its sub-scales. Standardized solutions for the 7-factor model of the CRS are demonstrated in Figure 1.

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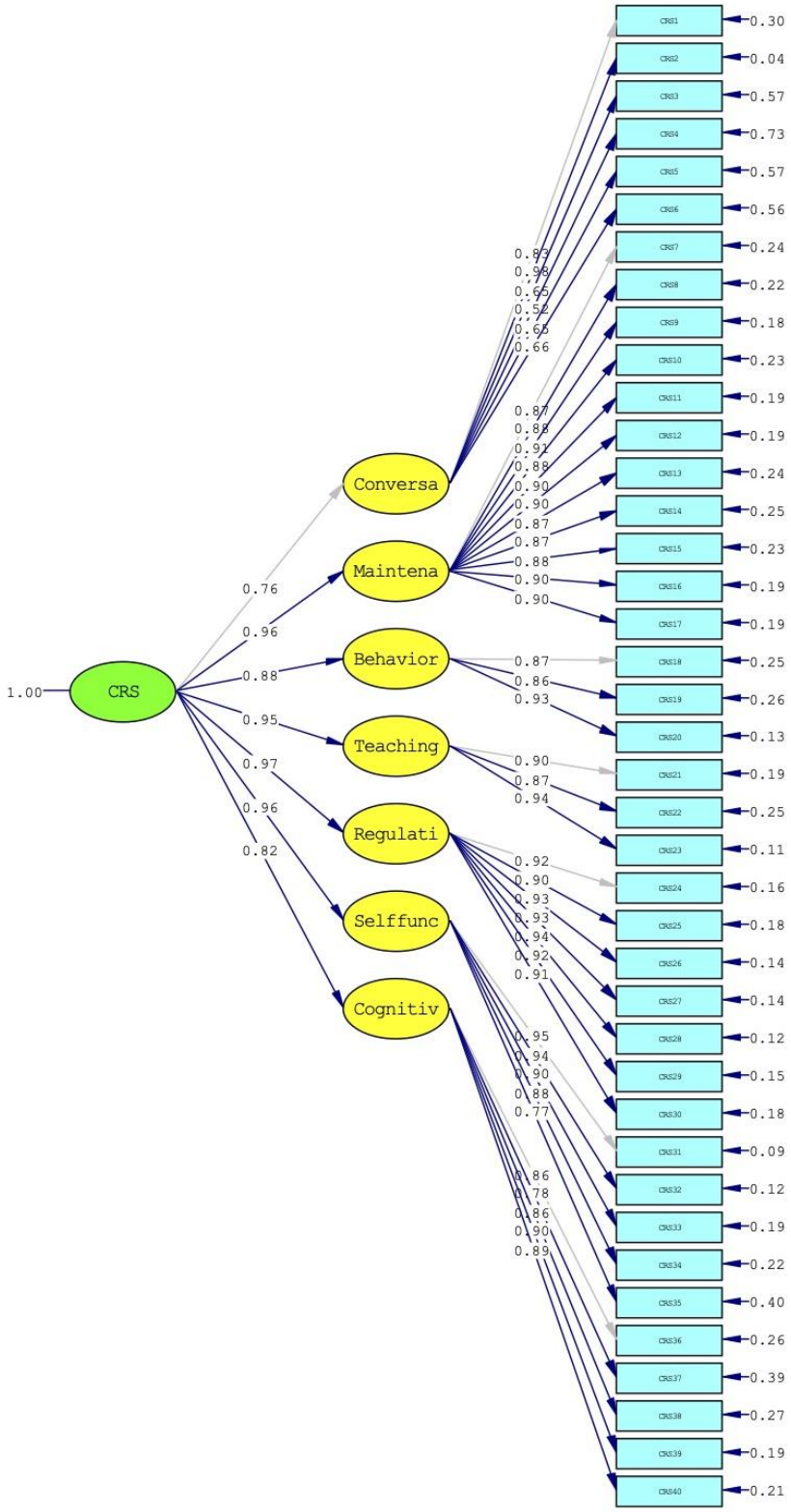

Figure 1: Standardized solutions for the 7-factor model of the CRS.

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Figure 1 reveals the regression coefficients of the sub-scales (Conversations, Relationship Maintenance, Behavioral Control, Teaching/Problem-Solving, Emotion Regulation, Self-Functions, and Cognitive Skills) are significant and greater than .30 and error covariances are less than .90. Therefore, the model has a statistically fitted structure. Also, the latent variable, the CRS, is accepted as significant by its sub-scales.

Reliability of the CRS

While testing the reliability of rating scales, the alpha coefficient (Cronbach's Alpha) is calculated (Sönmez & Alacapınar, 2016). The reliability means that the qualities desired to be measured give similar results on the same individuals in different measurements (Büyüköztürk et al., 2020). In this context, we used the data set obtained from 507 participants and calculated Cronbach's Alpha coefficient to see to what extent the scale is reliable. Cronbach's Alpha coefficients of the total scale and the sub-scales are The CRS .99, Conversations .88, Relationship Maintenance .98, Behavior Control .92, Teaching/Problem-Solving .93, Emotion regulation .98, Self-Functions .95, and Cognitive Skills .93.

While a reliable scale has a Cronbach's Alpha coefficient above .70 (Worthington & Whittaker, 2006), its being between .80 and .99 means that it is highly reliable (Gliem & Gliem, 2003). Considering the values of the sub-scales, we can confidently say that the CRS is a reliable measuring tool.

Findings Regarding the Correlation Analyses of the CRS

Table 2 presents the correlations between the sub-scales of the CRS. The results suggested that there are medium and high correlations between all sub-scales of the CRS ($p<0.01$).

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Table 2: Results of the Pearson Corelation test for the sub-scales of the CRS

CRS (r)	1	2	3	4	5	6	7
1.Conversation	-						
2.Relationship Maintenance	.649 ***	-					
3.Behavioural Control	.615 ***	.864 ***	-				
4.Teaching /Problem Solving	.570 ***	.767 ***	.792 ***	-			
5.Emotion Regulation	.644 ***	.900 ***	.852 ***	.845 ***	-		
6.Self-functions	.629 ***	.900 ***	.820 ***	.784 ***	.932 ***	-	
7.Cognitive Skills	.627 ***	.823 ***	.775 ***	.753 ***	.841 ***	.857 ***	-

Note. * p < .05, ** p < .01, *** p < .001 r= .00-0.30 low, .30-.70 medium, .70-1.00 high

Findings Regarding the Descriptive Analyses of the CRS

Parental Age

According to the results of the Kruskal-Wallis test for examining the differences of the scores on the sub-scales of the CRS by parental age suggested that the participants' scores on the Behavioral Control sub-scale differed statistically by their ages ($X^2_{DK}(sd = 2, n = 507) = 9.88$, p_{BC}=0.01; p<.05). The result of the post hoc test revealed that the statistical difference was between the participants aged 29 and under and aged 30-39 years, in favor of the preceding group. However, we found that the scores on the other sub-scales did not show a statistically significant difference by age (Conversation, p=0.29; Relationship maintenance, p=0.17; Teaching/Problem-solving, p=0.15; Emotion regulation, p=0.47; Self functions, p=0.74; Cognitive skills, p=0.51; p>.05). In other words, the groups had similar scores on the sub-scales Conversations, Relationship Maintenance, Teaching/Problem-Solving, Emotion Regulation, Self-Functions, and Cognitive Skills

Parental Gender

Table 3 presents the results of the Mann-Whitney U test for exploring the differences in the scores on the sub-scales of the CRS by parental gender.

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Table 3: Results of the Mann-Whitney U test for the sub-scales of the CRS by parental gender

	Group	N	Mean Rank	Sum of Ranks	U	p
Conversations	Female	473	255.89	121035.50	7147.50	0.28
	Male	34	227.72	7742.50		
Relationship maintenance	Female	473	257.51	121802.00	6381.00	0.04*
	Male	34	205.18	6976.00		
Behavioral control	Female	473	255.38	120795.50	7387.50	0.43
	Male	34	234.78	7982.50		
Teaching/Problem-solving	Female	473	258.50	122271.00	5912.00	0.01*
	Male	34	191.38	6507.00		
Emotion regulation	Female	473	258.55	122292.00	5891.00	0.01*
	Male	34	190.76	6486.00		
Self-functions	Female	473	258.95	122481.00	5702.00	0.00*
	Male	34	185.21	6297.00		
Cognitive skills	Female	473	255.33	120772.50	7410.50	0.44
	Male	34	235.46	8005.50		

The results indicated that the scores on the sub-scales Relationship Maintenance, Teaching/Problem-Solving, Emotion Regulation, and Self Functions showed statistically significant differences by parental gender, in favor of females (z_{RM}=-2,02, p_{RM}=0,04; z_{TPS}=-2,59, p_{TPS}=0,01; z_{ER}=-2,62, p_{ER}=0,01; z_{SF}=-2,84, p_{SF}=0,00; p<.05). That is, female participants' scores on the Relationship Maintenance, Teaching/Problem-Solving, Emotion Regulation, and Self Function were higher than that of male participants. Nonetheless, as seen in Table 3, results showed that the participants' scores on the remaining sub-scales did not significantly differ by gender (p>.05). Put another way, the scores of the participants on the remaining sub-scales showed a relative similarity.

Educational Attainment

The results of the Kruskal-Wallis test for examining whether the scores on the sub-scales of the CRS differed significantly by the participants' educational attainments suggested that the participants' scores on the Behavioral Control sub-scale differed statistically by their educational attainments ($X^2_{DK}(sd = 2, n = 507) = 9.38$, p_{BC}=0.01; p<.05). The result of the post hoc test revealed that the statistical difference was between the participants with high school and less education and those with undergraduate and postgraduate education, in favor of the preceding group. However, we found that the scores on the other sub-scales did not show a statistically significant difference by educational attainment (Conversation, p=0.14; Relationship maintenance, p=0.67; Teaching/Problem-solving, p=0.40; Emotion regulation, p=0.85; Self functions, p=0.17; Cognitive skills, p=0.67; p>.05). Regardless of their educational background, the participants had similar scores on the sub-scales Conversations, Relationship

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Maintenance, Teaching/Problem-Solving, Emotion Regulation, Self-Functions, and Cognitive Skills.

According to the results of the Kruskal-Wallis test for exploring the differences of the scores on the sub-scales of the CRS by child's age is shown that the scores of the participants on the sub-scales did not significantly differ by child's age (Conversation, p=0.43; Relationship Maintenance, p=0.58; Behavioral Control, p=0.52; Teaching/Problem Solving, p=0.49; Sel-Function, p=0.56; Cognitive Skills, p=0.15; p>.05). They hit similar scores on the scale regardless of their children's age at the time of filling out the questionnaire.

Discussion and Conclusion

Considering the results obtained regarding the face, content, and construct validities of the CRS, it was found to be a convenient scale to measure the reminiscence functions of Turkish parents with children aged 2-6. Overall, we confirmed the seven-factor structure of the original scale. Cronbach's Alpha coefficients in the original scale varied between .85 and .90 (Kulkofsky, & Koh, 2009). Nevertheless, we found that reliability coefficients ranged between .88 and .99 among the sub-scales in its Turkish version, and, thus, the scale is a highly reliable measuring tool to be used in the Turkish context.

Among the parents, 19.9% were 29 years and under, 71.6% were 30-39 years, and 8.5% were 40 years and over. The ages of the parents participating in the study were grouped according to Eric Erikson's Psychosocial Development Theory, and the results of the analyzes were interpreted accordingly. The results revealed that those aged 29 years and under significantly differed from those aged 30-39 years on the Behavioral Control sub-scale, which means that younger parents are reminiscing more to control their children's behaviors. Parental experiences are also important in dealing with children's behavioral problems. Parents aged 29 years and under and those aged 30 years and over can differ from each other in terms of child-raising experiences. It should also be noted that joint reminiscence can also occur without any conscious action. Therefore, parents may be performing the functions unconsciously through reminiscing. However, we used a self-report measure in this study so that the concluded functions were likely the results of their conscious joint reminiscence.

The number of mothers (473) was quite higher than that of fathers (34), which should be considered in the results. We found that the mothers reminisced more than fathers regarding the sub-scales of Relationship Maintenance, Teaching/Problem-Solving, and Self Functions. In the Turkish context, mothers are considered more responsible for the care of their children. Similarly, mothers constituted the majority of the sample group in the study conducted with the

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caregivers of 203 children (N=192; 94.6%) (Kulkofsky, & Koh, 2009). Hence, we can assert that the function of joint reminiscence can be associated with maintaining the relationship between mother and child, teaching/problem-solving skills, and self-functions. At the same time, substantial literature covers memory studies conducted only with mothers; the ones with fathers are rather limited (Fivush, 2011). Some previous studies showed that mothers and fathers might have different reminiscence functions (Buckner & Fivush, 2000; Fivush et al., 2000).

While social structure theorists typically refer to memories between parents and their children, most of the research to date has only examined memories between mothers and their children. In their study to determine the reminiscence styles of 24 two-parent families, Reese, Haden, and Fivush (1993) found that mothers and fathers exhibited two different styles. They did not find any association between elaborative or repetitive styles and parental gender. Therefore, in the context of reminiscence, findings regarding mother-child reminiscence are also generalized to fathers (Reese et al., 1993).

On the other hand, the participants only differed on the Behavioral Control sub-scale by their educational attainments. Parents with high school or less education reminisced to gain behavioral control of their children more than those with undergraduate and postgraduate education. Similarly, Kulkofsky (2010) determined that the educational attainments of the parents negatively correlated with behavioral control. In other words, as the education level increases, the frequency of joint reminiscence to achieve behavioral control decreases (Kulkofsky, 2010). The study of Kuntay and Ahtam (2004), in which they investigated the relationship between the past talks of Turkish mothers with their children and the educational attainment of the mothers, revealed that highly educated mothers used more words, had an elaborative style, and provided more clues for their children while reminiscing. They also found that mothers with higher education levels tended to repeat less frequently (Kuntay & Ahtam, 2004).

Finally, the scores of the participants did not differ on the sub-scales of the CRS by their children's ages. Since the age distribution of the preschool-age children of the participants was not in a wide range, we thought that parents' reminiscence purposes did not differ by their children's ages. Kulkofsky (2010) also did not reach a significant difference on the sub-scales of the CRS in her study conducted with parents with children aged 3-8 years by adding 26 items to the CRS. However, he found the difference on the additional sub-scales, Memory Skills, and Peer Relations (Kulkofsky, 2010). These sub-scales were not included in the current study; despite this, children's ages remained neutral by the items in the original scale in both studies.

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Children's gender was not included in the study because according to a meta-analysis study, the gender of the children is not affected by the elaboration reminiscing styles of the parents. In addition, it is emphasized that ethnic origin is important for the reminiscing styles and also the elaboration of parents in the meta-analysis study (Waters et al., 2019). Although it is an interesting subject the reminiscing functions through culture, there are different studies in the literature (e.g., Sahin & Mebert, 2013; Schröder et al., 2013; Alea & Wang, 2015; Klemfuss et al., 2021). In this context, the adaptation of standard measurement tools that will enable determining the reminiscing functions of intercultural parents will contribute to the field.

We aimed to determine the reliability and validity of the CRS to Turkey which serves to cross-cultural studies about the parents reminiscing functions. As a result of the study, we determined the CRS is the convenient scale to measure the reminiscence functions of Turkish parents with children aged 2-6. In addition, we believe that it is an important scale for future reminiscing studies. Moreover, parents who are younger and parents who have lower education levels tend to reminisce about their children as behavioral control. In addition, mothers have more reminiscing functions such as relationship maintenance, teaching/problem-solving, emotion regulation, and self-functions than fathers.

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