

Assessing parents' self-efficacy beliefs before and during the COVID-19 pandemic in Greece

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The aim of the present study is to establish the psychometric properties of the Self-Efficacy for Parenting Tasks Index-Toddler Scale (SEPTI-TS) in the Greek educational context and to examine changes in parenting self-efficacy over time. The Short Form of SEPTI-TS was used to evaluate parents' self-efficacy on four different domains: nurturance, discipline, play and routine. A sample of 159 parents of children aged from 3 to 5 years completed an online survey at two time periods before and during the COVID-19 pandemic. Results supported the proposed SEPTI-TS dimensionality (comparative fit index = .905, root-mean-square error of approximation = .053, standardised root mean square residual = .055). The results showed that the average parenting self-efficacy scores regarding discipline, play and routine were lower than parenting self-efficacy scores of those domains before the COVID-19 pandemic. Results also indicated that parents feel high self-efficacy for play with their children, whereas they perceive low self-efficacy for children's discipline. Good practices are discussed to address new challenges to Greek parents.

Keywords: Parents' views; Self-efficacy; Parenting; COVID-19; Pandemic.

The COVID-19 (coronavirus disease 2019) was announced as a pandemic by World Health Organization on 11 March 2020. Many governments implemented measures to impede the rapid spread of coronavirus. The Greek government was one of the few governments that took strict measures early on in the outbreak. Some of those included suspending school lessons and business operations, imposing tough travelling regulations and encouraging physical distancing. Within the second week of March, an unprecedented lockdown was imposed nationwide which lasted until the end of May 2020.

Quarantine days had a severe impact on the daily routine of both individuals and family life. Recent studies showed that parents experienced a higher level of stress than non-parents during the COVID-19 pandemic (Russell et al., 2020). The Greek education system along with many others immediately shifted to distance learning. Meanwhile, parents took the exclusive responsibility of their offspring's upbringing, education and care. The combination of parents' workload, remote working or unemployment and full-time caregiving responsibilities resulted in significant stressful factors that had an impact on the overall well-being of families (Grigoropoulos, 2021; Morelli et al., 2020). Yet, little is known about

the parents' response to this adversity. It is, therefore, important to understand how parents perceive their parenting role and responsibilities undertaken during these challenges in the light of the current global health emergency and in the case of any future challenge to come.

Parents' self-efficacy during COVID-19 pandemic

Perceived self-efficacy has its roots in social cognitive theory and refers to "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3). In the parenting context, parents' self-efficacy (PSE) is described as one's judgement about their abilities to fulfil successfully the role of parent (Jones & Prinz, 2005). It is not what parents can do, but what parents perceive themselves to be able to do. Moreover, PSE refers to parents' sense of competence in various parenting tasks, for example, supporting the child's emotional needs, providing learning opportunities and promoting discipline through daily routines (Coleman & Karraker, 2003).

Coleman and Karraker (2000, 2003) developed two measures to evaluate parenting self-efficacy. These

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We have greatly valued parents' participation in this research study.

measures refer to either toddlers or elementary school-age children. However, the Greek early childhood education and care (ECEC) system is split into two parts: (a) the child-care system, which includes children under 4 years of age, and (b) the kindergarten system which includes children from 4 to 6 years old. Based on the dichotomy of the Greek early years system, this study used the SEPTIS-TS in an effort to include parents' views from the whole spectrum of the Greek ECEC system.

Previous studies on parenting self-efficacy have found benefits for both parents and children (Albanese et al., 2019; Jones & Prinz, 2005). The broadly defined, high parenting self-efficacy has been linked with the quality of family life, parent-child relationship, child's well-being and development (Crnic & Ross, 2017). Parents with high levels of self-efficacy are more likely to use adequate parenting practices, which in turn contribute to a child's academic and socio-emotional development (Albanese et al., 2019). Contrary, parents who perceive low levels of self-efficacy are more likely to feel depression, anxiety and stress (Fang et al., 2021).

Bandura (1997) argued that self-efficacy is not a fixed personality trait, but a dynamic construct which is formed by an individual's experiences, interpretations and environmental influences. The expectation that parents could be efficacious is derived from multiple sources of input. Bandura (1997) proposed four sources of self-efficacy expectations: mastery experience, vicarious experience, verbal persuasion and physiological and emotional arousal. Mastery experience is the most authentic source of information, but the strength of all sources depends on the individual's judgement of the experience (Bandura, 1997). The COVID-19 pandemic can be considered a stressful environmental experience for many people (Morelli et al., 2020; Russell et al., 2020); therefore, a closer investigation of how it impacts on parenting self-efficacy is timely.

The present study

The purpose of this study is to establish the psychometric properties of the Greek version of the short form of Self-Efficacy for Parenting Tasks Index-Toddler Scale (SEPTI-TS), an efficacy instrument to prompt parents' reflection upon their performance on their parenting role. Furthermore, this short-term longitudinal study explores whether parenting self-efficacy changes in the context of the COVID-19 pandemic. This study has the following research questions: (a) Is the factorial structure of the Greek version of SEPTI-TS acceptable? (b) Are there significant differences in parenting self-efficacy in the periods of pre-COVID-19 and first lockdown? (c) Is parenting self-efficacy affected by parents' and children's age? In particular, we hypothesised that (a) the four subscales of SEPTIS-TS will be revealed, (b) parenting self-efficacy

will decrease after the first-lockdown period, compared with the period of pre-COVID-19 and (c) it will be affected by parents' and children's age.

METHOD

Participants

One hundred and fifty-nine Greek parents ($M_{\text{age}} = 34.8$ years, $SD_{\text{age}} = 4.79$, range 23–46 years) with their children ($M_{\text{age}} = 48.8$ months, $SD_{\text{age}} = 8.08$, range 36–63 months) from urban areas of the prefecture of Thessaloniki in Northern Greece took part in the survey. This study included only parents of typically developing children. Of the participants, 95% were mothers. Table 1 presents the participants' sociodemographic characteristics.

Measurement

Parenting self-efficacy

The short form of SEPTI-TS (van Rijen et al., 2014) was used to assess parenting self-efficacy. The original full scale is presented in Coleman and Karraker (2003) study. SEPTI-TS short form comprises of 26 items assessing four subscales of PSE: nurturance (seven items; e.g., "My child feels very loved by me"), discipline (six items; e.g., "I have trouble getting my child to listen to me"), play (seven items; e.g., "I am able to get actively involved in playing with my child") and routines (six items; e.g., "I have worked out a fairly regular morning routine with my toddler"). Responses were given on a 7-point Likert scale anchored by strongly disagree (1) to strongly agree (7). Previous studies demonstrated its psychometric properties in terms of internal consistency, face, concurrent and factorial validity (e.g., Liu et al., 2017).

The SEPTI-TS short form was translated into Greek, using the back-translation method. First, the author translated the scale into Greek, and then, a native speaker conducted a back-translation into English. Afterwards, the two versions were compared, and translation

TABLE 1
Demographic characteristics of Greek parents

Variables	Mother (N = 151)	Father (N = 8)
Employment status		
Working	100 (62.9%)	8 (5%)
Not Working	51 (32.1%)	—
Working place		
Remote working	74 (46.6%)	8 (5%)
Workplace	26 (16.4%)	—
Child's gender		
Girls	66 (41.5%)	4 (2.5%)
Boys	85 (53.5%)	4 (2.5%)

discrepancies were corrected. Following this procedure, the questionnaire was pretested with 10 parents, and minor changes were introduced based on parents' feedback.

Procedure

Pre-COVID-19 assessment (November 2019): Participants were recruited through kindergartens. In particular, teachers organised meetings with parents and within these meetings, the researcher had the opportunity to inform parents about the purpose of the study and asked them to voluntarily participate in the survey. Then, teachers sent consent forms at home and these were returned to the kindergartens via the children within 3 weeks. Once consent forms were obtained, six families were randomly selected from each classroom ($N = 27$). Participants were assured that their responses to the survey would be anonymous and would only be used for academic purposes. Following this procedure, parents received an invitation via email to participate in an online survey. This recruitment strategy produced a convenience sample of 162 parents.

First-lockdown assessment (April–May 2020): Parents who gave their consent at pre-assessment were included. Parents received a second invitation to participate in the online survey and their participation was voluntary again. Three parents decided to discontinue the study; thus, they were excluded from the data ($N = 159$).

All procedures involving human participants in this study were performed following the ethical standards of the Department of the Early Childhood Education and Care and with the 1964 Helsinki Declaration. Informed consent forms were obtained from participants included in the study.

Data analysis

Confirmatory factor analysis (CFA) was employed to investigate the factorial structure of the SEPTI-TS in the Greek preschool settings. Based on the proposed structure of SEPTI-TS, a four-factor model was postulated and tested. The model was fitted in Mplus 7, using the maximum likelihood method of estimation (Muthén & Muthén, 2012). To evaluate the viability of the model, the χ^2 statistic, the comparative fit index (CFI > .95), the root-mean-square error of approximation (RMSEA < .06) and the standardised root mean square residual (SRMR < .06) were used (Kline, 2015). Cronbach alpha coefficient was used to assess the internal consistency of the factors. To explore differences in parenting self-efficacy between the two time periods, paired samples t test were used. Finally, to examine the effects and interactions of parents' and children's age on parenting

self-efficacy in the first lockdown, a multivariate analysis of variance (MANOVA) was carried out. Parents' and children's age were selected as independent variables. These steps of analysis were performed with the SPSS version 26.

RESULTS

Factorial structure of the SEPTIS-TS short form

Initially, CFA showed that the three fit indices did not suggest a satisfactory fit to the data ($\chi^2 = 609$, $df = 293$, $p < .001$, CFI = .761, RMSEA = .069, SRMR = .083). Inspection of sources that caused model ill fit showed that items 1, 11 and 19 had low standardised loadings (< .30) and items 21, 22, 5 and 6 had similar loadings on two factors; thus, these items were excluded from further analysis and the analysis was performed again. New CFA yielded an improved fit of the model ($\chi^2 = .266$, $df = 146$, $p < .001$, CFI = .905, RMSEA = .053, SRMR = .055) and the four factors accounted for 51.3% of the common variance. All item loadings were statistically significant with substantial values ranging from .521 to .812 (Table 2).

The four factors were named similarly with previous research as nurturance, discipline, play and routine. The descriptive statistics of the factors, their internal consistency and the intercorrelation matrix are presented in Table 2.

Parenting self-efficacy of pre-COVID-19 and first-lockdown period

Descriptive statistics for pre-COVID-19 and first lockdown observations for SEPTIS-TS scores are presented in Table 3. The results showed that within the subscales of SEPTI-TS, the lowest mean was for discipline subscale at both assessments ($M = 4.19$, $SD = 1.14$ and $M = 3.8$, $SD = 1.1$).

Results of paired sample t tests are provided in Table 4. Analyses revealed significant changes in three of four SEPTIS-TS subscales: Discipline, play and routine. Cohen's d values indicated small to moderate effect sizes for those subscales.

Effects of age on parenting self-efficacy

A MANOVA was conducted to examine the influence of parents' and children's age on the variation of self-efficacy in the first-lockdown period. Results did not show statistically significant main effects of parents', $F(4,153) = 2.02$, $p = .094$, Wilks' $\Lambda = .95$, $\eta^2 = .094$, and children's age, $F(4,153) = 2.14$, $p = .080$, Wilks' $\Lambda = .947$, $\eta^2 = .014$, on self-efficacy.

TABLE 2
Confirmatory factor analysis results on the Greek version of the SEPTIS-TS

Items	Factor 1 play	Factor 2 nurturance	Factor 3 discipline	Factor 4 routine
Play_17	.812			
Play_18	.769			
Play_14	.743			
Play_15	.675			
Play_20	.669			
Play_16*	.521			
Care_3		.806		
Care_4		.765		
Care_7		.726		
Care_2		.612		
Dis_9*			.679	
Dis_10*			.678	
Dis_12*			.667	
Dis_13*			.565	
Dis_8*			.564	
Rout_23				.752
Rout_24*				.686
Rout_26				.593
Rout_25*				.562
Eigenvalues	3.15	2.35	2.22	2.03
F2	.389**			
F3	.271**	.074		
F4	.387**	.263**	.278**	

Note: Loadings below .30 are not presented. *Indicates reverse scoring. ** $p < .001$.

TABLE 3
Pre-COVID-19 and first-lockdown assessments scores

	Pre-COVID-19				First lockdown			
	<i>M (SD)</i>	<i>Median</i>	<i>Min.</i>	<i>Max.</i>	<i>M (SD)</i>	<i>Median</i>	<i>Min</i>	<i>Max</i>
Nurturance	6.18 (.74)	6.25	3.50	7	6.24 (.72)	6.50	3.75	7
Discipline	4.19 (1.25)	4.20	1.40	7	3.8 (1.1)	3.80	1.40	7
Play	5.40 (1.14)	5.67	1.33	7	5.17 (.97)	5.17	2.17	7
Routine	5.36 (1.15)	5.50	2.25	7	4.66 (.94)	4.75	1.50	6.50

DISCUSSION AND CONCLUSION

The purpose of the current study was to examine the underlying structure of the Greek version of the SEPTIS-TS and to explore PSE changes during the COVID-19 pandemic.

Results of CFA on the 19 items, hypothesised to assess a four-factor model, revealed a satisfactory fit. The difference in the present scale compared to that of the

SEPTI-TS is in the number of items. The Greek version included fewer items than the original (Coleman & Karraker, 2003). This finding is in agreement with findings from the Dutch version (van Rijen et al., 2014). The internal consistency of the Routine was lower in comparison to the Dutch study, while the internal consistency of the nurturance, discipline and play were very good. This finding could perhaps be attributed to the slight difference in the age of the children between the Greek and

TABLE 4
Statistical comparisons of pre-COVID-19 and first-lockdown assessments

Parenting self-efficacy	Mean diff.	SD	t-Statistics	df	Effect size
Nurturance	-.066	.969	-.859	158	-.068
Discipline	.384	1.68	2.88*	158	.228
Play	.240	1.51	1.997*	158	.158
Routine	.698	1.49	5.881**	158	.466

* $p < .05$. ** $p < .001$.

the Dutch sample. The participating parents in the Dutch sample had younger children and the content of items of routine subscale could be matched better. The findings were encouraging and seemed to support the initially proposed SEPTIS-TS dimensionality. Future applications of the Greek version of the short form of the SEPTIS-TS with a sample of younger children should further test its psychometric properties.

When it comes to examining the differences in parenting self-efficacy between pre-COVID-19 and first-lockdown assessments, this study showed that parents experienced lower levels of self-efficacy during spring 2020. Moreover, results showed the existence of significant mean differences in PSE for discipline, play and routine subscales between pre-COVID-19 and first-lockdown period. These changes of parenting self-efficacy could be explained by a number of COVID-19 related influences, for example remote working, increased caregiving roles and responsibilities, which may have increased parents' perceived stress and resulted in lower perception of parenting self-efficacy (Morelli et al., 2020). However, parenting self-efficacy for nurturance towards the child (e.g., emotional support and feelings of love) appears to show similar scores for pre-COVID-19 and first-lockdown period. This finding indicates that Greek parents may have perceived this aspect of parenthood as part of their normal routines and "obligations."

In terms of the first-lockdown assessment, there were major decreases in parenting self-efficacy for discipline and routine domains. This finding implies that the closure of kindergartens and the lack of structured learning activities for the children may have an additional impact on children's behaviour. Hence, parents tended to have more direct contact and childcare experiences, and it is possible that they did not know how to manage their children and how to set up new routines with them during COVID-19. This in turn may have influenced their parenting self-efficacy beliefs. These results extend previous studies outside the context of COVID-19, which revealed that parents also report less perceived self-efficacy when dealing with their child's independence and child's discipline (van Rijen et al., 2014). Future research would be useful to explore new sources to support PSE of their role and include also parents' views on discipline approaches.

In conclusion, the present study was one of the first in Greece to investigate PSE and its changes during COVID-19. We acknowledge several limitations that need to be considered when interpreting the results, such as the small sample size or the exclusive focus on parents of young children. Moreover, the use only of SEPTIS-TS and the lack of information on parents' and child's characteristics or outcomes before the COVID-19 limit the conclusions that can be drawn. However, this study provides initial evidence for parents' views regarding their

role and abilities to deliver competent parenting successfully during COVID-19 pandemic. It seems that during public health emergencies, parents need to be supported to improve their capacity for delivering high-quality parenting. To help parents be more efficacious, parenting training and intervention programmes should focus on supporting them with skills or individualised practices to improve their strengths regarding constructive setting of limits through managing the child's behaviour and structuring daily routines for example. Changing perceptions of parenting self-efficacy becomes a great challenge for policymakers because parents have developed strong beliefs towards what parenting entails through personal experiences.

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