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Socialising Children's Negative Emotions in Early Education: Adapting and Validating a Scale for Teachers

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This study aimed to adapt and examine the cross-cultural validity and reliability of the *Coping with Children's Negative Emotions Scale - Teacher Version* (CNNES-T), which assesses the levels of early childhood (EC) teachers' perception of their reactions towards young children's negative emotions. For this purpose, two studies were carried out. In Study-I, the scale is adapted using a team translation technique, and exploratory and confirmatory factor analyses conducted to investigate the factor structure of the adapted scale with a sample of 720 EC teachers. Study-I revealed that the scale's factor structure differed from the original version. In Study-II, the structure of the scale was analysed by considering internal consistency estimates and confirmed with an adequate model fit via confirmatory factor analysis with a sample of 358 EC teachers. Findings supported the two-factor model of CCNES-T in the Turkish context, consisting of 48 items with good internal consistency coefficients.

Keywords: *Coping with Children's Negative Emotions Scale* (CCNES-T), emotion socialisation, early childhood education, scale adaptation

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Introduction

Socialisation refers to how individuals are supported to participate in a social group by adopting its norms, roles, and values (Grusec & Hastings, 2007). Hence, the foundation of socialisation is based on daily interaction (Denham et al., 2015). The emotional aspect of socialisation might include difficulties in daily

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interactions, especially for young children. Socialisation of emotions may not be easy for young children during emotional crises as they struggle with identifying the triggers of emotions in unfamiliar situations or when the emotions of others differ from their emotional state (Hyson, 2004). E*motion socialisation* refers to the actions of socialisation agents that affect how children develop an understanding of emotions, including the ways to express and regulate them (Eisenberg et al., 1998). Emotion socialisation might be influenced by both interpersonal factors, including the beliefs and thoughts of others, and intrapersonal factors, namely within-child factors that influence socialisation, such as worldview, self-concept, and temperament (Rimé et al., 2020). Regardless of intrapersonal factors, interpersonal factors become more controllable as children reach emotional understanding and maturity. However, children do not develop emotional understanding all at once. As they grow, their social interactions expose them to a more extensive range of emotions and enhance their ability to recognise and understand the emotions of others (Shaffer, 2005). They also acquire a better understanding of the causes and functions of emotional displays (Shaffer, 2005). Thus, it is crucial for young children to learn to interact with others, communicate effectively, and build social relationships particularly during their preschool years when they experience social environments outside their homes.

The emotions of young children require the response of their social partners in the relevant context. In early learning settings, an early childhood (EC) educator is the closest adult to provide the necessary social-emotional support by strategically influencing and guiding them to regulate and express their emotions as an agent of Socialisation (Denham et al., 2012; Jennings & Greenberg, 2009). Since educators have qualities that play an influential role in the Socialisation of young children's emotions, such as providing engaging activities and exciting materials (Denham, 1998), they are crucial role models for young children. Thus, young children can easily be influenced by their teachers' reactions to emotional expressions (Ahn & Stifter, 2006; Denham et al., 2015). In addition, exposure to an important figure as an emotion profile can support children's emotional expressions and experiences (Denham et al., 2015; Valiente et al., 2004). Considering the contributions of EC educators to the socialisation of young children's emotions, it is essential to recognise and facilitate their key role as agents for the socialisation of emotions.

Evaluation of emotional socialisation of young children

Emotion socialisation has been generally examined from the parental perspective (e.g., Fabes et al., 1990; Magai, 1996; O'Neal & Magai, 2005). This underlines the importance of providing a measurement tool for EC teachers as well, who constitute a different but primary social agent in the lives of young children. To the authors' knowledge the only available measurement tool for EC teachers' socialisation in the Turkish context is *The Responses to Children's Emotions Questionnaire* adapted from O'Neal & Magai's work (2005) by Ersay (2015). This scale is focused on socialisation strategies such as reward, punishment, neglect, distraction and responses to specific emotions as sadness, anger, fear and overjoy. The particular focus of this scale on specific emotions may impose particular limitations on its use with young children who experience a broad range of emotions and have limited awareness and ability to express their feelings. Particularly, during emotional difficulties in early learning settings, the limited space of EC teachers to monitor children's emotions

may further constrain the administration of this scale. In addition to this scale, the availability of a more general and case-based scale could provide researchers in the field with greater flexibility in their investigations. Thus, providing another valid and reliable instrument may help to conduct more in-depth studies on the socialisation of emotion in early education environments. Hence, the current study aims to adapt and evaluate the validity and reliability of the *Coping with Children's Negative Emotions Scale–Teacher Version (CCNES-T)* in the Turkish context.

Coping with Children's Negative Emotions Scale–Teacher Version (CCNES-T)

The CCNES-T was initially developed by Fabes et al. (1990) to measure parents' reactions to children's negative emotions. Later, a teacher version of the scale was adapted with the same purpose by Fabes et al. (2000). The scale includes twelve cases presenting instances of negative emotions exhibited by children, each consisting of six items representing reactions to each case. Each item refers to a different subscale, namely "*punitive reactions" (PR)*, "*distress reactions" (DR)*, "*minimisation reactions" (MR)*, "*problem-focused reactions" (PFR)*, "*emotion-focused reactions" (EFR)*, and "*expressive encouragement" (EE)*. In total, the scale consists of 72 items, with responses varying from 1 (very unlikely) to 7 (very likely). Cronbach alpha scores for the subscales range from .70 (DR) to .85 (EE) (Forbes et al, 2000). In a further study, Fabes et al. (2002) conducted a construct validity analysis of the scale. The dimensions were grouped under two overarching subscales: Supportive Reactions and Non-Supportive Reactions.

The scale's parent and teacher versions were adapted and validated in different cultures. Various studies suggested that the scale is characterised by those two factors (supportive and non-supportive reactions) with strong internal consistency levels across diverse contexts (e.g., Breidokienė & Jusienė, 2014; Brown et al., 2015; Lins et al., 2017; Poulou & Denham, 2022). Although the scale's reliability had been studied in most of these studies, there is little research on the scale's construct validity or convergent validity. While Confirmatory Factor Analyses (CFA) of the scale is lacking, a few studies such as those in Lithuania (Breidokienė & Jusienė, 2014) and Greece (Poulou & Denham, 2022), used Exploratory Factor Analysis (EFA) to investigate the scale's factor structure.

The present study aims to adapt and validate CCNES-T to Turkish culture and language. Given the cross-cultural variability seen in earlier adaptations (e.g., Lins et al., 2017; Breidokienė & Jusienė, 2014; Poulou & Denham, 2022), particular attention was paid to the language and structural equivalence of the scale. In contrast to prior studies, the present study uses a more thorough and comprehensive process in the adaption and validation of the scale in the Turkish context. a "hybrid approach" was preferred, using Exploratory Factor Analysis (EFA) and Confirmatory Factor Analyses (CFA) at different stages of analysis (Matsunaga, 2010) along with an additional analysis to assess item parameters. Study I aimed to conduct the adaptation process of CCNES-T and ensure the content validity of the scale, while Study II sought to examine its psychometric structure and provide preliminary evidence for construct validity through CFA.

Study I: Cross-Cultural Adaptation of CCNES-T

Method

The Translation, Review, Adjudication, Pretesting, and Documentation (TRAPD) team translation model was preferred instead of the translation-back-translation method to adapt the scale to the Turkish context. In this technique, the translation and adaptation were conducted with diverse researchers working together (Harkness et al., 2010) to strengthen the instrument's content validity throughout the cultural transition process. In the *translation* step, the instrument was translated simultaneously and independently by two authors who speak both languages (English and Turkish). In the *review* step, translated texts are analysed by noting the disagreements and comparing them with the original text (Taner & Seferoğlu, 2016). In this step, the most critical implication is to agree that a localisation process is needed in addition to translation. Nevertheless, the scale includes items which do not reflect the target educational setting. For instance, in the item below, "nurse's office" was not relevant and had to be contextualised by considering the intended educational context.

Original: "If my student is afraid of injections and becomes quite shaky and teary while waiting for his/her turn to get a shot at the nurse's office, I would:"

Adapted: "If my student is waiting for his/her turn to be vaccinated because s/he is afraid of needles, trembling and crying, I would:"

This difference from the original scale, highlights the necessity of ensuring conceptual equivalence within the measurement tool across both the original and target languages, as well as considering factors of time and context (Epstein et al., 2015). Therefore, addressing potential translation challenges and emphasising the cross-cultural adaptation process was crucial at this stage (Gjersing et al., 2010).

In the *Adjudication* step, the adjudicator evaluated all texts and made the final suggestions on possible translation options (Dörnyei & Taguchi, 2009) by considering common points, disagreements, and the independent translations. This first draft was sent to three EC field experts for their feedback. The translators and the adjudicator then developed a second draft on the basis of the field experts' feedback. The final draft was sent to English and Turkish language experts respectively, together with the original version of the scale. The scale was subsequently administered to three EC teachers to ensure word accuracy and face/content validity. As a last step, a *Pretest* was conducted to ensure the clarity, understandability, and appropriateness of the item expressions and the instrument's factor and psychometric structure through the collected data. The whole process was saved as a part of the *Documentation* step (Taner & Seferoğlu, 2016) (See Figure 1).

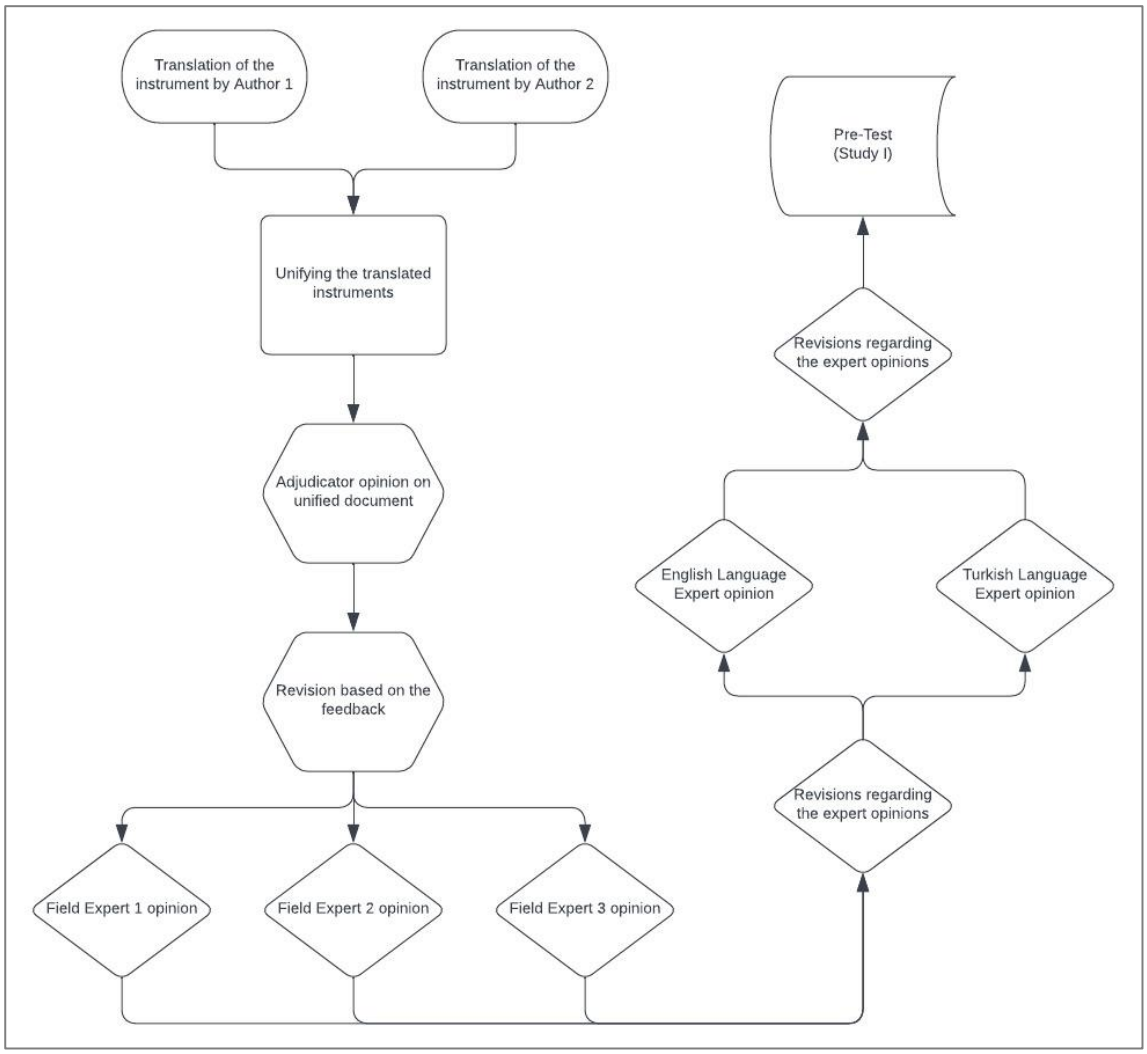
Sample and Data Collection

The data was collected online including a consent form, a demographic information form, and the CCNES-T. All schools in the accessible population were reached via phone, and information regarding the study was shared with the school administration. The participants in Study I were 788 EC teachers from two different cities in Turkiye. Most of the participants were female (93%, n_1=360). Considering the EC teachers' population distribution in Turkiye (2023), the sample was representative. Of the participants, 89.2% had bachelor's degrees. The participants had 10.86 (*SD*=6.956) years of experience, on average ranging from 0 to 37 years.

The study was approved by the Human Research Ethics Committee of a public university in Turkiye, the Ministry of National Education, and the schools'/institutions' administration.

Figure 1

Flow Diagram of CCNES-T Adaptation Process



Data Analysis

Exploratory and confirmatory factor analysis was carried out to examine the scale's factorial structure in the Turkish setting since this was different from its original structure in different educational settings (e.g., Lins et al., 2017; Poulou & Denham, 2022). The sample (n=720) was randomly split into two independent subsamples of 360 participants. Since having a sufficiently large sample size is crucial for reliably calculating correlations (Tabachnick & Fidell, 2013), a minimum of 5 to 10 participants per item is required for the study (Bryman & Cramer, 2001; Gorsuch, 2015). Also, the sample size's adequacy was evaluated as good for sample sizes greater than 300 (Comrey & Lee, 1992; Field, 2013). CCNES-T contained 72 items, with 5 participants for each item and thus a sample of 360 was admissible within the scope of Study I. Before performing EFA,

the dataset was screened for missing data and outliers. Then, the data were checked in terms of univariate and multivariate normality, and linearity as testing assumptions for EFA (Costello & Osborne, 2005). The dataset did not meet the normality assumption. To compensate for this violation, Principal Axis Factoring was used as the extraction method for EFA (Costello & Osborne, 2005) since this method offers the benefit of not requiring any distributional presumptions (Fabrigar et al., 1999).

CFA was conducted with the second random sample reserved (n_2=360) to examine the fit of factor solutions produced by EFA. Considering the non-normal factor indicators without missing data, the sample size was determined as 220 to achieve a power level of .95 in the analysis (Muthén & Muthén, 2002). The sample size for the CFA phase of Study I met the requirement (n_2=360). Violation of normality assumption was compensated by employing Robust Maximum Likelihood. Multicollinearity assumption was then checked between items (Brown, 2015), indicating that were several multicollinear items. The fit of CFA model was evaluated using various cut-off criteria, including the chi-square (χ^2), Comparative Fit Index (CFI), Goodnessof Fit Index (GFI), Tucker-Lewis Index (TLI), Standardised Root Mean Square Residual (SRMR), and Root Mean Square Error of Approximation (RMSEA). Threshold values indicating good model fit include chi-square <5, CFI>.90, GFI >.90, SRMR<.08, and RMSEA<.06 (Hooper et al., 2008; Hu & Bentler, 1999).

Results

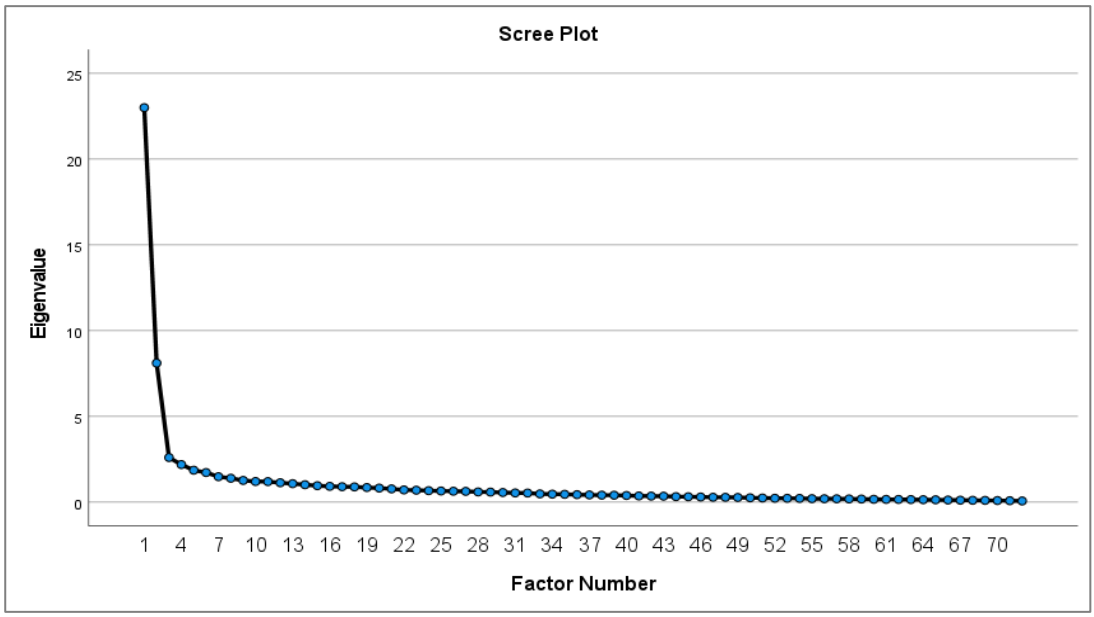
To ensure sampling adequacy, the Kaiser–Meyer–Olkin measure of sampling adequacy (KMO) was also checked (Kaiser, 1970). Kaiser (1974) refers to values greater than .90 as marvelous, and the KMO value was .95 for this study. The strength of relationships among the items was then examined using Bartlett's Test of Sphericity (χ^2=19247.50, df=2556, p<.05), indicating the appropriateness of the correlation matrix for factor analysis (Field, 2013). EFA was primarily carried out employing an oblique rotation (direct oblimin) because constructs in social sciences are generally very likely to correlate with one another (Field, 2013). However, when the results were examined, the factor correlation matrix revealed correlations lower than .32, implying that varimax rotation could be a better option (Tabachnick & Fidell, 2013). Additionally, given the opposing nature of the factors, varimax rotation was considered a more suitable option to support the theoretical distinctions between constructs (Tabachnick & Fidell, 2013). EFA was thus carried out using principal axis factoring extraction and varimax rotation with 72 items and 360 participants.

Even though the original version of the scale includes six factors, the construct validity study by the scale developers indicated two factors (Fabes et al., 2002), and further studies mostly confirmed the two-factor model (Breidokienė & Jusienė, 2014; Jeon et al., 2016; Lins et al., 2017; Poulou & Denham, 2022). In addition, scree plot (Cattell, 1966) and parallel analysis (Watkins, 2006) methods for factor retention were also considered. According to the scree plot, the first two factors explained significantly more variation than the others (See Figure 2). Since the methods used in factor retention are subjective, parallel analysis was preferred to diversify the retaining methods (Pituch & Stevens, 2015). Parallel analysis was performed using Monte Carlo software (Watkins, 2006) by generating 500 replications of same sized random data. In the parallel analysis results, six possible factors were indicated. To reach a final decision, two-factor and six-factor fixed

extraction were conducted with EFA respectively, because of the unstable factor numbers obtained from the alternative techniques.

Figure 2

Scree Plot of CCNES-T



In the six-factor fixed extraction EFA results, the communality values of 15 items were observed to be low (<.32) (Tabachnick & Fidell, 2013). In the rotated factor matrix, four items did not load to any factor and eight items were cross-loading (Costello & Osborne, 2005), while four items indicated lower loading than the threshold of .40 (Gorsuch, 2015). Also, it was observed that EFR, EE, and PFR items tended to create a factor, while PR, MR, and DR items tended to create another one (Table I).

The two-factor fixed extraction was examined through EFA to ensure that the factor number for the adapted scale was in line with the scree plot, previous studies, and the validation study of Fabes et al. (2002). According to the results, the communality values of 26 items, observed low (<.32) (Tabachnick & Fidell, 2013). In the rotated factor matrix, two items did not lead to any factor (Table I). Furthermore, two items were cross-loading (Costello & Osborne, 2005), and seven items indicated lower loading than the threshold of .40 (Gorsuch, 2015).

As a result of the analyses of factor retention, it was observed that CCNES-T might consist of two main factors matching with the results of the scree plot, similar studies in the literature, and the validation study of Fabes et al. (2002), indicating an improvement in factor loading despite the decrease in communality values in two-factor fixed extraction. Moreover, it was observed that items with low communality values mostly belonged to the distress reactions subscale. Thus, the DR subscale might not be suitable for the practical application of the instrument in the Turkish context, as seen in the similar study on the parent version of CCNES by Altan-Aytun et al., (2013).

Table I

Rotated Factor Matrix of CCNES-T

Items	Components		Communality
	SR	NSR	
7B – SR	.88		.78
12B – SR	.83		.69
7A – SR	.83		.68
9D – SR	.82		.67
6F – SR	.81		.66
4B – SR	.81		.65
10E – SR	.80		.64
12A – SR	.80		.64
5B – SR	.79		.63
4F – SR	.78		.61
11F – SR	.78		.61
11D – SR	.77		.60
2D – SR	.77		.60
9F – SR	.75		.57
1E – SR	.74		.57
6E – SR	.72		.52
1C – SR	.71		.52
8A – SR	.69		.48
10C – SR	.69		.48
3E – SR	.67		.45
3D – SR	.61		.38
2B – SR	.58		.35
5A – SR	.57		.35
8B – SR	.56		.31
7D – NSR		.80	.66
9C – NSR		.79	.63
10B – NSR		.74	.55
4C – NSR		.66	.44
9E – NSR		.66	.44
6B – NSR		.65	.43
5C – NSR		.64	.42
12F – NSR		.64	.43
5D – NSR		.64	.40
3B – NSR		.63	.40
11A – NSR		.63	.40
7E – NSR		.63	.39
2F – NSR		.63	.39
11C – NSR		.62	.39
2C – NSR		.61	.37
8D – NSR		.60	.36
6D – NSR		.58	.34
8E – NSR		.57	.32
4A – NSR		.51	.26
10F – NSR		.50	.27
12E – NSR		.48	.24
1D – NSR		.44	.20
3F - NSR		.34	.15
1A – NSR		.513	.07

Note. *** Rotation converged in 3 iterations**
**** Reverse items**

Finally, CFA was conducted to verify the results obtained in EFA and to decide on the factor structure of CCNES-T. With the original six-factor structure model, the CFA model failed, and the model did not converge. Thus, the alternative two-factor model detected in EFA was analysed to explore the origin of the poor fit of the results with the original model. In the two-factor model CFA, results showed, again, a poor model fit (χ^2=7247.86, *df*=2209, *p*=0.00, RMSEA=0.08, SRMR=0.14, TLI=0.65, CFI=0.66, GFI=0.56) (Jöreskog & Sörbom, 2018; Tabachnick & Fidell, 2013; Thompson, 2004). In the goodness of fit indices, χ^2/df was equal to 3.28, indicating a moderate fit (Sümer, 2000). Furthermore, in the model some observed variables, especially those from the original DR subscale, did not load adequately onto the latent construct, and the error variances of ten items exceeded 0.90, a significant threshold (Brown, 2015). As a result, the issues identified in EFA were confirmed, leading to the conclusion that the problematic items needed to be revised. The items found to disrupt the factorial structure of the scale were thus revised by considering their factor loadings on EFA, the modification indices, their high impact on χ^2/df, and high error variances on CFA. Additionally, the multicollinear items were also considered during revisions. Two field experts' opinions were also considered in the revision, along with the analysis results. After the revision, Study II was conducted to ensure the item revisions, the psychometric structure, and preliminary validation of the instrument.

Study II: Replication of Factor Structure and Validation of CCNES-T

Method

The participants in Study II were 394 EC teachers, with data collected by the same procedure used in Study I. 95.8% of the participants were female, and 84.4% had bachelor's degrees. The participants had an average of 12.72 (*SD*=7.137) years of experience, ranging from 0 to 33 years. The consistency between the samples of the two studies was indicated in descriptive analysis.

Study II was aimed to test the revisions made in Study I, especially the DR items which were not working well, and to provide evidence for the construct validity of the final version of the scale. Accordingly, a Confirmatory Factor Analysis (CFA) was conducted to provide evidence for construct validity. The data were checked for testing assumptions to evaluate the convenience of data and identify any violations while ensuring the accuracy of the analyses (Tabachnick & Fidell, 2013). In this section we will present only.

Results

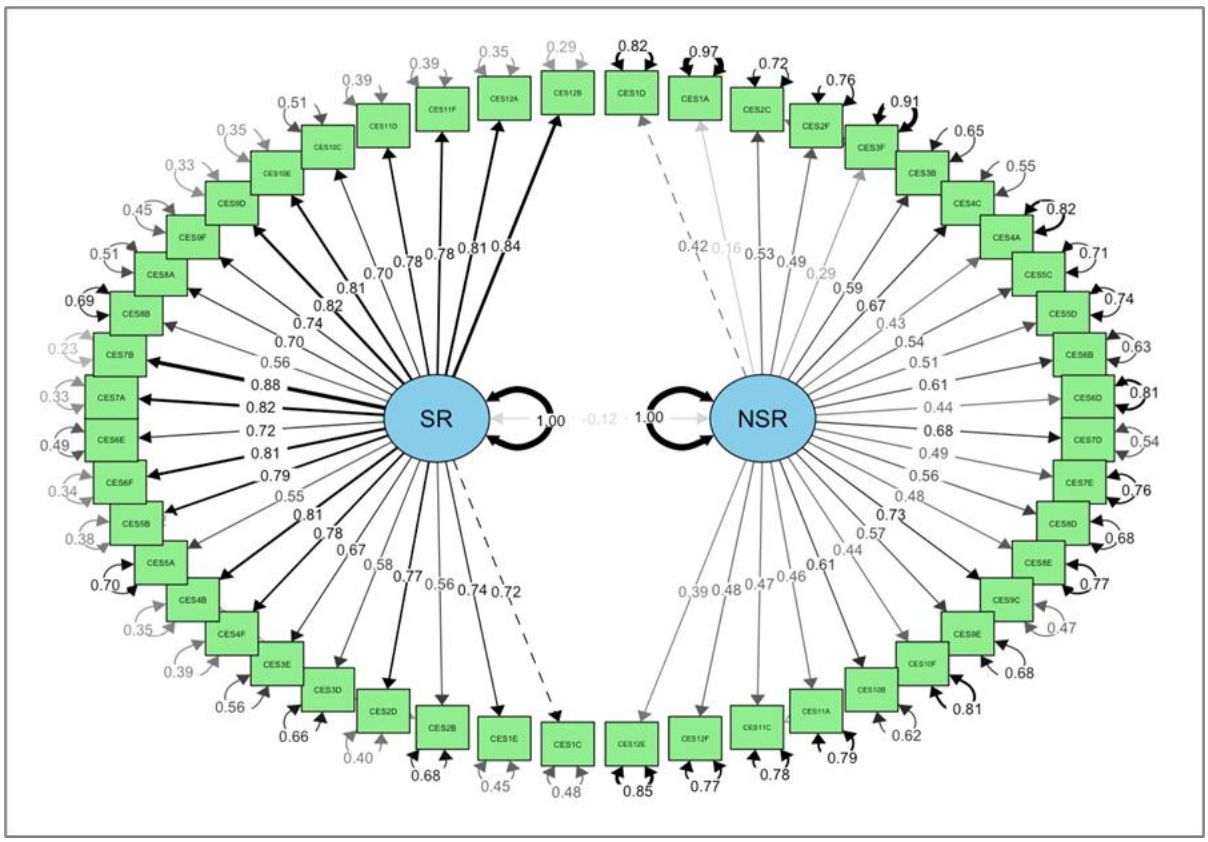
CFA was conducted by employing Robust Maximum Likelihood estimation. The two-factor CFA results without the distress subscale showed a compatible model fit (χ2=2955.88, *df*=1079, p=0.00, RMSEA=0.06, SRMR=0.07, TLI=0.82, CFI=0.82, GFI=0.72). Regarding the goodness-of-fit indices, it was noted that χ2/df equals 2.74, which was a moderate fit (Sümer, 2000). As a result, the goodness of fit indices demonstrated that the scale was acceptable regarding the overall interpretation of the index. Furthermore, all the observed variables adequately loaded on the latent variable, and there was only one observed variable (1A) whose error variances were above 0.90.

Modification indices suggested that the model fit could be improved by allowing some covariation

among item pairs' errors as minor revisions by justifying the underlined theoretical explanation (Brown, 2015; Loehlin, 2004). The model fit indices showed the value of GFI were found to be less than .90. As an alternative to chi-square, these indices show to what extent the model detects the covariance matrix in the sample and the sample variance explained by the model (Cokluk et al., 2021). It has been stated that this indices give more accurate results in large samples as they are susceptible to sample size (Tabachnick & Fidell, 2013). The fact that the current sample had only a sufficient sample size but not a very large one could explain the inadequacy of the values. Although each fit index reflects a different aspect of the scale's structure, it is advised to adopt a holistic approach by using a set of indices in evaluating the fit of the models (Tabachnick & Fidell, 2013). Thus, the goodness of fit indices indicated that the scale was acceptable based on the overall interpretation of indices. As a result, the CFA results supported the two-factor structure retained by EFA.

Figure 3

CFA Model for CCNES-T



Internal Consistency Estimates and Item Statistics

Two subscales have good internal consistency reliability estimates with Cronbach's α values of .95 (SR) and .91 (NSR) respectively. All the scores were above the cut-off alpha level of .80 (Field, 2013); thus, the subscales were considered reliable. In the item statistics, it was observed that the items generally have raw, standardised, and corrected correlation scores greater than .70, indicating consistency in their respective

subscales (Hair et al., 2010). The high dropped correlation values also suggest that these items have a strong ability to represent their corresponding subscale.

Discussion

The present study adapted CCNES-T and investigated its preliminary cross-cultural validity and reliability. The findings revealed that CCNES-T indicated a two-factor structured scale within the Turkish context. The factors were named in line with the previous studies as *Supportive Reactions* and *Non-Supportive Reactions*. Both subscales indicated acceptable construct validity and internal consistency.

Factor Structure

The proposed two-factor structure of CCNES-T is considerably similar to the results of its adaptation in Greece (Poulou & Denham, 2022), which has socio-cultural similarities with Turkiye (Hofstede, 2001) and this contributes to the validity and reliability of the current study. Moreover, the DR subscale, which was also omitted in the Turkish adaptation of the parent version (Yağmurlu & Altan, 2010), caused significant incompatibility and structural problems as it was different from other subscales both in terms of question structures and theoretical approach. This subscale reflects the adults' internal distress rather than what they actually do, in contrast to the other items on the scale. Its primary purpose is to serve as a potential mediator when the adult becomes distressed in response to children's negative emotions, and it increases the chances of their non-supportive reactions (Fabes et al., 2002). Thus, not being grouped under the Non-Supportive Reactions subscale is consistent with how the scale was designed, and the omission of DR subscale contributed to the validity and reliability of CCNES-T. Furthermore, similar examples in the literature emphasise the necessity of this step to strengthen the instrument's factor structure.

Validity Issues

The TRAPD team translation method was preferred to strengthen the content validity of the scale. The different roles undertaken by the researchers with different expertise involved in team translation contribute to the validity and reliability of the instrument. In addition, powerful statistical methods, such as EFA and CFA, were employed to contribute to the instrument's construct validity. On the other hand, convergent validity, which includes correlation or prediction analyses with other validated instruments measuring the same construct, was not preferred in the present study due to the large number of items contained in CCNES-T. Including additional instruments in each sub-dimension in the data collection process was likely to cause participants to drop out of the study or give answers that could negatively affect data.

Limitations

In future studies, if data are collected from more extensive and diverse samples, accounting for experience and age demographics and ensuring a balanced distribution of participants, the relevant variables can be considered a comparison variable. Additionally, measurement invariance across different samples can be evaluated.

However, within the scope of the present validity study, only data on experience and gender demographics were collected from these variables, and the invariance of the measurement was not checked, in view of the lack of demographic information and the possibility that the evaluation of experience independent of age was insufficient for robust conclusions.

Implications & Further Research

The adaptations of the CCNES-T in countries such as Greece (Poulou & Denham, 2022), Lithuania (Breidokienė & Jusienė, 2014), and Turkiye, located in Eastern Europe, as well as in Brazil in South America (Lins et al., 2017), have resulted in a structure composed of two subscales instead of the six subscales initially proposed. This might be explained by these countries' more collectivist socio-cultural structure compared to other Western countries (Hofstede, 2001). Furthermore, this finding will shed light on the adaptation, development, and use of similar instruments in future studies conducted on similar populations. Additionally, the present study emphasises the importance of considering different parameters in exploring the socialisation of young children's emotions, such as interdependence (Minkov & Kaasa, 2022).

The comprehensive EFA conducted in this study revealed that items 1A and 3F distorted the instrument's factor structure, as they either did not load on any sub-dimension or demonstrated low loading scores. Although the present study does not advocate for the removal of these items to preserve the overall structure of the instrument, it is essential to approach these items with caution in future applications and across different samples. In the future, testing items 1A and 3F, which were observed to have a negative effect on the internal consistency and validity of the instrument in all the analyses, with different samples may provide more information about the reliability and validity of the scale. This may necessitate revisions to the relevant items.

A detailed examination of the CFA findings reveals several modification indices applied in the present study. While necessary modifications have been executed in the adapted version of these items, the original items may cause an increase in error variance due to the item-writing processes. Despite the modifications made by the structural adjustments proposed in the present study, it remains essential to reconsider the use and results of the relevant items in future research. Over time, the necessary changes can be implemented and may be required to enhance the instrument's validity.

Conclusion

The present study is an adaptation and validation study for a self-reported early childhood teacher scale to assess their reactions in early learning settings to socialisze children’s negative emotions. The scale has been adapted in terms of cultural and linguistic terms as well as construct validation through two consecutive studies. In the first study the CCNES-T was adapted to the Turkish linguistic and cultural structure in early childhood education, while the second study, in line with previous studies, provided evidence for a two-dimensional structure for the scale, unlike the original six-dimensional structure. The two dimensions have been named as supportive reactions and non-supportive reactions in accordance with the theoretical framework of the scale. The findings of the study indicate that the scale is valid and reliable for the relevant population.

Conflict of Interest

The authors report there are no competing interests to declare.

Author Note

This study was conducted as a part of the master's thesis of the corresponding author, Sabiha Üzüm, under the supervision of H. Özlen Demircan at Middle East Technical University. A part of this study was presented in Turkish at 8th Uluslararası Okul Öncesi Eğitim Kongresi with the abstract title of "Çocukların Olumsuz Duygularıyla Başa Çıkma Ölçeği - Öğretmen Ölçeği'nin (CCNES-T) Türkiye Bağlamında Kültürlerarası Uyarlaması ve Ön Geçerlik Çalışması".

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