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Adaptation of The Children's Role Inventory-20: Turkish Version Validity and Reliability Study

Çocukluk Rolleri Envanteri-20'nin Türkçe'ye Uyarlanması: Geçerlik ve Güvenirlik Çalışması

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ABSTRACT

The present study aims to adapt the "Children's Role Inventory-20" (CRI-20) into Turkish and examine its validity and reliability. The study sample consisted of 303 participants aged ≥18 years, and these participants were selected through convenience sampling. Data were collected using "Personal Information Form," "CRI-20," "Spann–Fischer Codependency Scale," "Michigan Alcoholism Screening Test," and "Family Assessment Device." The study data were analyzed using SPSS-22 and AMOS-22 software. The psychometric properties of the Turkish version of the CRI-20 were similar to that of the original version and consisted of a two-factor structure (lost child vs. mascot and scapegoat vs. hero) with four subscales; the goodness of fit indices of this inventory was also acceptable in the Turkish sample. The Cronbach's alpha coefficients of the CRI-20 subscales varied from .73 to .80, thus indicating an acceptable level. The psychometric properties established in this study suggested that the Turkish version of the CRI-20 is a valid and reliable measurement tool that can be employed to assess the roles adopted by individuals aged 18–50 years within a family system in the Turkish sample.

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ÖZET

Araştırmada "Çocukluk Rolü Envanteri-20'nin" Türkçe'ye uyarlanması, geçerlik ve güvenirlik çalışmasının yapılarak envanterin Türk literatürüne kazandırılması amaçlanmıştır. Araştırmanın örneklemini, uygun örnekleme yöntemi ile seçilen, 18 yaş ve üzeri gönüllü 303 birey oluşturmaktadır. Araştırmada veri toplama aracı olarak 'Kişisel Bilgi Formu', 'Çocukluk Rolü Envanteri-20', 'Spann-Fischer İlişki Bağımlılığı Ölçeği' 'Michigan Alkol Tarama Testi (MATT)' ve 'Aile Değerlendirme Ölçeği (ADÖ)' kullanılmıştır. Elde edilen veriler SPSS-22 ve AMOS-22 bilgisayar programları kullanılarak analiz edilmiştir. "Çocukluk Rolü Envanteri-20' nin" Türkçe formunun, özgün formuyla benzer psikometrik özellikler gösterdiğini ortaya konmuştur. 20 maddelik Lost Child versus Mascot ve Scapegoat versus Hero olmak üzere iki faktörlü ve dört alt boyuttan oluşan yapı Türkiye örnekleminde de kabul edilebilir uyum iyiliği değerleri göstermiştir Çocukluk Rolü Envanteri-20 (ÇRE-20)' nin alt boyutlarının Cronbach alfa katsayılarının .73 ile .80 arasında değiştiği ve kabul edilebilir düzeyde olduğu görülmüştür. Bu çalışmanın sonucunda elde edilen psikometrik özellikler, Çocukluk Rolü Envanteri-20 Türkçe formunun Türkiye örnekleminde; 18 ile 50 yaş aralığındaki bireylerin aile sistemi içerisinde sahip oldukları çocukluk rollerinin ölçümünde kullanılabilecek geçerli ve güvenilir bir ölçme aracı olduğunu göstermektedir.

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Ethical Statement: Scientific Research and Publication Ethics Committee of Fatih Sultan Mehmet Vakıf University was consulted for ethical approval of this study (Date: 29/04/2021, Approval Number:04/03).

INTRODUCTION

A family system is considered as a function of the dynamic interactions between family members and tends to maintain the equilibrium (Kerr & Bowen, 1988; Titelman, 2008). These dynamic interactions may cause family members to develop certain defense mechanisms and adopt various roles in the system to maintain the equilibrium and survive (Wampler et al., 2009).

Previous studies show that the roles adopted by children to find a place for themselves in the family and survive emotionally (Black, 1979; Black, 1982; Woititz, 1983; Woodside, 1983; Russell et al., 1985; Nardi, 1981) may become a part of their adulthood personality (Black, 1979; Black, 1982; Woititz, 1983; Bosma, 1972; Hecht, 1973) and may even influence their work-life (Woititz, 1987; Mathews & Halbrook, 1990) and the choice of their spouses (Black, 1982).

Children learn to express their emotions and manage conflicts by observing differences within the family system (Bell & Bell, 1982). In this regard, age, birth order, gender, and social and ethnic characteristics are believed to affect the roles of individuals in the family system. Furthermore, any negative situation in the family and the resulting disturbance in the interaction of family members have a direct impact on the roles adopted in the system (Wampler et al., 2009; Black, 1979; Black, 1982; Nardi, 1981).

Nardi (1981) indicated that children are socially and culturally affected by the negative characteristics of their parents and stated that one of the factors affecting the roles in the family is parental alcoholism. Therefore, taking on various roles becomes a necessity for children to cope with family problems. Such necessity and the effect of social and psychological factors lead some children to take on a delinquent role, some to escape, some to adopt the perfect child role who never does anything wrong, and some to cope very well, while some children cannot cope at all (Booz-Allen & Hamilton, 1974; Nardi, 1981).

In the Children of Alcoholics (1979) study, Black stated that children take on various roles to cope with alcoholism in the family and help maintain the peace. Such roles however are the children's defenses that prevent them from expressing their real feelings.

Black (1982) and Wegscheider (1981) defined the roles adopted by children in a family with alcoholic parents in four different categories: hero, scapegoat, mascot, and lost child.

According to Black (1982), the eldest female or male child of the family often takes on the hero role by being an achiever and putting the needs of others before their own. Taking on the hero role, the child tries to make up for the family members and has boundaries intertwined with those of the others. Children who take on the scapegoat role act contrary to the family's expectations and values. These children use negative behaviors to attract attention. The children who take on the lost child role in the family are described as neither good nor bad, neither successful nor unsuccessful, unlike the hero or the scapegoat; these children tend to escape from their family problems. The lost child denies interactions with other family members. The children who take on the mascot role in the family, on the contrary, are quite involved in the family's emotions and tend to distract the whole family from the issues using funny attitudes, rather than escaping from the family problems. The mascot is the center of attention in the family (Potter & Williams, 1991).

The roles adopted in childhood through defense mechanisms that help protect the family system equilibrium appear as maladaptive behaviors in adulthood over time (Black, 1982; Scharff et al., 2004). Parker (2015) compared the dreams of 13 women who had at least one parent with chemical dependence

and a current partner with similar dependence with 100 dreams of women who had similar demographic characteristics but no chemically dependent parents or partners. The comparison of dreams and the CRI-20 roles revealed both qualitative and quantitative differences between these two groups of women. Thus, this study reported that there were similarities between the roles acquired by the individuals in the family and those in their adult relationships; however, it was highlighted that such roles, which could appear even in the content of dreams, might not be constant and could be replaced by a more positive position during adulthood. The individuals were observed to have a sense of slight responsibility for the chemical dependence in their family, but they reported no impact of their upbringing on their current adult life (Parker, 2013).

In a sample of 322 individuals, Scharff et al. (2004) compared adults who were children of alcoholics with those of nonalcoholic parents using the hero, mascot, lost child, and scapegoat roles and reported that there was a link between parental alcoholism and the children's roles and that the adult children of alcoholics had more psychological symptoms compared to those of nonalcoholic parents. The lost child role was found to be associated with anxiety disorders, somatoform disorders, passive aggression, self-defeating behaviors, self-abasement, and addictions compared to other roles, although not at the level of a syndrome.

Several studies (Alford, 1998; Deason & Randolph, 1998; Fischer & Wampler, 1994) revealed that the classification of children's roles was also applicable to the families without addiction, i.e., similar rigid role behaviors were also observed in siblings of children with disabilities (Atkins, 1991). Alford (1998) examined the relationship between family roles, parental alcoholism, and/or family dysfunction in 748 university students consisting of 449 females and 294 males. Adult children of alcoholics were compared with those of non-alcoholics, revealing no significant difference in the roles. Conversely, the participants with dysfunctional families had higher scores for the scapegoat and lost child roles and lower scores for the mascot role; it was reported that the roles were associated with family dysfunction rather than alcoholism. In addition, Deason and Randolph (1998) investigated whether there was a relationship between family roles and family functioning in a sample of 114 individuals and found the family roles to be associated with family functioning factors and interpersonal attachment variables.

It is observed that the roles adopted in childhood to maintain the family system equilibrium are associated with several dynamics that affect mental health in the future, and individuals tend to maintain such roles in their adulthood. However, the extant literature remarkably lacks empirical research on the variables that impact children's roles.

Measuring Children's Roles: CRI-20

Based on Black's (1982) and Wegscheider's (1981) theoretical frameworks, Potter and Williams (1991) developed the "CRI-60" to understand which roles could be adopted by the children with alcoholic parents. However, the study conducted by Potter and Williams (1991) to develop the CRI-60 was criticized due to the use of principal component analysis instead of an exploratory factor analysis and the lack of explanation about the distribution of the items to the existing subscales; it was also argued that the high number of items might limit the desire to answer the questions. For these reasons, Wampler et al. (2009) aimed to develop the "CRI-20," a brief version of the CRI-60. The sample of their study comprised 840 university students, i.e., 603 women and 237 men, with an average age of 20 years. Besides CRI-60 (Potter & Williams, 1991), the study participants were administered the Michigan Alcoholism Screening Test (MAST) (Selzer, 1971; Selzer et al., 1975), the Spann–Fischer Codependency Scale (SF

CDS) (Fischer et al., 1991), and the General Functioning (GF) Scale of the Family Assessment Device (FAD) (Epstein et al., 1983) and a matrix of possible addictions for themselves and their families (e.g., alcohol, gambling, and eating disorders) (Fischer et al., 1992).

Within this scope, Wampler et al. (2009) first examined the items of CRI-60 using exploratory factor analysis, revealing that the first two-factor loadings were 13.6 and 10.4 and explained 40.1% of the total variance. The two next strongest factors did not contribute to the understanding of the data, as they explained 5% and 4% of the total variance. Therefore, second exploratory factor analysis was conducted by limiting to two factors: mascot vs. lost child and hero vs. scapegoat. These two factors were negatively correlated (r = −101). In the exploratory factor analysis, five items that best described each category were identified. The 20-item structure with two factors and four scales and five items for each scale were tested by confirmatory factor analysis (CFA). The items selected for CRI-20 were based on higher pathway coefficients in the SEM, leading to a minimal RMSEA, and little or no overlap in meaning with other scale items. It was reported that items with conceptual overlap were eliminated, and the more common word was selected in the case of two words with the same meaning.

The subscales of CRI-20 were identified: hero: dutiful, mature, trustworthy, helpful, and organized; mascot: entertaining, cheerful, outgoing, playful, and excitable; lost child: quiet, lonely, shy, solemn, and passive; scapegoat: defiant, deceitful, hostile, irritating, and disobedient.

To classify an individual as a "hero," the hero score had to be higher than the scores on the other three scales. To classify an individual as "mascot," the mascot score had to be higher than the scapegoat or lost child scores and equal to or higher than the hero score. To classify an individual as a "lost child," the lost child score had to be higher than the scapegoat score and higher than or equal to the mascot or hero score. To classify an individual as a "scapegoat," the scapegoat scale score had to be higher than or equal to the scores on the other three scales.

The standardized regression weights (path coefficients) for each scale were reported: quiet = .78, shy = .75, lonely = .67, solemn = .59, and passive = .56 for lost child; outgoing = .86, entertaining = .69, excitable = .53, cheerful = .55, and playful = .54 for mascot. The correlation coefficient between lost child and mascot was −.82.

The standardized regression weights (path coefficients) for each scale were reported: irritating = .7, defiant = .64, deceitful = .72, hostile = .62, and disobedient = .74 for scapegoat and trustworthy = .73, dutiful = .64, mature = .58, helpful = .67, and organized = .53 for hero. The correlation coefficient between hero and scapegoat was −.74. Furthermore, there was a strong positive correlation (>.90) between each subscale of CRI-20 and the corresponding subscale of CRI-60.

Focusing on the characteristics and attributes that can be acquired in childhood, the inventory consists of two factors, namely, mascot vs. lost child and hero vs. scapegoat; four scales, each of which can be evaluated separately; and a total of 20 items. The study participants were asked to make their evaluations considering their 16-year-old situation. The items are rated on a 5-point Likert scale, with "1 = Strongly disagree or not like me at all, 2 = Disagree or not like me, 3 = Neutral, 4 = Agree or somewhat like me, and 5 = Strongly agree or very much like me."

This adapted the CRI-20 into Turkish and established its validity and reliability. Thereby, this inventory will be added to the Turkish literature and will be a source of research that will determine the factors that affect children's roles and examine the positive and negative effects of family dynamics on mental health.

METHOD

Study Participants

The study sample comprised 303 participants, including 191 (63%) females and 112 (37%) males, aged from 18 to 50 years, and selected by convenience sampling. The mean age was 27.64 years. Of the participants, 22 (7.3%) had associate's degrees, 73 (24.1) were graduates, 200 (66%) were undergraduates, and 8 (2.6%) had high school or lower-level education. While 62 (20.5%) participants were married, 241 (79.5%) were single. Of the participants, 28 (8.6%) were a single child, 128 (42.2%) had two siblings, 86 (28.4%) had three siblings, 31 (10%) had 4 siblings, and 32 (10.5%) had 5 or more siblings. None of the mothers [303 (100%)] of all participants had any alcohol consumption habits, while 19 (6.3%) of the fathers had a habit of consuming alcohol and 284 (93.7%) did not consume alcohol.

Ethical Statement

The study procedures were approved by the Research Ethics Board of Fatih Sultan Mehmet Vakıf University (Date: 29/04/2021, Approval Number:04/03).

Data Collection Tools

The data were collected using a "Personal Information Form," "CRI-20," "Spann–Fischer Codependency Scale," "MAST," and "GF Scale of the FAD." The study data were analyzed using SPSS-22 and AMOS-22 software.

Personal Information Form: This form was developed by the researcher to collect data related to the demographic characteristics of the study participants. It included items such as gender, age, educational status, marital status or romantic relationship status, number of siblings and birth order, as well as items assessing parental use of alcohol and substances.

Spann–Fischer Codependency Scale: The scale was developed by Fischer et al. (1991) to measure individuals' level of codependency. The 16-item scale, in line with the codependency definitions, includes characteristics that are commonly reported in the literature, such as "focusing on the needs of others rather than oneself," "taking responsibility on behalf of others," and "not being able to say no." The items are rated on a 6-point Likert scale, with "1 = Strongly disagree, 2 = Moderately disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Moderately agree, 6 = Strongly agree." The Turkish adaptation, validity, and reliability study of the scale was conducted by Tanhan and Mukba (2014). The reliability studies in three different groups of university students revealed Cronbach's alpha coefficients of .77, .73, and .80. Items 5 and 7 are reverse coded; the highest and lowest possible scores are 16 and 96 points, respectively. Moreover, higher scores indicate a higher degree of codependency.

Michigan Alcoholism Screening Test: MAST was developed by Selzer (1971) to determine individuals' alcohol-related problems and, if any, the degree of such problems. The scale comprised 25 items with different scores. The participants had to answer either with a "Yes" or a "No" to the items. Moreover, for this scale, 0–4 total scores indicate nondependence, 5–9 indicate alcohol abuse, and ≥10 indicate alcohol dependence. The Turkish validity and reliability study of the scale was conducted by Coşkunol et al. (1995).

Family Assessment Device- General Functioning Scale: The scale that measures one's perceived areas of family functioning was developed by the Brown University and Butler Hospital in the U.S.. The Turkish adaptation, validity, and reliability study of the scale was conducted by Bulut (1990). The scale

consists of 60 items and 7 subscales: problem-solving, communication, roles, affective responsiveness, affective involvement, behavior control, and general functioning. Items are rated on a 4-point Likert scale, with "4 = Strongly disagree, 3 = Slightly agree, 2 = Mostly agree, and 1 = Strongly agree." The final score is deduced by adding the points of each subscale and dividing by the number of items in each scale. Theoretically, 2 is a discriminative number, and mean scores >2 are considered as indicative of a progress into unhealthy family functioning.

Adaptation of the Inventory

For the adaptation of CRI-20, the original inventory was translated into Turkish by three experts who have a command on both languages, English and Turkish, and psychology. The Turkish form was developed by the researcher after evaluating the translations, and the Turkish form was back-translated into English by three different experts. For linguistic equivalence, the inventory was administered to a sample of 20 individuals, and the necessary revisions were made; thereafter, the inventory was finalized. The inventory was administered to participants through Google forms. An informed consent form was included at the beginning of the form. In the informed consent form, the participants were asked to write their email addresses in case they wanted to participate in the test–retest application, which was the second stage of the research. Further, 2 weeks after the first application, the retest inventory was applied to the participants who volunteered.

RESULTS

Validity

Construct Validity: The construct validity of CRI-20 was tested by CFA. The initial results from the CFA revealed that the first factor's (lost child vs. mascot) goodness of fit indices [$\chi 2/df = 6.02$; GFI = .88; AGFI = .81; CFI = .84; IFI = .84; TLI = .79; RMSEA = .13] were below the critical value (.90) and RMSEA was above .08. Furthermore, after examining the modification values, Items 1–5 and 5–17 of the lost child subscale and Items 8–16, 12–16, and 16–20 of the mascot subscales that had high error covariances were linked to each other to revise the model. Thus, CFA was repeated upon modifications between these items. The results of the repeated CFA are shown in Figure 1.

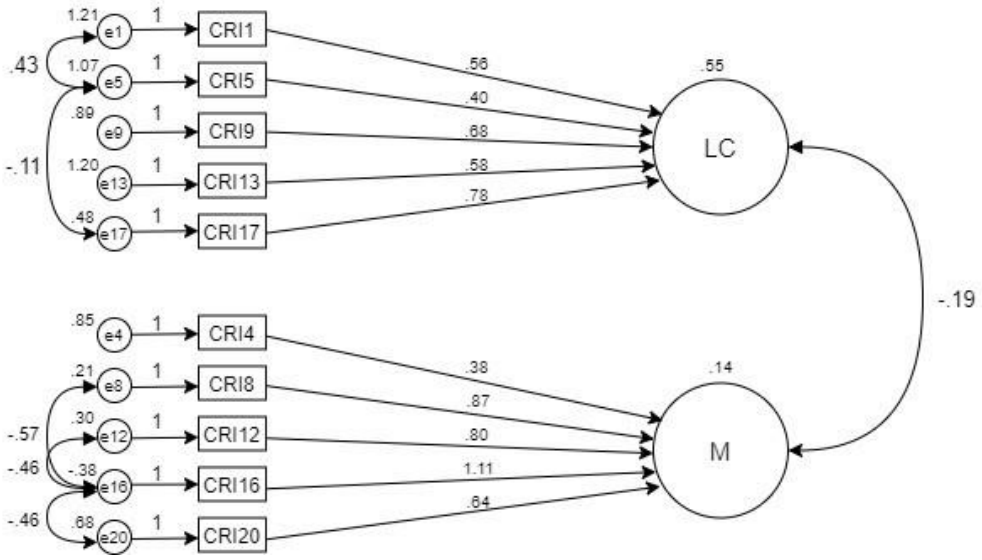

Figure 1. Standardized factor loadings of Lost Child versus Mascot

Figure 1 shows that the standardized factor loadings varied from .40 to .78 for the lost child subscale and from .38 to 1.11 for the mascot subscale, thereby suggesting that all factor loadings were significant.

For the initial results from the CFA, the second factor's (scapegoat vs. hero) goodness of fit indices [$\chi 2$ (31, N = 303) = 67.609, $\chi 2/df$ = 3.97; GFI = .91; AGFI = .86; CFI = .87; IFI = .88; TLI = .83; RMSEA = .099] were below the critical value (.90) and RMSEA was above .08. Furthermore, after examining the modification values, Items 2–10 and 10–14 of the scapegoat subscale and Items 7–11 of the hero subscale that had high error covariances were associated with each other to revise the model. Thus, CFA was repeated upon modifications between these items. The results of the repeated CFA are shown in Figure 2.

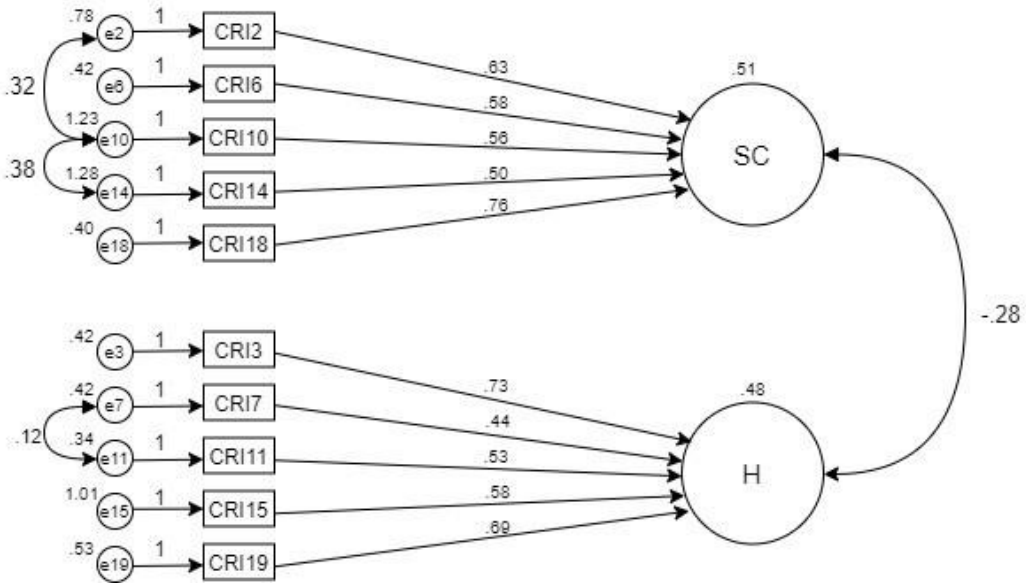

Figure 2. Standardized factor loadings of Scapegoat versus Hero

Figure 2 shows that the standardized factor loadings varied from .50 to .76 for the scapegoat subscale and from .44 to .73 for the hero subscale, thus indicating that all factor loadings were significant.

The goodness of fit indices of the inventory's first factor (lost child vs. mascot) were $\chi 2$ (29, N = 303) = 58.641, $\chi 2/df$ = 2.02; GFI = .96; AGFI = .93; CFI = .97; IFI = .97; TLI = .96; and RMSEA = .06.

The goodness of fit indices of the inventory's second factor (scapegoat vs. hero) were $\chi 2$ (31, N = 303) = 67.609, $\chi 2/df$ = 2.18; GFI = .96; AGFI = .92; CFI = .95; IFI = .96; TLI = .93; RMSEA = .06]. The findings regarding whether the CFA results of CRI-20 were within the acceptable limits are presented in Table 1.

Table 1. Confirmatory factor analysis results of the Children's Role Inventory-20

	Fit index	Calculated Value	Acceptable Values	Result
Lost Child vs. Mascot	χ^2/sd	2.02	χ^2/df ≤5.00	Acceptable
	GFI	.96	GFI ≥.90	Acceptable
	AGFI	.93	AGFI ≥.90	Acceptable
	CFI	.97	CFI ≥.90	Acceptable
	IFI	.97	IFI ≥.90	Acceptable
	TLI	.96	TLI ≥.90	Acceptable
	RMSEA	.06	RMSEA ≤.08	Acceptable

	χ^2/sd	2.18	χ^2/df ≤ 5.00	Acceptable
	GFI	.96	GFI ≥.90	Acceptable
Scapegoat vs.	AGFI	.92	AGFI ≥.90	Acceptable
Hero	CFI	.95	CFI ≥.90	Acceptable
	IFI	.96	IFI ≥.90	Acceptable
	TLI	.93	TLI ≥.90	Acceptable
	RMSEA	.06	RMSEA ≤.08	Acceptable

Convergent Validity: The convergent validity of CRI-20 was tested by analyzing its relationships with SFCS, MAST and GF Scale of the FAD. Within this scope, the relationships of the lost child, mascot, scapegoat, and hero subscales of CRI-20 with the total SFCS score, the total MAST score, and the GF Scale of the FAD score were included in the analysis. The results of the convergent validity are presented in Table 2.

Table 2. Convergent validity results of the Children's Role Inventory-20

Variable	SFCS	MAST	GF Scale of the FAD
Lost Child	.296 **	−.002	.271 **
Mascot	−.127 *	−.002	−.354 **
Scapegoat	.093	.248 **	.213 **
Hero	−.036	−.144 *	−.200 **

** p < .01, * p < .05

Table 2 shows that the SFCS was significantly positively correlated with the lost child subscale (r = .296, p < .01) and significantly negatively correlated with the mascot subscale (r = −.127, p < .05) of the CRI-20, while there was no significant correlation between the SFCS and the scapegoat (r = .093, p > .05) and hero (r = −.036, p > .05) subscales.

MAST was significantly positively correlated with the scapegoat subscale (r = .248, p < .01) and significantly negatively and weakly correlated with the hero subscale (r = −.144, p < .001) of the CRI-20, while there was no significant correlation between the MAST and the lost child (r = .002, p > .05) and mascot (r = −.002, p > .05) subscales.

The GF Scale of the FAD was significantly positively correlated with the lost child (r = .271, p < .01) and scapegoat (r = .213, p < .01) subscales of the CRI-20, while significantly negatively correlated with the mascot (r = −.354, p < .01) and hero (r = −.200, p <.01) subscales. Considering all these findings, it is possible to state that the convergent validity of the CRI-20 was attained.

Reliability

The reliability of CRI-20 was established by calculating the test–retest reliability coefficients using the Cronbach's alpha and conducting an item analysis. The results of the Cronbach's alpha and test–retest reliability coefficients are presented in Table 3. Additionally, the corrected item total correlations of the CRI-20 items are also included in Table 3.

Table 3. Reliability results of the Children's Role Inventory-20

Subscale	Item No	rjx	M	ss	α	test–retest
Lost Child	1	.58	3.12	1.33	.75	.83
	5	.41	3.83	1.13		
	9	.61	3.14	1.28		
	13	.41	2.50	1.34		
	17	.57	2.03	1.11		
Mascot	4	.47	3.77	1.00	.80	.79
	8	.71	4.05	.93		
	12	.69	4.04	.92		
	16	.55	3.50	1.27		
	20	.54	3.80	1.07		
Scapegoat	2	.61	2.12	1.14	.77	.84
	6	.41	1.39	.79		
	10	.64	2.75	1.35		
	14	.51	2.75	1.30		
	18	.57	1.87	.97		
Hero	3	.62	4.12	.95	.73	.77
	7	.44	4.43	.72		
	11	.50	4.55	.69		
	15	.48	3.56	1.23		
	19	.51	4.00	1.01		

Table 3 shows that the lost child (α = .75), mascot (α = .80), scapegoat (α = .77) and hero (α = .77) subscales of the CRI-20 had Cronbach's alpha coefficients within the acceptable range. Similarly, the lost child (.83), mascot (.79), scapegoat (.84) and hero (.77) subscales had satisfactory test–retest reliability coefficients.

Additionally, an item analysis was conducted to determine the items' power for representing the inventory. The item analysis revealed item-total correlation coefficients varying from .41 to .71. Given that the items with a value of ≥.30 are considered satisfactory in representing (Büyüköztürk, 2004; Kline, 2013) the entity to be measured, it can be deduced that the item-total correlation values of the inventory are within the acceptable limits.

DISCUSSION, CONCLUSION & SUGGESTIONS

This study aimed at adapting the CRI-20, which classifies family roles during childhood, into Turkish and establishing its validity and reliability. In line with this purpose, the validity of the inventory was established by Cronbach's alpha internal consistency coefficients and item analyses. The study findings revealed that the Turkish version of the CRI-20 showed psychometric properties similar to those of the original inventory. The 20-item inventory with a two-factor (lost child vs. mascot and scapegoat vs. hero) structure and four subscales yielded goodness of fit indices acceptable in the Turkish sample (Bollen, 1989; Hooper et al. 2008; Hu & Bentler, 1999; Joreskog & Sorbom, 1993). After the inventory was developed by Wampler et al. in 2009, there has been no adaptation study into a different language and culture. In the present study, the standardized factor loadings of the inventory varied from .50 to .76 for the scapegoat subscale, from .44 to .73 for the hero subscale, from .39 to .78 for the lost child subscale, and from .38 to 1.11 for the mascot subscale. In the original inventory, the standardized factor loadings varied from .7 to .74 for the scapegoat subscale, from .53 to .73 for the hero subscale, from .56 to .78 for the lost child subscale, and from .54 to .86 for the mascot subscale.

Thus, it can be stated that the items' factor loadings of the inventory's Turkish version are similar to those of the original version.

The analysis of the inventory's convergent validity revealed that the SFCS was significantly positively correlated with the lost child subscale and significantly negatively correlated with the mascot subscale of the CRI-20, while no significant correlation was established between the scapegoat and hero subscales and the SFCS. In the adaptation study of the inventory, Wampler et al. (2009) found that participants with the hero and mascot roles were less codependent compared to those with the lost child role and that there was no significant relationship between the scores of the participants with the scapegoat role and codependency. Similar to the original study, the present adaptation study of the inventory revealed that those with the lost child role were more codependent, while those with the mascot role were less codependent. Similar to the original study, the present study also did not establish any significant relationship between the scapegoat subscale and codependency.

The GF Scale of the FAD was significantly positively correlated with the lost child and scapegoat subscales of CRI-20, while significantly negatively correlated with the mascot and hero subscales. The original inventory study by Wampler et al. (2009) found that participants with the hero and mascot roles scored lower on the GF Scale of the FAD, which measures family dysfunctionality, than those with the scapegoat and lost child roles. The findings of both the studies, indicating that the participants with the hero and mascot roles had lower scores on the family dysfunctionality tool than those with the scapegoat and lost child roles, suggest that the participants with the hero and mascot roles describe their families as more functional. The convergent validity findings of the present study support that individuals with the lost child and scapegoat roles describe their families as more dysfunctional.

The MAST was significantly positively correlated with the scapegoat subscale and significantly positively and weakly correlated with the hero subscale of the CRI-20, while there was no significant correlation between the lost child and mascot subscales and the MAST. Again, the original study, in line with our findings, reported that the percentages of likely alcoholic category (the scores on the MAST) were the lowest in individuals with the hero role and the highest in those with the scapegoat role. No empirical study using the inventory has been identified since it was developed in 2009. However, the results of the convergent validity show similarities with the study findings wherein the inventory was developed.

The reliability analysis of the CRI-20 revealed that the reliability coefficients varied from .73 to .80. Furthermore, the item-total correlation coefficients and test–retest results also indicate the reliability of the inventory. Despite the lack of Cronbach's alpha coefficients for the original 20-item inventory, two different reliability studies of the 60-item version reported the coefficients to vary from .89 to .95 and from .90 to .95. Contrastingly, the study by Kier and Buras (1999) with the CRI-60 (Potter & Williams, 1991) found the following Cronbach's alpha coefficients: hero = .87, lost child = .91, scapegoat = .88, and mascot = .88. Cronbach's alpha coefficients reported by Alford (1998) in a study with 132 university students were hero = .89, lost child = .89, scapegoat = .90, and mascot = .87, and the coefficients from the retest after 1 week were hero = .89, lost child = .89, scapegoat = .88, and mascot = .88. Another study found that the Cronbach's alpha coefficient varied from .87 to .89 for the CRI-20 subscales (Deason & Randolph, 1998).

The psychometric properties demonstrated by the present study indicate that the 20-item Turkish version of the CRI-20 is a valid and reliable assessment tool to measure the children's roles of individuals in the

family system in the Turkish sample belonging to the age group of 18–50 years. Further, the male participants accounted for 37% of the study sample, which can be considered as one of the study limitations. Accordingly, it would be useful to reassess the psychometric properties of the inventory in the Turkish sample by including more men. In addition, the majority of the mothers (100%) and fathers (6.3%) of the study participants did not consume alcohol, and therefore, it could not be evaluated whether there were differences in the children's roles between the groups with alcohol-dependent and non-alcohol dependent parents. Thus, the findings could not be compared with those of the original study regarding these variables. In future studies, it will be useful to compare the childhood roles of the groups with and without parents using alcohol and substances. Future studies may investigate the effects of several individual and relational variables such as gender, age, educational level, socioeconomic level, presence of a disabled family member, and parental attitudes on children's roles, thus contributing to the extant literature.

Although children's role is a topic mentioned by many different schools of psychotherapy, no assessment tool exists to measure this aspect, particularly in Turkey. It is believed that this inventory that was adapted to the Turkish sample would contribute to the determination of factors that culturally affect children's roles. Moreover, the children's roles perceived by individuals can be determined by this inventory during the evaluation stage of psychotherapy. It can further be utilized as a resource in the later stages of therapy to determine whether children's roles are sustained and operational in their ongoing relationships at present. It is believed that working on children's roles during psychotherapy can provide a different insight with respect to the interventions related to a client's life and problems. It is thus hoped that this study would pioneer the research on examination of the relationship between children's roles and dependence on alcohol particularly in Turkey. It is also believed that focusing on children's roles can guide all psychotherapists and clinicians, especially family and couples therapists.

REFERENCES

Alford, K. M. (1998). Family roles, alcoholism, and family dysfunction. *Journal of Mental Health Counseling*, *20*(3), 250. https://www.proquest.com/openview/c4fbf6467addf194cbde411b577b7227/1?pq-origsite=gscholar&cbl=47399

Atkins, S. P. (1991). Siblings of learning disabled children: Are they special, too? *Child and Adolescent Social Work Journal, 8,* 525-533. https://doi.org/10.1007/bf00755239

Bell, L. G., & Bell, D. C. (1982). Family climate and the role of the female adolescent: Determinants of adolescent functioning. *Family Relations*, 519-527. https://doi.org10.2307/583927

Black, C. (1979). Children of alcoholics. *Alcohol Research and Health*, *4*(1), 23. https://link.springer.com/chapter/10.1007/978-94-009-6607-9_35

Black, C. A. (1982). *It will never happen to me.* MAC.

Bollen, K.A. (1989). Overall fit in covariance structure models: Two types of sample size effects. *Psychological Bulletin, 107*(2), 256-59. https://psycnet.apa.org/doi/10.1037/0033-2909.107.2.256

Booz-Allen & Hamilton. (1974). An assessment of the needs of and resources for children of alcoholic parents (Report No. PB-241-119). Springfield, VA: National Technical Information Service

Bosma, W. G. (1972). Children of alcoholics--a hidden tragedy. *Maryland State Medical Journal*, *21*(1), 34. https://pubmed.ncbi.nlm.nih.gov/5008766/

Bulut, I. (1990) *Aile değerlendirme ölçeği el kitabı.* Özgül Zeliş Matbaası.

Büyüköztürk, Ş. (2004). *Veri analizi el kitabı.* Pegem.

Coskunol, H., Bagdiken, I., Sorias, S., & Saygili, R. (1995). Michigan alkolizm tarama testinin geçerliliği. *Ege Tıp Dergisi*, *34*, 15-18.

Deason, D. M., & Randolph, D. L. (1998). A systematic look at the self: The relationship between family organization, interpersonal attachment, and identity. *Journal of Social Behavior and Personality*, *13*(3), 465. https://aquila.usm.edu/fac_pubs/5160

Fischer, J. L., & Spann, L. (1991). Measuring codependency. *Alcoholism Treatment Quarterly, 8*(1), 87–100. doi:10.1300/j020v08n01_06

Fischer, J. L., & Wampler, R. S. (1994). Abusive drinking in young adults: Personality type and family role as moderators of family-of-origin influences. *Journal of Marriage and the Family, 56*(2), 469. doi:10.2307/353113

Gibbs, L. E. (1983). Validity and reliability of the Michigan Alcoholism Screening Test: A review. *Drug and Alcohol Dependence*, *12*(3), 279-285. https://doi.org/10.1016/0376-8716(83)90071-6

Hecht, M. (1973). Children of alcoholics. *AJN The American Journal of Nursing*, *73*(10), 1764-1767. https://journals.lww.com/ajnonline/Abstract/1973/10000/Children_of_Alcoholics.31.aspx

Hooper, D., Coughlan, J. & Mullen, M. R. (2008). Structural equation modelling: Guidelines for determining model fit. *Electronic Journal of Business Research Methods*, *6*(1), 53-60. https://www.researchgate.net/publication/254742561_Structural_Equation_Modeling_Guidelines_for_Determining_Model_Fit

Hu, L. T. & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1-55. https://doi.org/10.1080/10705519909540118

Joreskog, K. G. and Sorbom, D. (1993). *LISREL 8: Structural equation modeling with the SIMPLIS command language.* Scientific Software International.

Kerr, M. E. & Bowen, M. (1988). *Family evaluation.* Norton.

Kier, F. J., & Buras, A. R. (1999). Perceived affiliation with family member roles: Validity and reliability of scores on the Children's Role Inventory. *Educational and Psychological Measurement*, *59*(4), 640-650. https://doi.org/10.1177/00131649921970071

Kline, P. (2013). *Handbook of psychological testing.* Routledge.

Mathews, B., & Halbrook, M. (1990). Adult children of alcoholics: Implications for career development. *Journal of Career Development, 16(4), 261–268.* https://doi.org/10.1177/089484539001600403

Nardi, P. M. (1981). Children of alcoholics: a role-theoretical perspective. *The Journal of Social Psychology, 115(2), 237–245.* https://doi.org/10.1080/00224545.1981.9711663

Parker, J. (2013). *The Dream Content of Young Women Exposed to Addiction. 13th International Association for the Study of Dreams (IASD).* Psiber Dreaming Conference (September 22–October 6, 2013). Retrieved from IASD website.

Parker, J. D. (2015). A quantitative and qualitative exploration of the dream content of women exposed to addictions. *The International Journal of Dream Research*, *8*(2), 77-98. https://doi.org/10.11588/ijodr.2015.2.18642

Potter, A. E., & Williams, D. E. (1991). Development of a measure examining children's roles in alcoholic families. *Journal of Studies on Alcohol*, *52*(1), 70-77. https://doi.org/10.15288/jsa.1991.52.70

Richard S. Wampler, Adam B. Downs & Judith L. Fischer (2009) Development of a Brief Version of the Children's Roles Inventory (CRI-20), *The American Journal of Family Therapy, 37:4,* 287-298. https://doi.org/10.1080/01926180902754687

Russell, M., Henderson, C., & Blume, S. B. (1985). *Children of alcoholics: A review of the literature*. New York: Children of Alcoholics Foundation.

Scharff, J. L., Broida, J. P., Conway, K., & Yue, A. (2004). The interaction of parental alcoholism, adaptation role, and familial dysfunction. *Addictive Behaviors, 29*(3), 575–581. https://doi.org/10.1016/j.addbeh.2003.08.028

Selzer, M.L. (1971). The Michigan Alcoholism Screening Test: The quest for a new diagnostic instrument. *American Journal of Psychiatry, 127*, 1653–1658. https://doi.org/10.1176/ajp.127.12.1653

Selzer, M.L., Vinokur, A., & van Rooijen, L. (1975). A self administered Short Michigan Alcoholism Screening Test (SMAST). *Journal of Studies on Alcohol, 36,* 117–126. https://doi.org/10.15288/jsa.1975.36.117

Tanhan, F., & Mukba, G. (2014). Spann-Fischer ilişki bağımlılığı ölçeği'nin Türkçe'ye uyarlama çalışmasına ilişkin psikometrik bir analiz. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi*, *36*(36), 179-190. https://dergipark.org.tr/en/pub/pauefd/issue/32869/374891

Titelman, P. (2008). The concept of the triangle in Bowen theory: An overview. In P. Titelman (Ed.), *Triangles: Bowen family systems theory perspectives* (pp. 3–62). New York, NY: Routledge.

Wampler, R. S., Downs, A. B., & Fischer, J. L. (2009). Development of a Brief Version of the Children's Roles Inventory (CRI-20). *The American Journal of Family Therapy, 37*(4), 287–298. https://doi.org/10.1080/01926180902754687

Wegscheider-Cruse, S. (1981). *Another chance: Hope & health for the alcoholic family.* Palo Alto, Calif: Science and Behavior Books.

Woititz, J. (1983). *Adult children of alcoholics.* Hollywood, FL: Health Communications.

Woititz, J. (1987). *Home Away from Home.* Pompano Beach, FL, Health Communications, Inc.

Woodside, M. (1983). Children of alcoholic parents: Inherited and psycho-social influences. *Journal of Psychiatric Treatment & Evaluation, 5*(6), 531–537. https://psycnet.apa.org/record/1985-06958-001

Appendix

ROLE INVENTORY								
Directions: The following words or phrases describe various behaviors or characteristics of children. Circle the letter that best fits how each word or phrase describes how you were or how you acted in the family in which you were raised. Describe yourself at age 16.								
Category/ Concept		**CRI-20 Items**	**CRI-20 TR Items**	**A strongly disagree or very unlike me**	**B disagree or unlike me**	**C undecided**	**D agree or like me**	**E strongly agree or very like me**
Lost Child	**1**	**Quiet**	**Sessiz sakin**	**A**	**B**	**C**	**D**	**E**
Scapegoat	**2**	**Hostile**	**Kavgacı**	**A**	**B**	**C**	**D**	**E**
Hero	**3**	**Dutiful**	**Sorumluluk Sahibi**	**A**	**B**	**C**	**D**	**E**
Mascot	**4**	**Excitable**	**Heyecanlı**	**A**	**B**	**C**	**D**	**E**
Lost Child	**5**	**Solemn**	**Ağırbaşlı**	**A**	**B**	**C**	**D**	**E**
Scapegoat	**6**	**Deceitful**	**Düzenbaz**	**A**	**B**	**C**	**D**	**E**
Hero	**7**	**Helpful**	**Yardımsever**	**A**	**B**	**C**	**D**	**E**
Mascot	**8**	**Entertaining**	**Eğlenceli**	**A**	**B**	**C**	**D**	**E**
Lost Child	**9**	**Shy**	**Utangaç**	**A**	**B**	**C**	**D**	**E**
Scapegoat	**10**	**Disobedient**	**Asi**	**A**	**B**	**C**	**D**	**E**
Hero	**11**	**Trustworthy**	**Güvenilir**	**A**	**B**	**C**	**D**	**E**
Mascot	**12**	**Cheerful**	**Neşeli**	**A**	**B**	**C**	**D**	**E**
Lost Child	**13**	**Lonely**	**Yalnız**	**A**	**B**	**C**	**D**	**E**
Scapegoat	**14**	**Defiant**	**Muhalif**	**A**	**B**	**C**	**D**	**E**
Hero	**15**	**Organized**	**Düzenli**	**A**	**B**	**C**	**D**	**E**
Mascot	**16**	**Outgoing**	**Dışa Dönük**	**A**	**B**	**C**	**D**	**E**
Lost Child	**17**	**Passive**	**Pasif**	**A**	**B**	**C**	**D**	**E**
Scapegoat	**18**	**Irritating**	**Sinir Bozucu**	**A**	**B**	**C**	**D**	**E**
Hero	**19**	**Mature**	**Olgun**	**A**	**B**	**C**	**D**	**E**
Mascot	**20**	**Playful**	**Şakacı**	**A**	**B**	**C**	**D**	**E**

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