

# Child refugee's social skills and resilience: Moderating effects of time in refugee camp, parental education, and preschool attendance

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## Abstract

In this cross-sectional study, we examine the relationship between social skills and resilience and the moderating effects of time spent in a refugee camp, parental education, and schooling on Syrian children who have been forcibly displaced to Turkey. Five hundred and twenty-six preschool-aged children (56.3% female,  $M_{age} = 5.79$ ) were recruited to participate in this research. The Turkish version of the Child and Youth Resilience Measure-Revised (CYRM-R) and the Early Childhood Social Skills Measure (ECSSM) were used to assess refugee children's social skills and resilience, respectively. Results show that the children's social skills were positively related to resilience with length of time spent in a refugee camp, the parental education level, and preschool attendance moderating this association. These results highlight the role of social skills as a possible means of enhancing refugee children's resilience.

## KEYWORDS

refugee children, resilience, risk and protective factors, social ecological, social skills

## 1 | INTRODUCTION

Each year, millions of children are at risk of becoming displaced refugees resulting from war and/or persecution (United Nations High Commissioner for Refugees, 2019). In the case of Syria, refugee children continue to be exposed to multiple risk factors even upon successful arrival in a host country (Oppedal et al., 2018). While some research has focused on the impact of multiple risk factors on the successful psychosocial development of refugee children (Catani et al., 2008), other studies have emphasized the importance of protective factors (e.g. supportive

environments, school attendance, positive family relationships, etc.) that mitigate the negative effects of risk factors while promoting positive development (Cummings et al., 2017; Fazel et al., 2012). Major developmental risk factors for refugee children include barriers to educational access (Oppedal et al., 2018), low socio-economic status, post-traumatic stress, varying forms of domestic abuse, challenges in social relationships, poor health (Marshall, 2017; Samara et al., 2020), and growing up in non-supportive environments (such as refugee camps or socially toxic family environments).

For the purpose of this study, we define childhood resilience as a social-ecological process which facilitates the capacity of children to access the psychological and social supports required to overcome the many challenges they face. As Ungar (2011) explains:

[I]n the context of exposure to significant adversity, resilience is both the capacity of individuals to *navigate* their way to the psychological, social, cultural, and physical resources that sustain their wellbeing, and their capacity individually and collectively to *negotiate* for these resources to be provided and experienced in culturally meaningful ways. (p. 10)

Understanding resilience as a process requires us to consider a child's individual characteristics (i.e. stress level, gender, health including mental health, etc.), quality of the child's environment, and the child's access to resources that support development and reduce risk exposure.

While a large number of risk and protective factors have been identified that affect refugee children, a number of studies have focused on the important link between social skills and resilience specifically (Bernaras et al., 2018; Sheppard & Clibbens, 2015). Masten (1994) suggests that social skills such as communication, self-confidence and empathy for others are linked with resilience because each skill helps to enhance a child's access to psychosocial supports. Likewise, Oshri et al. (2017) conducted a three-year longitudinal study with 11–15-year-old maltreated children. Their results show that earlier access to opportunities to develop social skills (i.e. healthy family relationships, community support, peer relations, positive school interactions, etc.) increase an individual's probability that social skill development will lead to longer-term resilience.

The development of social skills, however, is dependent on more than child-level variables. Studies of refugee children have shown that early school experiences, parent-child relationships, and quality of the living environment predict skill development during childhood (Farver et al., 2002; Hamilton, 2004). Factors known to inhibit social skill acquisition by refugee children include experiences of the unsanitary and unstable living environments found in refugee camps, low socio-economic status, and not attending school (Elbert et al., 2009; Sirin & Rogers-Sirin, 2015). For example, a longitudinal study (Thabet & Vostanis, 2000) with refugee children, most of whom were living in refugee camps, found that socio-economic adversities were more likely to be present for children who reported symptoms related to trauma. Other research on refugee children suggests a link between higher levels of psychological distress, depression, and mental health, and the time spent at the refugee camp (Mascini et al., 2012; McKelvey & Webb, 1997). More recent studies on resilience in the context of resource poor environments corroborate the relationship between poor social skills and lower levels of resilience (Alvord & Grados, 2005; Masten & Narayan, 2012; Rasmussen & Annan, 2010).

This literature, however, has not fully explored the strength of this relationship, especially in the context of a refugee camp. Given the lack of studies which account for children in refugee camps' perspectives on social skills and resilience, this study focuses on the impact of protective and risk factors in the refugee camp. In this regard, the current study investigates the association between social skills and resilience among refugee children, while identifying the moderating effect of length of time spent in a refugee camp, duration of school attendance, and the parental education levels. Using previous studies as a guide, these variables were selected as moderator variables given their importance in predicting a child's experience growing up in a refugee camp and how these experiences affect a child's access to psychological and social resources (Akesson, 2014; Esquivel et al., 2010; Panter-Brick et al., 2009;

Pieloch et al., 2016; Pine et al., 2005; Reed et al., 2012; Schoon, 2012). Hence, the next section presents a review of the literature to develop our hypotheses.

## 2 | HYPOTHESIS DEVELOPMENT

### 2.1 | The moderating role of time in refugee camp

According to the research of socio-ecological theory, it is clear that a child's development depends on multiple systems interaction between biological and psychological processes, and socio-ecological conditions (Ungar, 2015; Ungar & Theron, 2020). The refugee camp setting has consistently been defined as an important indicator that hinders the development and psychological wellbeing of refugee children as it contains multiple risk factors of all systemic levels such as violence, abuse, lack of resources and infrastructure (Saidan et al., 2017; Veronese et al., 2012). Refugee camp-related these life-threatening risk factors can induce low levels of arousal, anxiety, depression, and post-traumatic stress disorder in children (Nasıroğlu et al., 2018; Veronese et al., 2021). Consistent with this point, researchers have found that refugee children living in camps were intense exposure to traumatic events (Bronstein & Montgomery, 2011; Eruyar et al., 2020). For example, the study conducted in a camp stated that even 1 year after the migration process, although the children had emotional and behavioural problems as well as symptoms of mental disorders, the vast majority of them could not seek psychological or psychiatric care due to lack of resources in the camp (Çeri & Özer, 2018).

So far, although significant progress has been made in identifying factors affecting the development of refugee children including refugee camp conditions (Kuru & Ungar, 2021; Rothe et al., 2002), little attention has been devoted to the function of the length of time spent in a risky environment at the chronosystem level which refers to change over time in ecological theory. From the perspective of theoretical evidence, most child development and resilience studies have paid attention to long-term exposure to risk over time increases the risk. To be specific, in the absence of external and meaningful support, children will eventually succumb to risk (Garmezy, 1993; Ungar et al., 2013). For example, Poole et al. (2018) pointed out that the duration of time spent in a camp is a significant risk factor for major depressive symptoms and the passing of time in a refugee camp can cause weighty implications for refugees based on the research they conducted in a Greek refugee camp. Moreover, multiple prior qualitative studies supported that living in a camp affected the wellbeing of children, with problems like physical injuries, high levels of psychological distress among children, fear of insecurity, and hopelessness (Kuru & Ungar, 2021). To the best of the knowledge of the authors, the moderating effect of the length of time spent in a refugee camp between these two variables has not yet been explored. Thus, one of the objectives of this research is to understand the internal mechanism of this issue, since this could lead to comprehension of how social skills and resilience are related to time spent in a camp. Based on resilience and social skill development literature in children, the following hypothesis is proposed:

- H1.** The length of time spent in a camp moderates the relationship between resilience and social skills.

### 2.2 | The moderating role of school

Although the emerging literature underlines the crucial role of participation in the school system to mitigate the adverse effects of war and displacement on refugee children's development in resettlement communities (Erdemir, 2022; Gatt et al., 2020), refugee children often experience limited access to school. School is considered as the basic starting point for the prevention of ongoing and existing inequality (Jeon & Neppi, 2019; Kuru & Ungar,

2021) and serves as the centre of educational, social, and emotional development that promote resilience for children (Fazel et al., 2005; Twum-Antwi et al., 2020; Ungar, 2010) which means refugee children and their experiences with peers, teachers, or the family in schools allow them to thrive despite exposure to adversity. For example, considering the refugee preschool children living in Turkey who typically have been exposed to high levels of trauma (Sirin & Rogers-Sirin, 2015), positive school experiences can serve as protective factors for them (Fazel et al., 2016; Sujoldžić et al., 2006). In this regard, adjustments in the education policy for young refugee children who cannot attend school due to the war, play a crucial role in supporting the psychological development of the child (Ungar, 2012). Likewise, in their qualitative study on the resilience of refugee preschool children living in the refugee camp, Kuru and Ungar (2021) used in-depth interviews and focus groups to show that despite the many challenges in the refugee camp, quality schooling was consistently identified by refugee mothers as one of the most important protective factors for children. Therefore, the following hypothesis is proposed as follows:

H2. Duration of school attendance moderates the relationship between resilience and social skills.

### 2.3 | The moderating role of parental education

According to previous work with similar populations parental education level was associated with numerous variables which effect children's psychosocial development such as family environment including parenting behaviour, family income, and quality of parent-child relationship (Davis-Kean, 2005; Jeon & Neppel, 2019; Kumpulainen et al., 2016; Mutimer et al., 2007; Ungar & Hadfield, 2019). For example, in a study with Syrian refugee children, having a less educated father was determined as a risk factor on children's social and emotional development (Çeri & Nasiroğlu, 2018) while in the study conducted with immigrants, low education of both mothers and fathers was associated with more psychological problems among Turkish immigrants in The Netherlands (Murad et al., 2004). Given these findings, it is very likely possible that as refugee parents are better educated, they are more likely to raise children with better psychological functioning due to its association with the capacity of the refugee parent as a unit to access resources and its impact on household income (Esquivel et al., 2010; Sayil, 1984; Schoon, 2012). In line of this finding, it raises the question of whether there is a relationship between social skills and resilience of refugee children moderated by parental educational level. Accordingly, this study has the following hypothesis:

H3. Parental education moderates the relationship between resilience and social skills.

## 3 | METHODS

### 3.1 | Study design and participants

This study used a cross-sectional design and included quantitative data collected from low-income Syrian refugee children who can speak and understand the Turkish language (all participants were of Turkmen origin and therefore Turkish speaking). Data was obtained from a sample of 526 pre-schoolers attending morning (Phase 1) and afternoon (Phase 2) classes in a refugee camp located in southern Turkey (see Table 1) (56.3% female;  $N = 296$ ). All participants were between 5 and 7-years old, with an average age of 5.79 years ( $SD = 0.69$ ).

### 3.2 | Measures

Two measures were used to collect data on social skills and resilience: The Early Childhood Social Skills Measure (ECSSM—developed for this study) and the Child and Youth Resilience Measure-Revised (CYRM-R; Jefferies

**TABLE 1** Sample characteristic.

	Sample characteristics of phase 1				Sample characteristics of phase 2				Main study sample					
	Total (N = 300)		Father		Total (N = 226)		Mother		Total (N = 526)		Mother		Father	
	M	SD	n	%	M	SD	n	%	M	SD	n	%	n	%
Age (years; age range = 5–7 years)	5.89	0.69	6	0.64	5.79	0.69								
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Gender (%girl)	145	48.3	151	66.8	296	56.3								
Duration of refugee camp														
0–1 year	27	9.0	18	7.9	45	8.6								
1–2 years	36	12.0	42	18.5	78	14.8								
More than 2 years	237	79.0	166	73.4	403	76.6								
Duration of school attendance														
0–1 year	232	77.3	173	76.5	405	77.0								
1–2 years	42	14.0	31	13.7	73	13.8								
More than 2 years	26	8.6	22	9.7	48	9.2								
Education level														
Primary school	53	17.6	155	51.6	29	12.8	108	47.7	82	15.6	263	50.0		
Secondary school	87	29.0	11	3.6	71	31.4	13	5.7	158	30.0	24	4.6		
High school	109	36.3	62	20.6	64	28.3	42	18.5	173	32.9	104	19.8		
University	37	12.3	65	21.6	21	9.2	38	16.8	58	11.0	103	19.6		
Primary school dropout	14	4.6	7	2.3	41	18.1	25	11.0	55	10.5	32	6.1		

et al., 2018). In addition to these two self-report measures, socio-demographic information was collected from participants' parents. This included: child's age, gender, parents' education level, employment status, the length of time spent in a refugee camp, and the length of time they have participated in formal early childhood education.

### 3.3 | Early Childhood Social Skills Measure

Though researches have shown the importance of children completing self-reports of their experience of potentially traumatizing events and aspects of social-emotional development (Putnam, 2006) there are few self-report measures for children that evaluate their level of social skills (Ladd et al., 1996; Reynolds & Kamphaus, 1998). For this reason, this study developed a new scale, a three-point ECSSM, for the purpose of examining preschoolers' social skills in the context of a refugee camp. The measure consists of 23 items and 6 sub-dimensions (cooperation, empathy, communication, self-control, responsibility and assertion).

At the beginning, the first step of the scale development process, the generation of the item pool began with a review of the literature in areas such as social competence, peer relations, social adaptation, and prosocial behaviour in early childhood. During the first phase of the measure development process, 10 preschool teachers from Turkey (working in public schools located in low socio-economic areas) who had Syrian refugee children in their classrooms were interviewed about their perceptions of what constitutes social skills for preschool children. These two processes—the literature review and focus group interviews—resulted in a 48-item scale suitable for use with preschool children. Items were scored on a 3-point Likert scale (*always, sometimes, never*). Questions were simply worded, with phrases such as: 'Do you follow the rules?' or 'Do you participate in the classroom activities?' After receiving research ethics board approval, the item pool was pilot tested with 20 Syrian refugee preschool children aged 5–7 (50% female) ( $M_{\text{age}} = 5.90$ ,  $SD = 0.87$ ) attending an early childhood education program hosted by the Red Crescent in the refugee camp where the children resided. Afterwards, the items were reworded to improve clarity and ease of comprehension.

During the second phase of the ECSSM measure development, researchers used an expert review method to ensure content validity. Eight doctoral faculty members in early childhood education, educational psychology, and child development from five different universities volunteered to participate in this expert review. As a result of this review, eight items were deleted, five items were added, while all remaining 45 items were modified to enhance comprehension by the children.

#### 3.3.1 | Phase 1: ECSSM Principal component and parallel analyses

The revised version of the ECSSM was administered to a sample of 300 preschool refugee children ( $M_{\text{age}} = 5.89$ ; 43.6% male; see Table 1 for more details) attending a refugee camp educational centre. Teachers distributed letters of consent to all children in their class. Children who attended morning classes and returned their consent forms were included in the sample. Principal component analysis was conducted using SPSS version 24.0 using varimax rotation; the KMO measure of sampling adequacy was 0.866, and the Bartlett test of sphericity reached statistical significance ( $p < 0.001$ ). Parallel analysis was also conducted simultaneously to decide how many factors to retain, which has been found to be superior to Kaiser's criterion and the screen test for identifying factors. Items with factor loadings lower than 0.32 were deleted. After completing the iterative process of the principal component analysis, 14 items were deleted due to high cross-loading or low factor loadings, and a six-factor structure was determined. These factors were the following: cooperation, self-control, responsibility, assertion, empathy, and communication. The 31 items that were retained explained 72.94% of the variance. For the total scale, the Cronbach's alpha was 0.94. Acceptable model fit was achieved ( $\chi^2 = 963.61$ ,  $df = 465$ ,  $p < 0.001$ ).

### 3.3.2 | Phase 2: ECSSM confirmatory factor analysis

The second sample consisted of 226 refugee children ( $M_{\text{age}} = 5.96$ ; 43.3% male; see Table 1 for more details) who participated in the second phase of the research and attended afternoon classes in the same refugee camp as the first sample. The ECSSM was administered using the same procedures as described during the first phase of data collection. A confirmatory factor analysis (CFA) in AMOS version 25 was undertaken on the six-factor structure of the ECSSM. A review of the factor loadings indicated that eight items could be deleted due to high cross-loadings ( $r > 0.32$ ), or due to items being loaded onto unrelated factors (Tabachnick & Fidel, 2013). Item 24 of the Communication factor ('It is easy for me to express my feelings') cross-loaded on the Empathy factor at 0.45; Item 12 of the Empathy factor ('I feel happy when I see that my friends are happy') cross-loaded on the Communication factor at 0.40; Item 7 of the Communication factor ('I ask for help if I need') cross loaded on the Assertion factor at 0.43; Item 6 ('I feel comfortable with my friends'), Item 33 ('I make friends easily') and Item 28 ('I feel my friends do not like me') of the Communication factor cross-loaded on the Cooperation factor at 0.37, 0.41 and 0.36, respectively. Item 13 of the Self Control factor ('I feel lonely') at 0.56 and Item 5 of the Empathy factor ('I'm afraid to try new things') at 0.63 deleted due to loaded onto unrelated factors.

A review of the modification indices indicated that error terms corresponding to C-1 (Communication-1) and C-2 (Communication-2) were correlated. Therefore, the two error terms were allowed to covary freely in the revised model. The fit of the revised model was satisfactory using CFA ( $\chi^2 = 963.61$ ,  $df = 186$ ,  $p < 0.001$ ,  $CFI = 0.941$ ,  $NFI = 0.914$ ,  $GFI = 0.891$ ,  $RMSEA = 0.074$ ,  $RMR = 0.018$ ) (as a result of the modification indices reported in Appendix A and see Appendix B for ECSSM items).

Finally, paired sample analysis was used to ensure that the social skills of the two samples (morning classes and afternoon classes) were equivalent. Paired sample analysis results showed that there was no significant correlation between the two groups ( $SD = 11.42$ ;  $t = 0.85$ ;  $\text{Sig.} = 0.39$ ).

## 3.4 | Child and Youth Resilience Measure-Revised

Children's level of resilience was measured via direct assessment using a three-point CYRM-R (Jefferies et al., 2018; Resilience Research Centre, 2018). The measure consists of 17 items that measure personal resilience (e.g. 'Is doing well in school important to you?', 'Do you talk to your family/caregiver(s) about how you feel?', 'Do you feel you fit in with other children?') and caregiver/relational resilience (e.g. 'Are you treated fairly?', 'Do you have chances to show others that you are growing up and can do things by yourself?'). The scores in these subscales are summarized into a total score that reflects overall individual resilience score. The original two-factor three-point Likert measure version of the CYRM-R was translated into Turkish to begin the cultural adaptation process. Following the recommendations of the International Test Commission (2010), the English version of the mbdud j Turkish-speaking Syrian refugee children, the Turkish version of the CYRM-R was tested by the Red Crescent with 76 Syrian refugee children ( $M_{\text{age}} = 5.84$ ). During the pilot test, the children did not raise questions about the items, indicating that the items on the measure were understandable and age appropriate. The Turkish translation of the CYRM-R can be retrieved from the Resilience Research Centre's website (<https://cyrm.resilienceresearch.org>).

### 3.4.1 | Phase 1: CYRM-R confirmatory factor analysis

The factor structure of the Turkish version of the CYRM-R was evaluated using CFA with the AMOS statistical package version 25. For the CFA, data was collected from 300 Syrian refugee children who participated in the ECSSM development study (Phase 1). First, the Kaiser–Meyer–Olkin measure of sampling was calculated, obtaining a score of 0.834 ( $p < 0.01$ ). That is considered appropriate for the factorial analysis (Kaiser & Rice, 1974). After confirming that the sample was suitable for analysis at the latent factor level, construct validity of the Turkish version of the

measure was examined. The modification indices showed that there was a correlated error term between the items in the Intra/Intrapersonal sub-dimension (It-2 and It-3; It-8 and It-9) and the Caregiver sub-dimension (It-6 and It-7). The model fit was improved after the error terms were allowed to be correlated. The two factor model showed acceptable fit with the data ( $\chi^2 = 122.449$ ,  $p < 0.01$  CFI = 0.908, NFI = 0.829, GFI = 0.938, RMSEA = 0.065, RMR = 0.038). The results of the study indicate that the goodness of fit index values for the measure is overall acceptable. To test the reliability of the measure, Cronbach's alpha for this study was calculated and found to be 0.837 (see Appendix C for modification indices of the CFA results).

### 3.4.2 | Phase 2: Administration of the CYRM-R

To examine the moderating effects of risk and protective factors on refugee children's social skills and resilience, the CYRM-R was also administered to the 226 refugee children (see Table 1 for more details) who participated in the ECSSM CFA study.

## 3.5 | Procedure

Before the current study's data collection began (Phases 1 and 2), a pilot study was necessary (Cha et al., 2007) as it helped the research team ensure that refugee children living in a refugee camp understood all questions in the both ECSSM and CYRM-R. A pilot sample of 30 refugee children (50% female,  $M_{\text{age}} = 5.96$ ) were able to understand and answer all questions from the measures. After the pilot study, the refugee children participating in Phase 1 and Phase 2 were selected from a group of children enrolled in preschool classrooms at a Syrian refugee camp using convenience sampling. Permission and socio-demographic information forms were distributed to families via teachers and the school director. Subsequently, parents provided informed consent and completed socio-demographic forms for their children (response rate was 97%,  $N = 526$ ). Both measures were administered individually during school hours in a quiet separate area.

The measures' items were read out loud to each child, giving them time to answer. Instead of administering the two scales at the same time, the second scale (CYRM-R) was applied to children at intervals of 2–3 days, thus preventing missing data. Data collection lasted approximately 30–40 min total over the two administration periods (see Table 1).

## 3.6 | Statistical analysis

The results are presented in three sections. First, we report descriptive statistics for sample characteristics. Second, correlations for all variables are reported to examine bivariate relationships. Lastly, for moderation analysis (model 1), SPSS version 24.0 and PROCESS version 3.4 macro for SPSS were used to analyse the data (Hayes, 2018). Three moderation tests were conducted with 5000 bootstraps to examine whether school attendance, length of time spent in a refugee camp, and parental education level influenced the direction and/or strength of associations between resilience and social skills.

# 4 | RESULTS

## 4.1 | Sample characteristics

A total of 526 participants completed both measures. Participants had a mean age of 5.79 years ( $SD = .69$ , age range=5–7 years; 56.3% female). The majority of participants had been living in the refugee camp for 2 years or



more ( $n = 403$ , 76.6%). Most of the participants (77.0%) had attended preschool education for less than 1 year. One third of mothers indicated that high school ( $n = 173$ , 32.9%) was their highest level of education; half of all fathers indicated that primary school ( $n = 263$ , 50.0%) was their highest level of education. See Table 1 for an overview of the sample characteristics.

Based on the previous studies, father and mother education levels were combined and we set up two dummy (categorical) variables as '1' (i.e. at least one parent university education) or '0' (i.e. both parents less than university education) (Cabello et al., 2017; Gebremariam et al., 2017). Results for bivariate relationships between the independent, moderating, and dependent variables are presented in Table 2. Findings show that children's resilience was correlated significantly and positively with social skills ( $r = 0.46$ ,  $p < 0.01$ ). A similar trend was found in the relationship between duration of school attendance and resilience ( $r = 0.72$ ,  $p < 0.01$ ). We also found that interaction effect of parental education level was positively associated with child's resilience ( $r = 0.49$ ,  $p < 0.01$ ). Time children spent in the refugee camp was significantly and negatively associated with resilience ( $r = -0.73$ ,  $p < 0.01$ ). There was no significant association between resilience and age. There was a positive and weak relationship between social skills and gender ( $r = 0.14$ ,  $p < 0.01$ ) with females showing more skills, although no significant association was found between gender and resilience.

## 4.2 | Moderation model

Model 1 of the PROCESS macro (Hayes, 2018) was employed to examine the moderation effect of parental education, time spent in a refugee camp, and duration of school attendance on the relationship between social skills and resilience. Moderator variables were added to the analysis. Parental education was dummy coded as 1 for at least one parent's has a university education or as 0 for both parents with less than a university education. Duration of school attendance was a categorical variable coded from 0 to 2 (0 for the 0–1 year to 2 for the more than 2 years), and the length of time spent in a refugee camp was coded as 0 to 2 (0 for more than 2 years, 1 for 1–2 years, and 2 for more than 2 years).

Based on the descriptive and correlation results reported above, in moderation analysis, independent variables were centred on their respective means to reduce multi-collinearity between the main effects and interaction terms, and to increase the interpretability of the interaction term coefficients (Cohen et al., 2013). We explored whether school attendance, parental education level, and the length of time spent in a refugee camp serve as categorical moderating factors between social skills and resilience. The results of our analysis indicated an association between the

**TABLE 2** Correlations among the study's variables ( $N = 526$ ).

Variable	1	2	3	4	5	6	7
1. Resilience	1.000						
2. Social skills	0.465**	1.000					
3. School attendance	0.726**	0.468**	1.000				
4. Length of time spent in a refugee camp	-0.730**	-0.464**	-0.943**	1.000			
5. Age	0.070	0.162	-0.006	-0.006	1.000		
6. Gender	0.083	0.145**	-0.103*	-0.103*	0.037	1.000	
7. Father education × Mother education	0.491**	0.020	0.316**	0.316**	0.026	0.088*	1.000

\* $p < 0.05$ ; \*\* $p < 0.01$ .

**TABLE 3** Regression model summary of school, refugee camp and parents' education level: A moderated model predicting resilience ( $N = 526$ ).

Predictors	<i>b</i> (CI)	SE <i>B</i>	<i>t</i>	<i>p</i>	<i>R</i> <sup>2</sup>
					0.82
Constant	18.5470 (15.8177, 21.2763)	1.3893	13.3499	0.000	
Social skills	.2642 (0.038, 0.073)	0.0306	8.6285	0.000	
Refugee camp	-0.4158 (-1.5890, 0.7574)	0.5972	-0.6963	0.000	
Refugee camp × Social skills	-0.0746 (-0.1012, -0.0480)	0.0135	-5.5137	0.000	
					0.81
Constant	16.3692 (12.1591, 20.5794)	2.1431	7.6381	0.000	
Social skills	0.3900 (0.3007, 0.4792)	0.0454	8.5837	0.000	
School	0.9304 (0.5798, 2.4406)	0.7687	1.2103	0.000	
School × Social skills	0.1252 (0.065, 0.112)	0.0166	7.5298	0.000	
					0.74
Constant	12.4717 (6.5509, 18.3925)	3.0139	4.1381	0.000	
Social skills	0.4229 (0.2971, 0.5486)	0.0640	6.6070	0.000	
Father × Mother education	3.7029 (0.5888, 6.8171)	1.5852	2.3360	0.000	
Social skills × (Father × Mother education)	0.2176 (0.1501, 0.2850)	0.0343	6.3377	0.000	

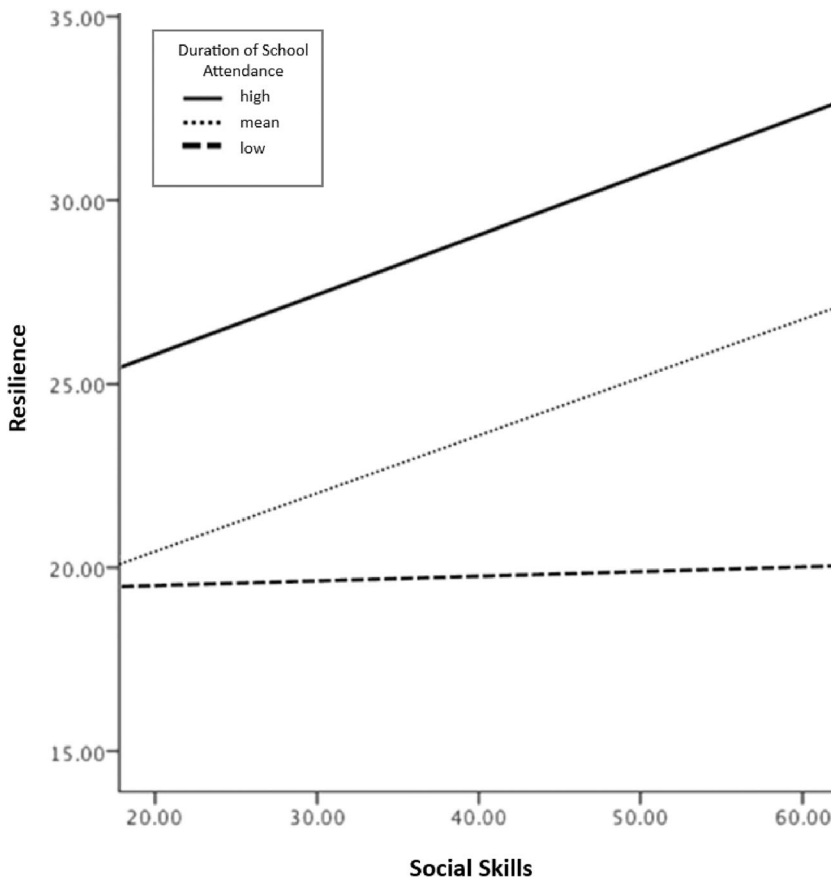
independent variable (social skills) and the moderating variables. We found that these variables were significantly associated ( $p < 0.001$ ). Moderation analysis can be found in Table 3, and is further illustrated in Figure 1.

As presented in Figure 2, a significant positive relationship was observed between social skills and resilience for the parental education with higher education levels ( $b = 0.205$ , 95% CI [0.144, 0.266],  $t = 6.582$ ,  $p < 0.01$ ) but not for parental education with lower educational qualifications ( $b = -0.12$ , 95% CI [-0.040, 0.015],  $t = -0.857$ ,  $p > 0.01$ ). High and low levels refer to dummy coded of parental education. The relationship between resilience and social skills is statistically significant at all three levels (0–1 year = high; medium = 1–2 years; more than 2 years = low) of time spent in a refugee camp. However, the moderating effect of time spent in a refugee camp was higher among refugee children who had spent less time in a camp ( $b = 0.143$ ,  $p < 0.001$ , 95% CI [0.120, 0.167]), compared to those with an average ( $b = .087$ ,  $p < 0.001$ , 95% CI [0.069, 0.106]), or a longer ( $b = .040$ ,  $p < 0.001$ , 95% CI [0.011, 0.069]) (see Figure 3).

Similarly, as presented in Figure 1, school attendance results show that the relationship between resilience and social skills also remained statistically significant and positive at all three points (more than 2 years = high; 1–2 years medium; 0–1 year = low), and the effect was also stronger among refugee children with longer durations of school attendance ( $b = 0.264$ ,  $p < 0.001$ , 95% CI [0.207, 0.322]), compared to those with an average attendance ( $b = 0.127$ ,  $p < 0.001$ , 95% CI [0.100, 0.154]), or lower school attendance ( $b = 0.039$ ,  $p < 0.001$ , 95% CI [0.019, 0.059]).

## 5 | DISCUSSION

While social skills have been associated with resilience in the past (Durlak et al., 2011; Masten, 1994), similar research among refugee children has been limited. Based on a social-ecological theory of resilience (Ungar, 2011), with emphasis on the quality of interaction between a child and their environment (Bronfenbrenner & Morris, 2006), the current study suggests that social skills are positively associated with resilience in refugee children, and are

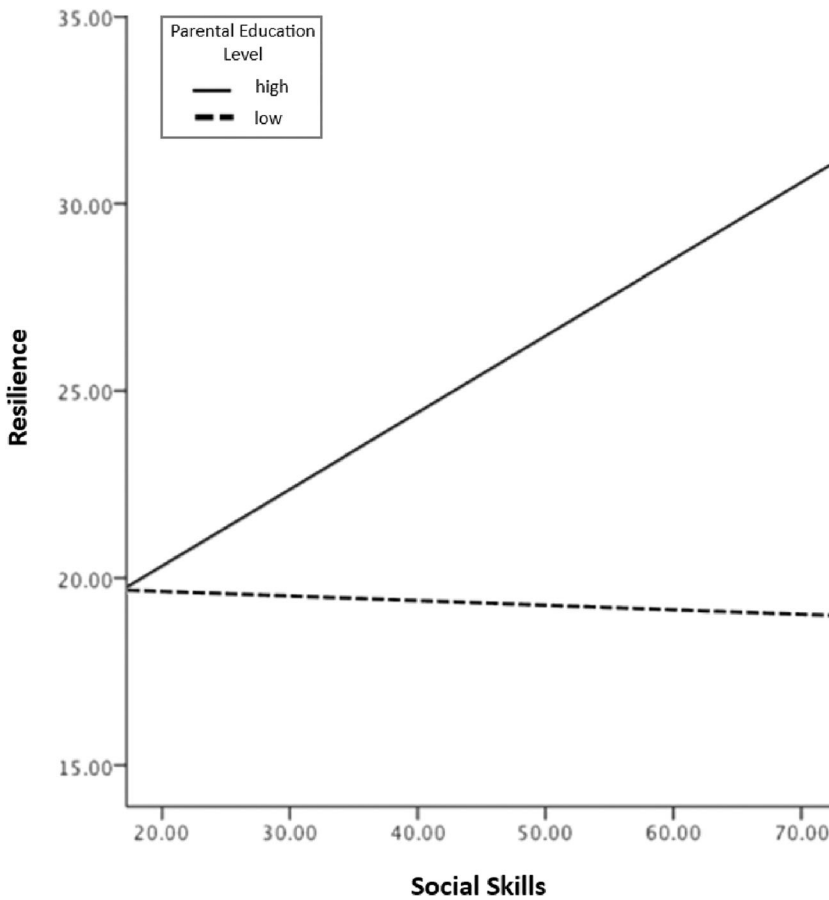


**FIGURE 1** Significant interaction between social skills and resilience at different levels of the moderator (duration of school attendance).

moderated by length of time spent in a refugee camp, school attendance, and level of parental education. As hypothesized, results showed that refugee children with higher levels of social skills in more stable and resourced environments were more likely to experience resilience. This is consistent with previous research (Fraser et al., 1999; Oshri et al., 2017) which suggests that a lack of resources inhibits children's development of social skills and their capacity to cope with atypical life stressors (i.e. resilience).

When we tested the moderating effects of length of time spent in a refugee camp on the relationship between children's social skills and resilience, we found as hypothesized, that this relationship was stronger among children with low levels of time spent in a refugee camp, compared to medium or high levels. As previously discussed, exposure to long-term adverse conditions (i.e. those associated with living in a refugee camps) pose significant risks to child development. When we compare our current findings with the results of Thabet and Vostanis's (2000) longitudinal study conducted with 7–12-year-old war-affected refugee children, most of whom were living in a refugee camp, we find evidence that children who have spent more time in a refugee camp have lower resilience as compared to peers with low levels of time spent in a refugee camp.

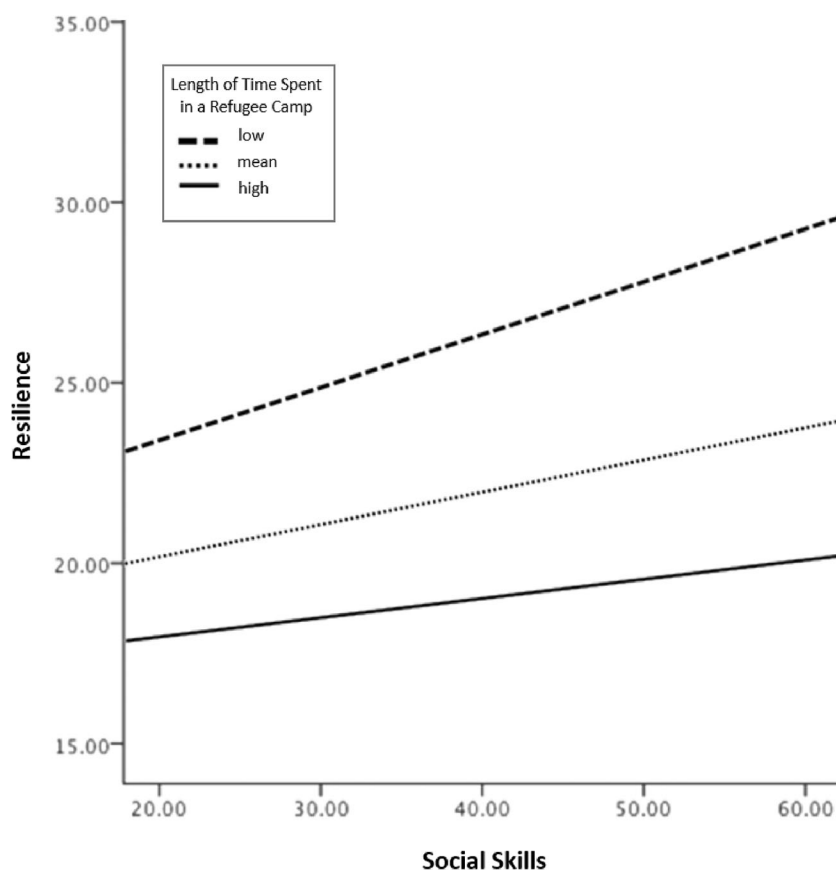
The results of the current study also show that preschool attendance moderates the relationship between social skills and resilience, with a stronger association among refugee children who have higher levels of school engagement. This relationship between education and resilience has been well-established, even for refugees (Fazel et al., 2016; Gatt et al., 2020; Hadfield et al., 2017; Panter-Brick et al., 2009). This is especially important given that



**FIGURE 2** Significant interaction between social skills and resilience at different levels of the moderator (parent education level).

the number of hours spent at school is typically linked to opportunities for social experiences that affect a child's progress (Rutter, 2012). Rousseau and Guzder (2008) suggest that schooling can also meet war-affected children's psychosocial needs, prevent emotional and behavioural problems, improve mental health, and serve as a protective bridge between refugee children and their new host communities. According to Hamilton (2004), the school acts as a gatekeeper that contributes to the overall wellbeing and integration of refugee children into their local community. Taken together, these previous studies show that opportunities to develop social skills are a core component of refugee children's resilience and is significantly associated with time spent in formal schooling.

In addition to the effects of refugee camps and schools on social skills development, our study provides associational evidence that refugee children whose parents have higher education levels have greater resilience than their peers whose parents have lower education, even when controlling for a child's level of social skills. Studies with refugee populations generally examine parental education levels as a determinant of socio-economic status. In the refugee context, however, higher levels of education are not significantly associated with employment and good income in the host country (Anderson, 2004; Montgomery, 1996). Nevertheless, increased levels of parental education may affect a child's development by providing access to psychosocial resources that would otherwise be unavailable in homes where the parents have less education. For example, a study with young refugee children in Denmark showed that mother's education positively predicted fewer psychological problems among children after arrival better than traumatic experiences before arrival (Montgomery, 2008). While these benefits are well-established (Gutman



**FIGURE 3** Significant interaction between social skills and resilience at different levels of the moderator (length of time spent in a refugee camp).

et al., 2010; Gutman & Feinstein, 2010; Kohen et al., 2002; Schoon et al., 2013) our study indicates parental education to be an important moderating factor related to refugee children's psychosocial development. Specifically, our findings suggest that: (a) parental education is a moderating factor which influences the relationship between social skills and resilience; (b) a high level of parental education can be protective for younger children's resilience. Although there were gender differences regarding social skills, there were no differences in overall CYRM-R scores by gender. This is consistent with other studies that find that female and male refugee minors have similar resilience (Jensen et al., 2015; Mohwinkel et al., 2018; Wilson et al., 2021).

## 5.1 | Limitations and recommendation for future research

The direction of future research can be identified by addressing some limitations of the current study. First, given the cross-sectional nature of the data, causal mechanisms could not be established. The results are limited given that all data are based on children's self-report assessments which may also have led to biased reporting. Potential limitation of this investigation is the fact that all measures were collected during one-time period however, to capture the relationship between resilience and social skills more accurately; future research should use prospective, longitudinal designs and include objective measures. Results from the present study are also limited by the fact that the participants were Syrian refugee children between the ages of 5 and 7 enrolled in preschool and living in a refugee camp

and therefore may not be generalizable to other populations of refugee children. Furthermore, the research is limited by its lack of a comparison group from the host country, leading to the question of whether children's status as refugees was actually a risk factor, or if childhood risk is a common experience or children living both inside and outside camps in Turkey. Finally, while the current findings have provided a clear impetus to further examine the notion of resilience and social skills that extends beyond the refugee context, future studies should investigate the different types of risk or protective factors that may affect the strength of social skills and resilience.

## 6 | CONCLUSION

The current study investigates the association between social skills and resilience among refugee children, and the moderating roles of refugee camps, school attendance, and parental education levels. Informed by Ungar's social-ecological theory of resilience, our findings underline the notion that a high social skills score does not necessarily indicate resilience, but rather that resilience depends on a person's environmental resources and social supports to facilitate personal development. In other words, when you 'change an individual's access to those resources, you change the possible outcomes' (Ungar, 2019, p. 59). The current study uniquely examined the moderating roles of refugee camp, school, and parental education on the relationship between social skills and resilience among refugee children. This provides a new avenue to identify potential protective factors that may help to foster resilience in children living in a refugee camp.

## AUTHOR CONTRIBUTIONS

**Nilufer Kuru:** Formal analysis; methodology; writing – original draft; writing – review and editing. **Michael Ungar:** Methodology; supervision; validation; writing – original draft; writing – review and editing. **Berrin Akman:** Methodology; supervision.

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## PEER REVIEW

The peer review history for this article is available at <https://www.webofscience.com/api/gateway/wos/peer-review/10.1002/icd.2424>.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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APPENDIX A

See Figure A1.

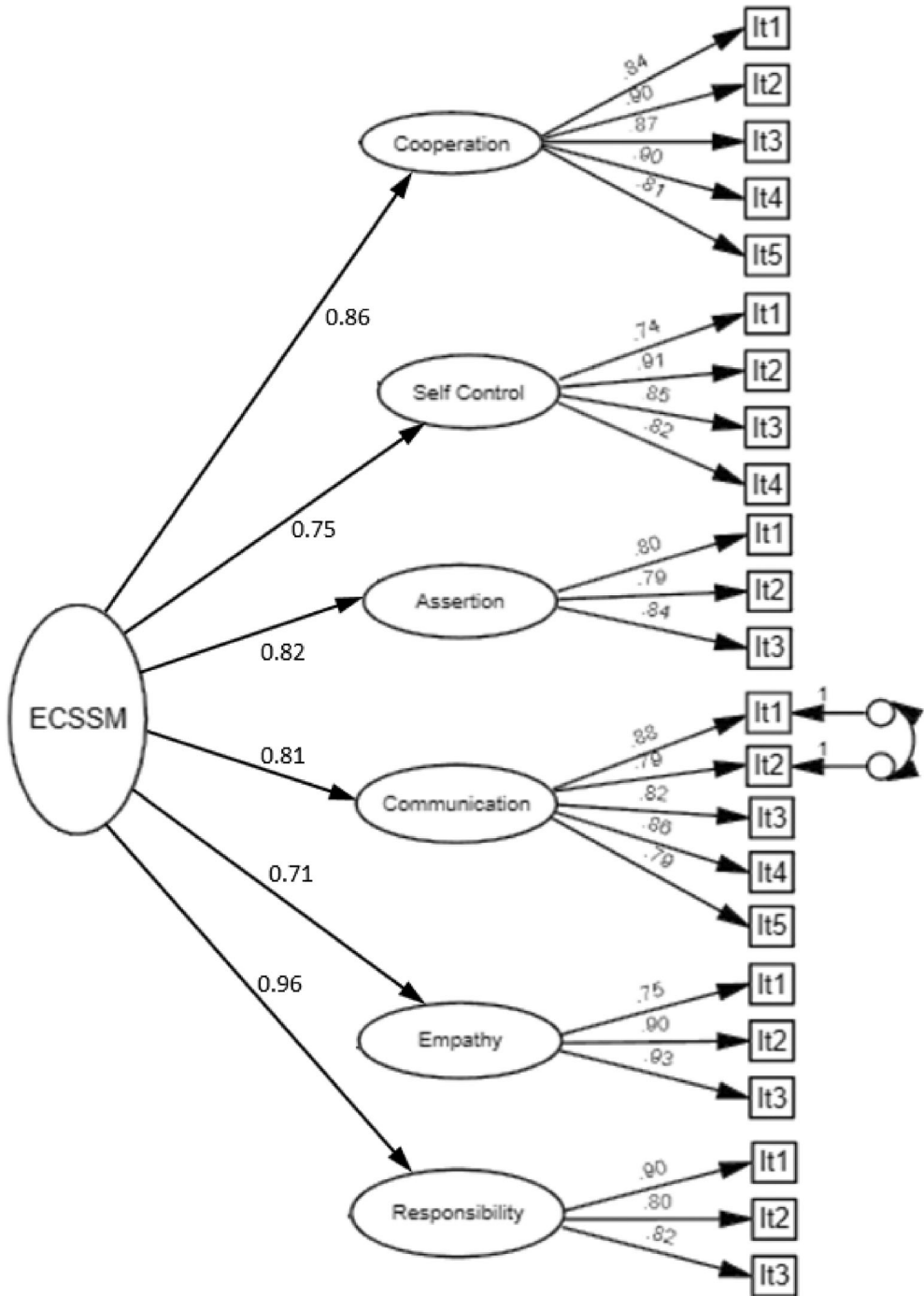


FIGURE A1 Confirmatory factor analysis model of ECSSM. ECSSM, Early Childhood Social Skill Measure; It (Item).

## APPENDIX B

See Table B1.

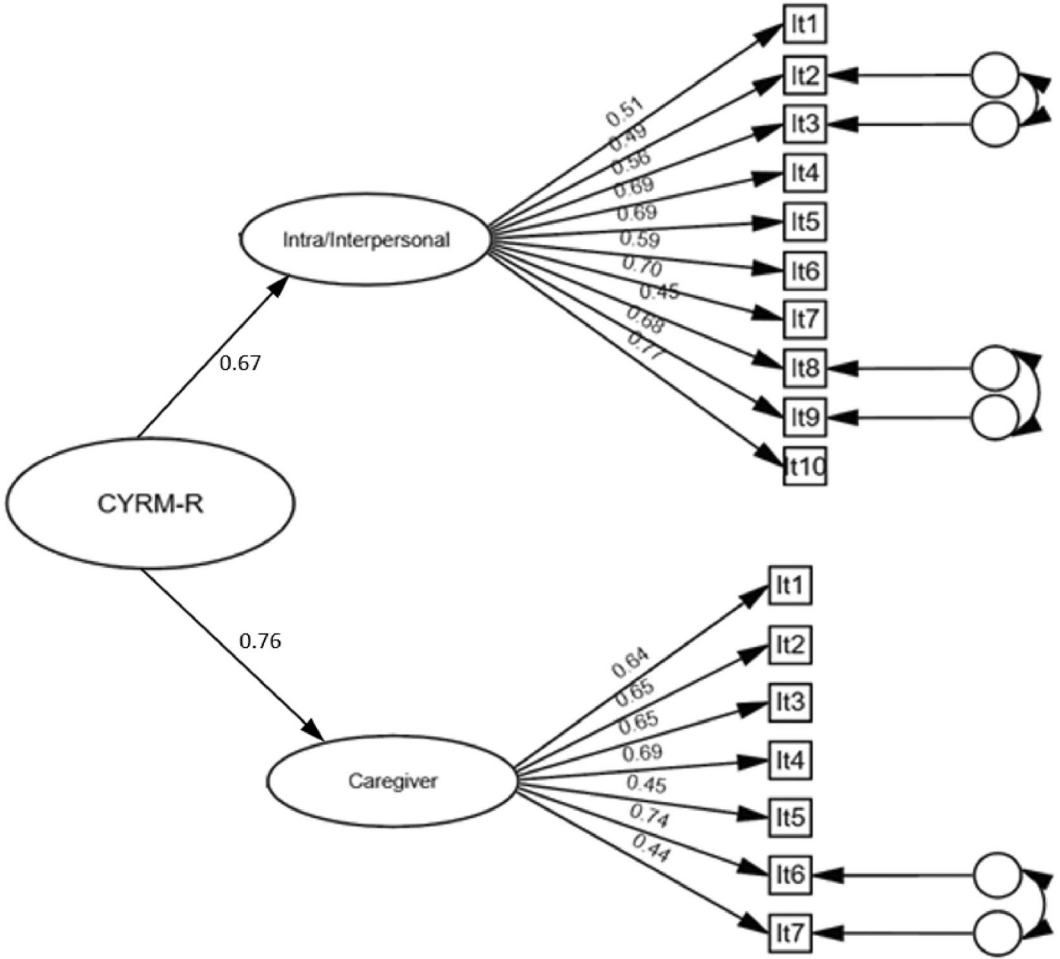
**TABLE B1** Confirmatory factor analysis of ECSSM.

Factors and items		FL	Cronbach's alpha (VE%)
Cooperation	It1: I participate in the classroom activities.	0.768	0.85
	It2: I share my toys and stuff with my friends.	0.850	82%
	It3: I have friends that I can play with.	0.813	
	It4: My friends invite me to their play.	0.836	
	It5: I help my friends when they ask.	0.778	
Empathy	It1: I try to understand the behaviour of my friends (Why he/she cries? Why he/she hurts another child?	0.745	0.78
	It2: I feel sad when my friend is mistreated.	0.850	74%
	It3: I try to understand the problems of older people.	0.729	
Communication	It1: I listen to what my teacher or parents say to me.	0.805	
	It2: I look at their faces while I am talking to my friends or someone.	0.721	0.77
	It3: I listen to someone until the end.	0.778	72%
	It4: I say thank you the someone when they do something nice or helpful for me.	0.795	
	It5: ask permission before I take other people's belongings.	0.768	
Self-Control	It1: I admit my mistake when I do something wrong.	0.688	0.75
	It2: I wait to ask for something from my friends or someone.	0.741	71%
	It3: I can follow the instructions.	0.741	
	It4: I can control myself when I get angry.	0.745	
Responsibility	It1: I follow the rules.	0.822	0.73
	It2: When I borrow my friend's toy, I give it back after my play is over.	0.774	70%
	It3: I can complete the tasks within the given time.	0.688	
Assertion	It1: When I do not understand something, I ask the my teacher or someone to clarify.	0.765	0.76
	It2: I can say no when something is not right for me.	0.756	71%
	It3: When my friend or someone behave in a wrong way, I tell her/him what is wrong (when she/he hurt someone or does not follow the rules).	0.774	

Abbreviations: FL, factor loadings; VE%, variance explained%.

APPENDIX C

See Figure C1.



**FIGURE C1** Confirmatory factor analysis model of CYRM-R. CYRM-R, Child and Youth Resilience Measure-Revised; It (Item).