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Analysis of validity and reliability of the risk assessment form for children

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ABSTRACT

Objectives: This study aimed to evaluate the psychometric parameters of an assessment tool developed by Turkish Ministry of Family and Social Services in 2024 to identify risks faced by children under vulnerable conditions.

Methods: In the research, the scientific validity and reliability of the "Risk Assessment Form for Children" were examined. The study was designed as a cross-sectional survey employing a quantitative approach. The sample was obtained by the simple random sampling method. Data were obtained from 418 children through the developed form.

Results: Data analysis was performed to assess the construct validity of the risk items, utilizing the Cronbach's alpha (α) value for reliability analysis. Factor analysis was used in the validity assessment. The form reveals an adequate distribution as determined by the explanatory factor analysis of the Kaiser-Meyer-Olkin test. Cronbach's alpha (α) was calculated to be 0.9. Six sub-dimensions have been identified. A robust consistency has been seen among the sub-dimensions of the shape.

Conclusions: The findings indicate that the Risk Assessment Form for Children comprises 46 components in total. The findings demonstrate that the form is a reliable measurement tool for assessing risks to children.

Keywords: Vulnerable child, risk factors, validity, reliability, measurement

Vulnerable groups generally need more social protection and assistance to improve their physical, psychological, social, cultural, economic, and political conditions [1]. Children are consistently overrepresented in vulnerable population, involving adverse conditions and risky environment affect their development and increase their need for protection. The children under vulnerable conditions generally refer to children who experience neglect and abuse, are raised by a single parent, are refugees or asylum seekers, suffer from substance dependence, are in child labor, engage in criminal activities, have emotional and behavioral disorders, face health challenges, possess special needs, live on the streets, or have on-

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line addiction [2]. Due to a wide range of risks, these children's need for protection is higher than the general child population.

In fact, the challenging life situations encountered by children represent a global concern. It is estimated that over one billion children between the ages of 2-17 suffer from maltreatment, such as neglect or physical, sexual, or emotional abuse [3]. According to, one billion children globally are living in multifaceted poverty, which affects their access to basic necessities like food, water, housing, healthcare, and education [4]. In addition to poverty, many children around the world are severely impacted by conflict and the climate disaster [5]. Once more, it has been estimated that 300 million children between the ages of 2-4 are exposed to physical and/or psychological abuse by their parents or other caregivers [6]. It is estimated that at least 140 million children globally lack parental care when a variety of factors are taken into consideration; however, the true number is likely higher than official figures [7]. In Turkish context, around 350,000 children have lost one or both of their parents, 720,000 children aged 5 to 17 work in economic activities, 4.1% of children aged 5 to 14 have a disability in at least one bodily function, and seven million children live in poverty, according to official data [8, 9, 10, 11]. On the other hand, due to Turkey's substantial children population, which includes a significant non-resident migrant demographic, the child protection system must prioritize severe risks impacting children. Furthermore, in a changing society, the number of vulnerable children will probably increase considerably, necessitating the implementation of effective child protection and preventative measures [12].

To protect children under vulnerable conditions, immediate assessment and prioritize of the risks are essential [13]. The evaluation of risk factors aims to ensure the child's best interests by reducing and eliminating elements that harm the child through protective and preventive measures [14]. Assessing risk factors that adversely impact children's life and development is essential for identifying their vulnerability and represents a fundamental element of an efficient child protection system [15]. Risk assessment helps determine the nature and extent of the risk by considering potential dangers that could harm children and families, as well as the current conditions of vulnerability [16, 17]. Consequently, it is necessary to effectively use risk assessment tools by integrating them into protective and preventive services as well as case management processes [18].

These processes require a multidimensional perspective, an interdisciplinary approach, inter- institutional collaboration, and a holistic strategy [19]. The expertise, knowledge, skill level, and value awareness of professionals are important for the success of professional methods in identifying, analyzing, and interpreting risks [20].

The risk identification process involves assessing risks in different dimensions (cultural, environmental, social) an categorizing the level of detected risks (low, medium, or high). This is crucial for developing appropriate service models and intervention programs for children [21]. Public institutions and non-governmental organizations serving at-risk youth must undertake risk assessment processes in a comprehensive and holistic manner [20]. Structured measurement and evaluation tools employed in particular countries enable practitioners to perform assessments with enhanced clarity, specificity, and transparency; concurrently, they significantly reduce adverse effects such as bias and exclusion in the proposed services [22].

This study aimed to evaluate the scientific validity and reliability of the "Risk Assessment Form for Children," developed by the Ministry of Family and Social Services in 2024, which is based on scale design, in order to identify the risks affecting children under vulnerable conditions within the specified framework.

METHODS

The research was designed using a cross-sectional survey model based on quantitative methods. In this section, the methodological steps undertaken to determine the psychometric properties of the scale developed within the scope of the research are presented.

Ethics committee approval for the research was obtained from Giresun University Social Sciences, Science and Engineering Sciences Research Ethics Committee with the decision dated 04.04.2024 and numbered 5704, and the study was carried out between May and August 2024.

Population and Sample Selection

The research sample consists children in vulnera-

ble conditions who represent the target group for the services offered by the Ministry of Family and Social Services (MFSS). In this context, children who received services based on measures under the Child Protection Law No. 5395 (care, health, education, or counseling), obtained assistance from the Provincial Directorates of Family and Social Services, including Social and Economic Support (SED) service, and were identified in the field by the Children Are Safe Mobile Team were included in the study sample.

The sample size was determined by simple random sampling, a type of probability sampling. According to the 2022 Bulletin on Children Statistics from the Turkiye Statistics Institute, with a total children population of 22,578,378, the sample size was calculated as follows. Minimum numbers have been determined for the number of children to be included in the study (Min.≅384).

$$n_0 = \frac{Nt^2pq}{d^2(N-1)+t^2pq} = \frac{22578378(1,96)^2 0,5 * 0,5}{(0,05)^2(22578378-1)+(1,96)^2 * 0,5 * 0,5} \cong 384$$

The t-table value is 1.96 with a 95% probability.

Due to the presence of both high-risk and low-risk youngsters, P=0.5, q=0.5

N=Total population size

P=The frequency of the occurrence under examination

q=The frequency of the occurrence not being observed

t=the theoretical value obtained from the t-table at a specific degree of freedom and defined error level.

d=the deviation intended based on the frequency of the event's occurrence.

$$\text{Layer weight} = \frac{384}{22578378} = 0.000017007 \text{ (whoel sample)}$$

The study retrieved data on 418 children. The pilot study provided a statistically representative sample of children from the population. It is aimed to reflect the information obtained from the participating children, their parents, teachers, healthcare workers, and security personnel about the risks the sampled children are exposed to in the data collection tool.

Data Collection Tools

Data were collected using the Short Information Form to obtain the socio-demographic details of the children in the sample, and the Draft Risk Assessment Form, developed by the researchers and validated for content validity based on professionals' reviews, to identify risks related to the children.

The Draft Risk Assessment Form, intended for validity and reliability studies in the research, contains items aimed at identifying risks related to children. Each item includes a response scale to determine the presence and level of the risk it describes. The response scale is of the 5-point Likert type and includes the categories "Very low risk (-2)", "Low risk (-1)", "Uncertain risk (0)", "High risk (+1)", and "Very high risk (+2)".

During the data collection for content validity, an online version of the form was developed for effective implementation. Researchers gave comprehensive training to professionals on utilizing the Risk Assessment Form for data gathering. Thus, structure of the form incorporates a data gathering methodology grounded in professional assessments and observations, as instead of participants' self-reporting.

Statistical Analysis

In this section, results from validity and reliability analyses of the Draft Risk Assessment Form are presented.

Descriptive Anaysis

The demographic information includes numerical and percentage values as descriptive statistics. Demographic data includes information such as gender, nationality, family status, school enrollment, protective measures, unaccompanied status, and risk to personal safety.

Analyses of Validity and Reliability

The exploratory factor analysis of the acquired data set was conducted using the IBM SPSS Statistics Standard Concurrent User v.27 statistical software package. In exploratory factor analysis, dimensions representing the linear combination of observed variables serve as factors.

Factors are hypothetical variables formed by the observed variables. In the statistical testing of the correlation between variables in the data matrix, the Bartlett test of sphericity is used. The Bartlett test of sphericity determines whether the matrix generated by

the items is an identity matrix. Additionally, the Kaiser-Meyer-Olkin (KMO) measure, obtained by utilizing correlation and partial correlation coefficients, is also an important criterion for evaluating the suitability of the data for factor analysis.

In the study, the principal component method was used to obtain the factors. In determining the appropriate number of factors, the criterion of selecting as many factors as the number of eigenvalues greater than one has been taken into account. Furthermore, factor rotation was conducted to clarify the variables that contribute to the development of each common factor. The varimax approach was utilized for the specified procedure. Since the data did not follow a normal distribution in the analysis of correlations between factors, the Spearman rho coefficient was used. Confirmatory factor analysis was also applied to test the suitability of the factors obtained through exploratory factor analysis to hypothetical or theoretical factor structures. Confirmatory factor analysis is used to validate the structure obtained from exploratory factor analysis or the theoretical factor structure [20]. In exploratory factor analysis, the appropriate number of factors that will define the underlying structure is determined based on the data matrix, whereas in confirmatory factor analysis, the number of factors is known a priori. In the study, the open-source statistical package Jamovi (Version 2.4.8) was used for confirmatory factor analysis.

RESULTS

This section presents the development process, the descriptive findings of the participants, and the exploratory and confirmatory factor analyses results for the assessment form. The draft tool which was employed in the data collection phase is referred to "Risk Assessment Form for Children" in this section. The results that derived from the form's implementation are detailed below.

Development Process of the Risk Assessment Form for Children

The development process of the Risk Assessment Form for Children has been carried out in three main stages. The stages are explained in detail below.

1. Generating an item pool: A comprehensive pool of items identifying risks has been established through literature reviews and field studies to identify the items that represent risks impacting the target group. Current assessment tools such as Core Assessment Record, which is provided under Common Assessment Framework in the UK, were useful in generating the item pool. Additional sources referred to include the Guidance Needs Assessment Questionnaire (RİBA), employed by the Turkish Ministry of National Education, along with two others: the Evaluation Guide for Professionals in Child Protection and the Individual Risk Assessment Form (BİRDEF) utilized by the Turkish Ministry of Family and Social Services [9, 23].

In the development process, the perspectives of professionals in the field of social services-such as social workers, psychologists, psychological counselors, educators, law enforcement officers, and municipal officials-who interacted with children in vulnerable situations and delivered various services during field visits across different provinces have been helpful. A detailed list of items, including definitions of potential risks that encountered by children under vulnerable conditions, was gathered for the formation of risk assessment tools. A total of 198 items have been obtained.

2. Analyzing scope validity: Examining the relevancy of 198 items in the item pool was performed by the opinions of professionals from various provinces. This phase was carried out with 45 professionals participating online workshops in three different sessions by their convenience. The professionals were requested to express their opinions on the items created into an online format by selecting the options "not appropriate," "requires correction," and "appropriate." Accor ing on the collected comments, 98 items with a KVO (Scope Validity Index) score of 50 or higher were included in the pilot study. The scope validity phase has been established, and the first edition of the Risk Assessment Form for Children has been produced.

3. Conducting the pilot study: Professionals working for the Ministry of Family and Social Services participated in the real-world implementation of the draft form developed in accordance with the scope of validity. Training sessions on the proper application of the form were conducted for 150 professionals assigned with the implementation process. These professionals filled out the form by interviewing the children and/or their families, utilizing file information, relying on their observations of the children, or

consulting the opinions and information of other related professionals. In the pilot study, data of 418 was children obtained.

Sociodemographic Characteristics

Within the scope of the study, descriptive sociodemographic information about the children from whom data were obtained using the risk assessment form is presented in Table 1.

Table 1 reveals that the vast majority of the children are Turkish citizens, however other ethnicities are also included. 43% of participants live with both parents, 23% have divorced parents, 16% live apart from their parents. 87% of children (326) attend school, while 22% (92) do not. Risk screenings for children are mostly initiated by familial risk (34%, 141). This is followed by street risks (17%), parental loss (12%), and school risks (10%). For two-thirds of the children (63%), no preventative measures were taken, whereas such measures had been applied to about one-third (37%). No life threats were reported for the vast majority of children (97%), 3% of the sample has been reported as unaccompanied.

Results of Exploratory Factor Analysis

The KMO test assesses the adequacy of a distribution for factor analysis, with a result exceeding 0.60 deemed marginally suitable for this purpose. The KMO value in this study exceeds the threshold level. The Bartlett test yielded a result of 35437.555 ($P<0.001$). The results indicate that the variable is multivariate within the population parameter. Variance

Table 1. Descriptive characteristics about children included in the research sample

Sociodemographics		n	%
Gender	Girl	222	46.9
	Boy	196	53.1
Nationality	Turkiye	388	93.0
	Other	30	7.0
Family status	Parents together	179	43.0
	The parents are divorced.	98	23.0
	The parents live separately	65	16.0
	Mother has passed away	19	5.0
	Dad has passed away	57	11.0
Child's school enrollment	Yes	326	78.0
	No	92	22.0
The starting point of screening	Family risks	141	34.0
	Street-related risks	74	17.3
	Parental loss	51	12.2
	School-related risks	44	10.5
	Other	108	26.0
Precautionary measures undertaken for the child	Yes	152	37.0
	No	266	63.0
The child's unaccompanied status	No	406	97.0
	Yes	12	3.0
Life safety risks	No	387	93.0
	Yes	31	7.0
Total		418	100

Table 2. Variances of scale factors and factor loadings in pretest results

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Item 1	0.788					
Item 2	0.742					
Item 3	0.738					
Item 4	0.703					
Item 5	0.685					
Item 6	0.671					
Item 7	0.641					
Item 8	0.635					
Item 9	0.623					
Item 10	0.622					
Item 11	0.622					
Item 12	0.600					
Item 13	0.595					
Item 14	0.592					
Item 15	0.575					
Item 16	0.560					
Item 17		0.789				
Item 18		0.782				
Item 19		0.768				
Item 20		0.748				
Item 21		0.689				
Item 22		0.670				
Item 23		0.653				
Item 24		0.603				
Item 25		0.583				
Item 26			0.673			
Item 27			0.647			
Item 28			0.627			
Item 29			0.624			
Item 30			0.599			
Item 31			0.583			
Item 32			0.550			
Item 33				0.659		
Item 34				0.633		
Item 35				0.628		
Item 36				0.615		
Item 37				0.541		
Item 38					0.724	
Item 39					0.717	
Item 40					0.690	
Item 41					0.623	
Item 42						0.578
Item 43						0.554
Item 44						0.548
Item 45						0.548
Item 46						0.547
Eigenvalue	28.569	8.609	4.902	4.290	3.350	2.859
Variance explanation rate %	12.111	11.081	9.074	8.483	6.224	5.606
Croncbach's alpha	0.934	0.922	0.877	0.855	0.865	0.774

Total explained variance (%)=52.579 Kaiser Meyer Olkin (KMO)=0.924 Bartlett test value =35437.555; P<0.001
Croncbachs'Alpha (α)= 0.945

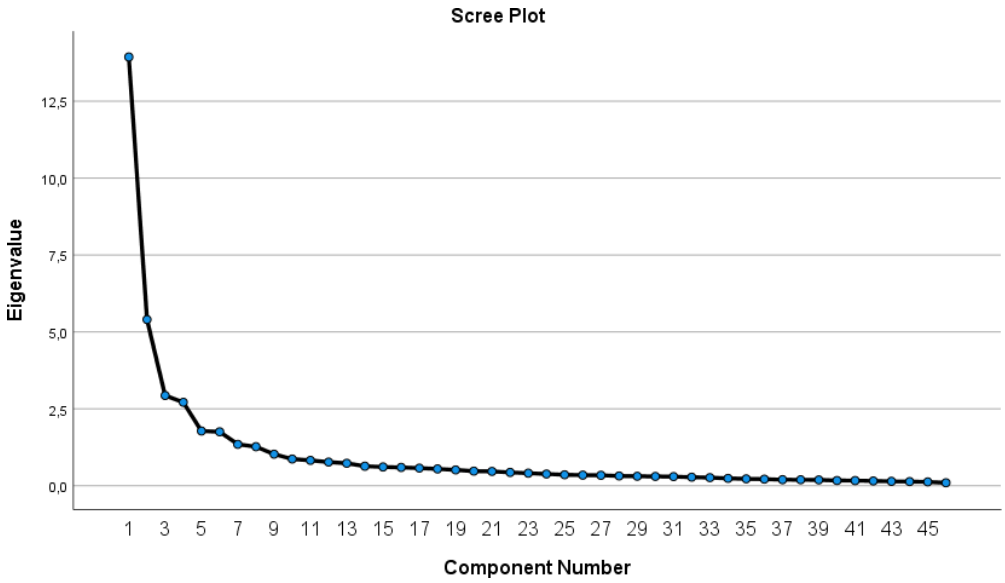

Fig. 1. Scree plot illustrating factor sub-dimensions.

ratios that fluctuate between 40% and 60% are deemed acceptable in factor analysis. (Table 2, Fig. 1).

In factor analysis, variance ratios between 60% and 80% are deemed optimal; so, the variance achieved in this study is at a satisfactory level (52.579).

The factor loadings for the pre-test results are as follows: the first dimension ranges from 0.560 to 0.788, the second dimension from 0.583 to 0.789, the third dimension from 0.550 to 0.673, the fourth dimension from 0.541 to 0.659, and the fifth dimension from 0.623 to 0.724. In the sixth dimension, the factor loadings of the questions vary from 0.547 to 0.578. (Table 2, Fig. 1).

In the reliability analysis conducted for the Risk Assessment Form for Children, the Cronbach's Alpha value was found to be 0.945. This value indicates that the form has a high degree of internal consistency. Generally, a Cronbach's Alpha value of 0.70 and above is considered sufficient for reliability. The value of 0.945 obtained in this study indicates that there is a strong consistency among the sub-dimensions of the Risk Assessment Form for Children and that the form is a reliable measurement tool for assessing risks to children. Additionally, it shows that there is a strong relationship among the risk factors that all the items in the survey attempt to measure, and that the form can be used appropriately for its intended purpose. Therefore, it can be concluded that the Risk Assessment Form for Children can be safely used in practical applications and will provide a scientific and reliable basis for decision-making processes in the child protection system. (Table 2, Fig. 1).

Results of Confirmatory Factor Analysis

The model derived for the scale ($\chi 2=1836$, df=847) consists of six dimensions. All dimensions are presented in Table 3, and the fit indexes show that the model reveals an acceptable fit.

Factor Correlation Analyses

As can be seen in Table 4, there are statistically significant correlations across all of the examined factors.

The analysis presents a confirmatory factor model

Table 3. Statistical metrics relating to the fit of the structural equation model

							RMSEA 90% CI	
χ^2	df	χ^2/ df	**P value**	CFI	TLI	RMSEA	Lower	Upper
1836	847	2.16	<0.001	0.925	0.909	0.052	0.049	0.056

Table 4. Factor correlation analyzes

		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Factor 2	rho	0.371				
	P value	**<0.001**				
Factor 3	rho	0.457	0.524			
	P value	**<0.001**	**<0.001**			
Factor 4	rho	0.523	0.324	0.435		
	P value	**<0.001**	**<0.001**	**<0.001**		
Factor 5	rho	0.352	0.524	0.402	0.356	
	P value	**<0.001**	**<0.001**	**<0.001**	**<0.001**	
Factor 6	rho	0.502	0.330	0.284	0.456	0.357
	P value	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**

rho=Spearman correlation coefficient

that indicates the interrelations among the sub-dimensions of the Risk Assessment Form for Children. Confirmatory factor analysis was used to validate the structures derived from exploratory factor analysis. Fig. 2 illustrates the contribution of each sub-dimension to the overall framework of the Child Risk Assessment Form and the interrelations among these dimensions. This model illustrates the six sub-dimensions of the Risk Assessment Form for Children (Risky Behaviors, Basic Needs, Child Labor, Exposure to Violence, Developmental Difficulties, Emotional and Psychological Symptoms) in interaction with one another. Fig. 2 shows the model developed for the confirmatory factor analysis concerning the interaction among the sub-dimensions of the examined scale.

The confirmatory factor analysis model shows that the theoretical sub-dimensions of the Risk Assessment Form for Children work consistently with each other

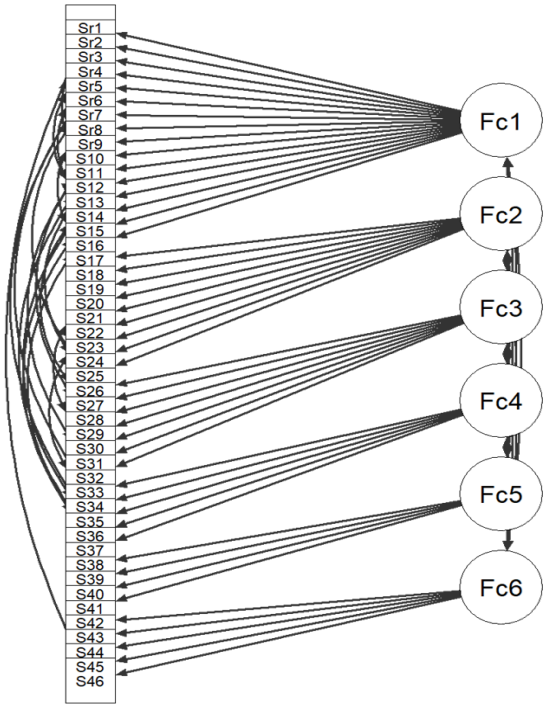

Fig. 2. Confirmatory factor analysis model for interaction among sub-dimensions of the scale.

and are suitable for assessing the risks children are exposed to. This model confirms that there is a strong relationship between the sub-dimensions of the dataset and that each dimension is valid and reliable for measuring the intended risk areas. Additionally, the results of the fit indexes presented in the model (CFI, TLI, RMSEA) indicate that the model is well-aligned with the data set (Table 3). This result supports the notion that the Risk Assessment Form for Children is a consistent and scientifically valid measurement tool for identifying risks to children.

DISCUSSION

This study examines the psychometric features of the Risk Assessment Scale for Children, a pioneering tool in Turkiye designed to assess the main risks encountered by children under vulnerable conditions.

Validity and reliability analyses ensure the scale reliably and consistently measures the phenomenon at issue [24, 25]. Validity requires a measurement tool to accurately assess the intended phenomena and assess it without ambiguity across several domains. In this instance, the scale must have goal-oriented content and undergo comprehensive construct validity evaluation [24, 26]. In comparison to scales previously established in the literature, this scale demonstrates notable differences in both comprehensiveness and originality. The Child Behavior Assessment Scale [27], the Risky Behaviors Scale [28], the Social Exclusion Scale for Children [29], the Attitude Scale towards Bullying for Children [30], the Online Child Exploitation Risk Scale [31], the Nutrition Screening Tool for Preschool Children [32], and the Research and Assessment Form for Children and Adolescents in Conflict with the Law [33] are instruments that primarily focus on specific risks encountered by children, rather than integrating various risk dimensions tied with a single case.

The current study aims to establish a framework for a combined assessment of such risks to address this issue. The six dimensions outlined by the scale (risky behaviors, unmet basic needs, child labor, exposure to violence, developmental difficulties, emotional and psychological symptoms) underscore the significance of integrating risk factors that represent the characteristics of cases observed in the practical setting.

Several internationally developed comprehensive evaluation inventories, such as the Child and Adolescent Needs and Strengths (CANS), Structured Decision Making (SDM), and Common Assessment Framework (CAF), which included various iterations for risk assessments targeting children and families, particularly in developed nations, provided valuable insights for comparison. Using comprehensive risk assessment inventories in practice might have some disadvantages. The long and complex structure of such tools is often seen as a disadvantage from the practitioners' perspective. The fact that practitioners have to spend a long-time completing evaluation can be challenging in practice environments with a high case turnover.

On the other hand, applying and interpreting these tools effectively requires a certain level of expertise or training [34, 35, 36]. The requirements for a certain competency level and extensive training to utilize these instruments may raises challenges for institutions and organizations with constrained resources regarding personnel and infrastructure. Consequently, the current tool was designed to be both multidimensional and user-friendly while fulfilling few professional requirements.

The Individual Risk Assessment Scale (BİRDEF), developed in Turkiye, provided a primary reference for the scale examined in this study. BİRDEF has been developed as a tool to assess the risks and needs of children in institutional care [22]. In this regard, BİRDEF emphasizes on a specific category of at-risk youth. The tool addresses the present risks to children, including economic status, abuse, behavioral problems, individual characteristics, living conditions, and familial characteristics, as outlined in the assessment tool examined in this study. The Child Risk Assessment Form, on the other hand, is considered a distinguishing feature of the scale as it is designed to be applied to a broader population of children at risk.
Risk assessments must incorporate contextual and cultural diversity of the risks faced by children. In this perspective, cultural sensitivity was prioritized in the scale development process, and ongoing engagement with field professionals was emphasized along the development process [37].

To figure out the structural validity of the scale, a factor analysis model was employed, and upon

analysing the statistical values related to the fit of the structural equation model, it can be concluded that the model's fit indexes are at an acceptable level. The KMO value obtained prior to factor analysis should exceed 0.50 to ensure sample size sufficiency [37]. The KMO test result in our study is 0.924. The KMO value in the study is at a borderline acceptable level. To determine the adequacy of the sample size, the outcome of the Bartlett test of sphericity must be statistically significant. The Bartlett test result in our study was 35437.555 ($P<0.001$). This result indicates that the measurement variable is multivariate in the population parameter. This study considered variance ratios in factor analysis acceptable between the 40% to 60% range.

In factor analysis, given that variance ratios between 60% and 80% are ideally accepted, it can be asserted that the variance acquired in this research is also at an adequate level (52.579). The KMO test returned a value of 0.924, and the findings of the Bartlett test for sphericity analysis were also examined. The Cronbach α analysis performed to evaluate the reliability coefficients of the scale indicates that the coefficients are adequate. The Cronbach α method is particularly recommended to evaluate the reliability of Likert-type scales and serves as a methodology for calculating the internal consistency of the items within the measurement tool [38]. To define a measurement tool appropriate, the reliability coefficient should approach [39]. The Cronbach α coefficient indicates measurement instrument reliability as follows: less than 0.40 signifies unreliability; 0.40-0.59 indicates moderate reliability; 0.60-0.79 reflects considerable dependability; and 0.80-1.00 represents great reliability [37]. The study calculated Cronbach's α to assess internal consistency dependability. The Cronbach's α reliability coefficient was determined to be 0.945. The internal consistency of the scale is significantly reliable.

The Risk Assessment Form for Children presented in the study indicates adequate distribution as indicated by the Kaiser-Meyer-Olkin test and exploratory factor analysis. The confirmatory factor analysis model demonstrates that the theoretical sub-dimensions of the form are consistently aligned and appropriate for assessing the dangers faced by children. The confirmatory factor analysis model demonstrates strong connections among the sub-dimensions of the scale, affirming the validity and reliability of each dimension in assessing the designated risk areas.

CONCLUSION

The Child Risk Assessment Form, developed to identify risks affecting children under vulnerable conditions, functions as a comprehensive and reliable tool for assessing such risks in Turkiye. To improve the efficacy of the child protection system, it is crucial to precisely and consistently identify risks, particularly for early interventions. These sub-dimensions systematically address the risks encountered by children, facilitating the establishment of protective and preventative measures. The form influences practitioners' decision-making processes, establishing a scientifically grounded basis for policies and actions focused on child protection.

Evaluation tools based on systematic and scientific foundations play a critical role in the development of child protection policies. Therefore, sharing the results of risk assessments with policymakers will contribute to decisions regarding children's rights being based on more solid foundations. At the national level, it is recommended that these results be incorporated into policy development processes. Additionally, addressing risk assessment processes with a multidisciplinary approach that includes experts from various sectors such as health, education, and security, not just social service professionals, will ensure a more comprehensive evaluation of risks. Therefore, it is recommended to strengthen the cooperation mechanisms with all relevant stakeholders during the implementation process of the Risk Assessment Forum for Children. Additionally, considering the diversity of risks faced by children in different regions, it is important to conduct risk analyses that take regional differences into account. In this context, it is recommended to develop unique service models for each region based on the data from the Risk Assessment Form for Children and to create intervention strategies tailored to regional needs.

It is recommended that the training of practitioners utilizing the Risk Assessment Form for Children be constantly updated, and that training programs focused on the proper effective use of the form should be developed. Additionally, the proficiency of practitioners in risk identification can be improved, and additional qualitative data can be acquired. Furthermore, to guarantee that the risk assessment outcomes are not limited to temporary detections, continuous monitoring of

children should be implemented. The data obtained through the Risk Assessment Form for Children can be utilized to monitor changes in children's risk situations over time and to assess the efficacy of intervention efforts. Ultimately, providing the Risk Assessment Form for children on digital platforms would facilitate more rapid and more effective data processing.

Furthermore, it is recommended to implement a national data tracking system to continuously evaluate risks to children and enhance service delivery with current data. This method facilitates the creation of risk maps at both regional and national levels. The national implementation of the Risk Assessment Form for Children will improve the quality of child protection programs and assist in the effective mitigation of risks faced by children.

In conclusion, subsequent research informed by these recommendations will enhance the fficacy of child protection programs by broadening comparative analyses and supporting them with additional data.

Ethical Statement

Ethics committee approval for the research was obtained from Giresun University Social Sciences, Science and Engineering Sciences Research Ethics Committee with the decision dated 04.04.2024 and numbered 5704, and the study was carried out between May and August 2024.

Authors' Contribution

Study Conception: MT, NÇ, AS, TT, İKE; Study Design: MT, NÇ, AS, TT, İKE; Supervision: MT, NÇ, AS; Funding: TT, İKE; Materials: MT, NÇ, AS, TT, İKE; Data Collection and/or Processing: MT, NÇ, AS, TT, MAT; Statistical Analysis and/or Data Interpretation: MAT; Literature Review: MT, NÇ, AS; Manuscript Preparation: MT, NÇ, AS, TT, MAT and Critical Review: MT, NÇ, AS, TT, İKE, MAT.

Conflict of interest

The authors disclosed no conflict of interest during the preparation or publication of this manuscript.

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Annotation

This study was carried out as a task within the project titled as "Technical Assistance for the Support for Children's Rights in Turkiye" which implemented under the EU Instrument for Pre- accession Assistance (IPA-2). In the scope of Project Activity 4.1 "Development of methods for identifying children under vulnerable conditions", the authors committed to develop tools for identifying children at-risk for the Main Beneficiary of the project, the Turkish Ministry of Family and Social Services.

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Editor's note

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REFERENCES

1. Altuntaş O, Altınova HH. [Representation of Children at Risk in the Mainstream Media in Turkey]. Ergoterapi ve Rehabilitasyon Derg. 2015;3(2): 59-69. [Article in Turkish]
2. Dönmez İ, Doğan H. [An Investıgation On Children At Risk (Example Of Muş)]. Adıyaman Üniversitesi Sosyal Bilimler Enstitüsü Derg. 2020;36:455-489. doi: 10.14520/adyusbd.720605. [Article in Turkish]
3. Hillis S, Mercy J, Amobi A, Kress H. Global prevalence of past-year violence against children: A systematic review and minimum estimates. Pediatrics. 2016;137(3):e20154079. doi: 10.1542/peds.2015-4079.
4. UNICEF. Child poverty: How many children live in poverty? UNICEF. https://www.unicef.org/social-policy/child-poverty. 2024.
5. Save the Children (2022) Generation Hope: Standalone Summary [PDF]. https://resourcecentre.savethechildren.net/p8jywI6/. Access Date: 05.04.2024.
6. World Health Organization (WHO). Child maltreatment. World Health Organization. Retrieved from. 2022. https://www.who.int/news-room/fact-sheets/detail/child-maltreatment
7. Nar C. 2020 orphan report. INSAMER. Retrieved from https://en.insamer.com/uploads/pdf/dosya_2928-1.pdf

8. [Ministry of Family and Social Services (ASHB). Evaluation Guide for Professionals Working in the Field of Child Protection]. 2024. https://www.aile.gov.tr/ [Article in Turkish]
9. Aile ve Sosyal Hizmetler Bakanlığı (ASHB). 2023-2028 Türkiye çocuk hakları strateji belgesi ve eylem planı. 2023. https://www.aile.gov.tr/media/132816/turkiye-c-ocuk-haklari-strateji-belgesi-ve-eylem-plani-2023-2028-dijital.pdf. Access Date: 10.04.2024.
10. Türkiye İstatistik Kurumu (TÜİK) & UNICEF. Türkiye'deki çocuklar 2023: İstatistiklere bakış. https://www.tuik.gov.tr/media/announcements/Turkiye_Cocuk_2023.pdf. Access Date: 1.04.2024.
11. UNICEF. Child poverty: How many children live in poverty? UNICEF. https://www.unicef.org/social-policy/child-poverty. Access Date:1.04.2024.
12. Bayındır N. [Views of Preservice Teachers on the Detection and Protection of Children at Risk]. 21. Yüzyılda Eğitim ve Toplum. 2021;10(28):187-202. [Article in Turkish]
13. Elmacı F. [The School's Role in Safeguardıng and Promotıng the Welfare Of Children: England Sample]. Türk Eğitim Bilimleri Derg. 2009;7(1):69-84. [Article in Turkish]
14. Austin AE, Lesak AM, Shanahan ME. Risk and protective factors for child maltreatment: A review. Curr Epidemiol Rep. 2020;7(4): 334-342. doi: 10.1007/s40471-020-00252-3.
15. Akkuş P. [Social Services for Children at Social Risk: An Assessment After 2000]. Çocuk ve Medeniyet. 2016;1(2):57-79. [Article in Turkish]
16. UNHCR. The Heightened Risk Identification Tool User Guide. Switzerland: United Nations High Commissioner for Refugees. 2008.
17. UNHCR. Outcome and Enabling Areas: Child Protection. https://reporting.unhcr.org/global-appeal-2025/outcome-areas/child-protection. Access Date: 04.04.2024.
18. McNellan CR, Gibbs DJ, Knobel AS, Putnam-Hornstein E. The evidence base for risk assessment tools used in U.S. child protection investigations: A systematic scoping review. Child Abuse Negl. 2022;134:105887. doi: 10.1016/j.chiabu.2022.105887.
19. D'Andrade A, Austin MJ, Benton A. Risk and safety assessment in child welfare: instrument comparisons. J Evid Based Soc Work. 2008;5(1-2):31-56. doi: 10.1300/J394v05n01_03.
20. Tekindal M, Çalış N. Hassas koşullar altındaki çocukların tespiti (Özne Çocuk Projesi Raporu) https://oznecocuk.com/wp-content/uploads/2023/10/Faaliyet-4.1_Hassas-Kosullar-Altindaki-Cocuklarin-Tespiti_Approved-on-17072023.pdf. 2023. Access Date: 04.05.2024.
21. Baker K. Assessment in Youth Justice: Professional Discretion and the Use of Asset in Youth. Justice. 2005;5(2):106-122. doi: 10.1177/147322540500500204.
22. Ögel K, Yücesan S, Vaizoğlu Ç, et al. [Reliability and Validity of Personal Risk Assessment Form (BIRDEF) for Children Under Institutional Care]. Turkish J Clin Psy. 2016;19(2):60-72. doi: 10.5505/kpd.2016.38257. [Article in Turkish]
23. Milli Eğitim Bakanlığı (2024). Rehberlik İhtiyacı Belirleme Anketi (RİBA). https://orgm.meb.gov.tr/. Access Date: 25.04.2024.
24. Ercan İ, Kan İ. [Reliability and Validity in The Scales]. Uludağ Üniversitesi Tıp Fak Derg. 2004;30(3):211-216. [Article in Turkish]
25. Yıldız A, Bütün M, Türkdoğan A, Kocak E. Development of a perception scale of private lesson: a validity and reliability study. Mimbar Sekolah Dasar. 2022;9(3):517-534. doi: 10.53400/mimbar-sd.v9i3.45144.
26. DeVellis RF, Thorpe CT. Scale development: Theory and applications. 5th. ed., Sage Publications, Inc., 2022.
27. Şişman FN, Ergün A, Sezer Balcı A. Psychometric properties of the Turkish version of the behavior assessment for children (BAC) scale. Curr Psychol. 2021;40(11):5678-5690. doi: 10.1007/s12144-021-02098-4.
28. Gençtanırım D, Ergene T. [Development Risk Behaviours Scale: Vadility And Reliability Studies]. Int J Soc Sci. 2014;25(1):125-138. doi: 10.9761/JASSS2304. [Article in Turkish]
29. Karakaya C, Özsavran M, Kurt A. The Social Exclusion Scale for Children (SESC): A Validity and Reliability Study in Turkish. J Soc Serv Res. 2024;50(5):771-783. doi: 10.1080/01488376.2024.2375518.
30. Fakirullahoğlu AM, Köseoğlu A. [Validity and Reliability Study of the Attitudes Towards Bullying Scale for Children]. Humanistic Perspective. 2021;3(3):593-609. doi: 10.47793/hp.975578. [Article in Turkish]
31. Aktu Y. [Adaptation of the Online Grooming Risk Scale To Turkish Culture]. Pamukkale Üniversitesi Sosyal Bilimler Enstitüsü Derg. 2024;62:369-378. doi: 10.30794/pausbed.1431239. [Article in Turkish]
32. Azak M, Gözen D. Validity and Reliability of the Turkish Version of the Nutri STEP Questionnaire. CURAR Journal of Nursing. 2024;5:35-42. doi: 10.26650/CURARE.2024.1447500
33. Ögel K, Karadayi G, Şenyuva G, Topsakal-Özdemir E. [Assessment of risks and needs of juvenile offenders: Development and Standardization of Examination and Assessment Form (ARDEF)]. Anadolu Psikiyatri Dergisi. 2011;12(2):143-150. [Article in Turkish]
34. Miller J, Maloney C. Practitioner Compliance With Risk/Needs Assessment Tools: A Theoretical and Empirical Assessment. Crim Justice Behav. 2013;40(7):716-736. doi: 10.1177/0093854812468883
35. Nethercott K. Assessment or referral tool: the unintended consequences of a dual purpose common assessment framework form. J Interprof Care. 2021;35(1):1-9. doi: 10.1080/13561820.2019.1705772.
36. Vis SA, Lauritzen C. Child Protection Managers' Views on Frameworks for Assessment of Children in Need. Child Care Pract. 2022;28(4):639-652. doi: 10.1080/13575279.2020.1816530.
37. Tekindal M, Tekindal MA. Validity and Reliability of Basic Depression Scale For Turkey. Med J West Black Sea. 2021;5(3): 452-463. doi: 10.29058/mjwbs.906629.
38. Cronbach LJ, Shavelson RJ. My current thoughts on coefficient alpha and successor procedures. Educ Psychol Meas. 2004;64(3):391-418. doi: 10.1177/0013164404266386.
39. Field A. Discovering statistics using SPSS. Thousand Oaks, CA, US. 2005: pp. 600-650.