

PARENTAL STRESS SCALE VALIDATION

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ABSTRACT:

Children with special needs require specialized therapy due to developmental problems or anomalies. To carry out treatment, attend suitable schooling, medicine, and even for daily activities, special needs children may require full or partial support from a caregiver. The high burden of caregivers with special needs generates a terrible quality of life, which impacts mental health and can even lead to unfavorable parental attitudes toward children with special needs. This study aims to validate the Parental Stress Scale (PSS) developed by Deater-Deckard. The Indonesian translation technique refers to the guidelines provided by the International Test Commission. The sample data comprises 250 individuals, including both mothers and caregivers. The results indicate a good fit of the second-order confirmatory factor analysis (CFA) measurement model with the PSS. The reliability of the three PSS dimensions is robust, as evidenced by Composite Reliability (CR) and Average Variance Extracted (AVE) values for parent distress (0.895; 0.552), difficult child (0.907; 0.594), and parent-child dysfunctional relationship (0.954; 0.749). Moreover, the PSS demonstrates both convergent and discriminant validity. Hence, the translation findings affirm the legitimacy and reliability of the Parental Stress Scale (PSS) for use in the Indonesian context.

Keywords: caregiver, confirmatory factor analysis, parental stress, scale validation, special needs children.

INTRODUCTION

Children with special needs require heightened attention, facing challenges arising from disabilities that are both complex and multidimensional, as defined According to the World Health Organization (Paisal et al., 2023; Pathak, n.d.). These disabilities include limitations in functioning, activity restrictions, and participation limitations arising from adverse interactions between individuals with health conditions and contextual factors (Loeb et al., 2008). These children often necessitate specialized therapy due to developmental anomalies, whether

physical (e.g., blindness) or psychological (e.g., autism or ADHD) (Kusumawati, 2020; Rapin, 1991). Described as having unique qualities, children with special needs, or ABK, experience limitations and require assistance for daily tasks, therapy, education, and more (Rahmawati et al., 2021).

Caregivers play a crucial role in supporting ABK, but this responsibility comes with a significant burden (Björkhem et al., 1992). Studies indicate mental, physical, social, and financial burdens on caregivers (Zhang et al., 2023). This burden affects their quality of life and mental well-being, with prevalence rates of depression, anxiety, and medication use reported. Parents, particularly those of children with special needs, may struggle with acceptance, leading to a strained parent-child relationship. Parenting stress significantly impacts childcare effectiveness and the parent-child relationship, affecting psychological well-being (Nomaguchi, 2012).

Family functioning becomes a crucial psychological aspect in understanding and addressing parenting stress (Pu & Rodriguez, 2023). Family functioning involves activities and interactions among family members to achieve goals, offer support and emotional assistance, and foster well-being (Bandura et al., 2011). The research's objective is to create an instrument for assessing parenting stress levels among parents of children with special needs in the Indonesian context (Widyawati et al., 2021). Difficulties encountered by parents in Indonesia who are raising children with autism disorders involve societal stigma and insufficient social support (Daulay, 2018; Schraeder, 1995).

Parenting stress, described as stress-disrupting parenting practices, plays a role in dysfunctional family management (Shapiro et al., 2014; Waller, 2007). Factors influencing parenting stress encompass child behavior problems, social support, family cohesion, family income, and maternal psychological well-being. The study's insights aim to provide a comprehensive understanding of parenting stress and contribute to developing effective interventions and support systems for parents of children with special needs.

RESEARCH METHODS

Adoption of Parental Stress Scale (PSS)

The researcher employed a measurement tool comprising translation, expert assessment, and readability evaluations (Sun & Shreve, 2014). The translation of the instruments into Indonesian involved both forward and backward references to the International Test Commission (Beaton et al., 2013). Simultaneously, an expert evaluation was conducted by a clinical psychologist specializing in parenting stress-related issues.

Parental Stress Scale Try Out

Following the translation and adaptation of parenting stress measurement instruments, the researchers carried out a trial of the said instrument on a selected group of subjects (Fekih-Romdhane et al., 2023; Wright et al., 2023). The subjects were chosen using purposive

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sampling, with specific criteria: parents of children with special needs, located in the Central Java region, chosen for accessibility. The data collected underwent analysis using the Second Order Confirmatory Factor Analysis method with support from the Lisrel program (Annunziata et al., 2011; Juanamasta et al., 2023).

Operational Definition of Parenting Stress

Parenting stress can be characterized as the impairment of parental roles in caregiving resulting from interactions with children, particularly stemming from inadequate parental responses when dealing with conflicts involving children with special needs, hindering their well-being. The aspects of Stress in Parenting (Deater-Deckard et al., 2005), are: the parent experiences distress, the challenging child, the dysfunctional interaction between parent and child. When utilizing the PSS, participants were requested to assess each statement on a scale ranging from 1 (not at all compatible with me) to 5 (very much compatible with me).

Sample:Original item: When I see my child feeling sad, I feel sad and stressed too.

Forward Translation:

Ketika saya melihat anak saya merasa sedih, saya sedih juga dan stress.

Ketika saya melihat anak sedih, saya merasa sedih dan stres.

Back Translation: When I see my child sad, I feel sad and stressed.

Final item: *Ketika melihat anak saya sedih, saya merasa sedih dan stress.*

RESULTS AND DISCUSSION

Second Order CFA

The trial involved 250 research participants, encompassing caregivers such as mothers, therapists, and babysitters. The study was conducted across five research locations, including therapy centers and educational institutions that serve children with special requirements (PLA Solo and Yogyakarta; Yamet Solo, Yogyakarta, and Semarang).

Descriptive Analysis

The descriptive analysis of the subjects based on gender, highest education level, and occupation revealed the following: the majority of respondents were female, constituting 76%, with males comprising 24%. In terms of occupation, respondents were distributed as follows: 42% were civil servants, 15% were private employees, and 43% were housewives. Regarding education levels, the breakdown was as follows: 38% held a Diploma-3, 27% had a Bachelor's degree, 28% completed Senior High School, 5% had a Junior High School education, and 2% had a Master's degree.

Goodness of Fit

Table 1. Fit Model Measurement

No	Criteria	Cut off Value	Result	Conclusion
1	GFI	$\geq 0,9$	0,92	Good fit

2	RMR	$\leq 0,05$	0,023	Good fit
3	RMSEA	$\leq 0,08$	0,00	Good fit
4	NNFI	$\geq 0,9$	1,00	Good fit
5	NFI	$\geq 0,9$	0,97	Good fit
6	AGFI	$\geq 0,9$	0,91	Good fit
7	RFI	$\geq 0,9$	0,97	Good fit
8	IFI	$\geq 0,9$	1,00	Good fit
9	CFI	$\geq 0,9$	1,00	Good fit
10	PGFI	0 - 1	0,77	Good fit
11	CMIN/df	$< 5,0$	0,985	Good fit
12	PNFI	0 - 1	0,88	Good fit

*According to the Goodness of Fit table, the PSS scale model conforms to the established model fit criteria. Each dimension's value surpasses 0.6, and the AVE value for each dimension is > 0.5 , indicating that the validity is accepted.

Validity Test

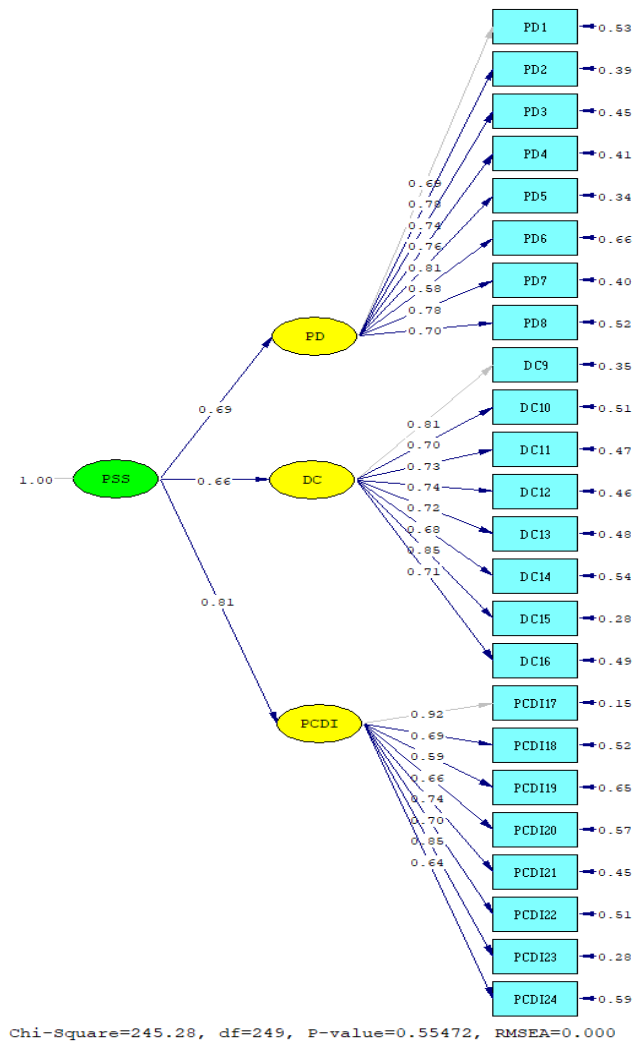


Figure 1. Model Second Order CFA

To evaluate the validity of individual items within a dimension, the path coefficient or lambda (λ) is utilized to measure the correlation between the item and its dimension. An item is considered valid if the coefficient is > 0.5 , and invalid if the coefficient is < 0.5 . Based on the Lisrel output depicted in Figure 1, the inference is:

Table 2. Validity Test

Dimension	Indicator	Item	λ	CR	λ^2	$\sum \lambda^2$	VE
The Parent Distress (PD)	PD 1	<i>Saya merasa cemas ketika anak saya menangis.</i>	0.69		0.476	4.30	0.538
	PD 2	<i>Saat anak saya bermain bersama teman-temannya, saya merasa tenang dan tidak khawatir.</i>	0.78		0.608		
	PD 3	<i>Saya merasa gembira dan tertawa lepas ketika ada teman yang mengajak bercanda.</i>	0.74		0.548		
	PD 4	<i>Kesibukan mengurus anak membuat saya kurang termotivasi untuk mempercantik diri.</i>	0.76		0.578		
	PD 5	<i>Melihat anak merasa sedih membuat saya turut merasakan kesedihan dan stres.</i>	0.81	0.902	0.656		
	PD 6	<i>Saya masih bisa berkonsentrasi meskipun sedang memikirkan anak.</i>	0.58		0.336		
	PD 7	<i>Memperhatikan perkembangan anak tidak membuat saya mengalami sakit kepala.</i>	0.78		0.608		
	PD 8	<i>Selama saya fokus mengasuh anak, saya menjadi kurang sering berinteraksi dengan tetangga.</i>	0.70		0.490		
The Difficult Child (DC)	DC 9	<i>Saya mampu secara langsung merespons lawan bicara ketika sedang berbincang dengan anak saya.</i>	0.81		0.656	4.43	0.554
	DC 10	<i>Saya merasa tenang ketika mempercayakan pengawasan anak saya kepada orang lain, seperti</i>	0.70	0.908	0.490		

Indicator	Item	λ	λ^2
	<i>guru di sekolah.</i>		
DC 11	<i>Saya cenderung cepat marah apabila ada orang yang menyindir kondisi anak saya.</i>	0.73	0.533
DC 12	<i>Dalam mengurus anak, saya mengalami sakit maag karena sering makan terlambat.</i>	0.74	0.548
DC 13	<i>Walaupun sibuk mengurus anak, saya tetap menjaga jadwal makan saya agar tetap teratur.</i>	0.72	0.518
DC 14	<i>Terlibat dalam aktivitas anak saya membuat saya cepat merasa lelah.</i>	0.68	0.462
DC 15	<i>Saya menjadi suka terkejut ketika mendengar anak saya berteriak.</i>	0.85	0.723
DC 16	<i>Saya menyerahkan sepenuhnya masa depan anak saya kepada Tuhan sehingga saya tidak bermimpi buruk.</i>	0.71	0.504
PCDI 17	<i>Saya cepat bersitegang dengan siapa pun yang mengganggu anak saya.</i>	0.92	0.846
PCDI 18	<i>Saat saya menyerahkan pengawasan anak saya kepada orang lain seperti guru di sekolah, hati saya dipenuhi rasa cemas.</i>	0.69	0.476
PCDI 19	<i>Meskipun sedang memikirkan kondisi anak, porsi makan saya tetap tidak bertambah.</i>	0.59	0.348
PCDI 20	<i>Saya berupaya untuk mengendalikan emosi saya ketika ada orang yang menyindir kondisi anak saya.</i>	0.66	0.436
PCDI 21	<i>Saya menutup pintu dan jendela dengan rapat agar anak saya tidak bisa keluar rumah tanpa sepengetahuan saya.</i>	0.74	0.548
PCDI 22	<i>Polanya tidur saya menjadi tidak menentu karena</i>	0.70	0.490

<i>mengikuti jam tidur anak.</i>			
Indicator	Item	λ	λ^2
PCDI 23	<i>Saya berusaha menjadwalkan waktu tidur anak tepat pada waktunya agar tidak mengganggu jadwal tidur saya.</i>	0.85	0.723
PCDI 24	<i>Saya mudah memaafkan orang yang telah mengganggu anak saya</i>	0.64	0.410

Reliability Test

A reliability assessment was conducted, considering Composite Reliability (CR) and Average Variance Extracted (AVE) values. Table 4 presents a synopsis of the reliability examination for the Parental Stress Scale:

Table 3. Reliability Test Summary

Dimension	CR	Interpretation
PD	0,799	Reliabel
DC	0,891	Reliabel
PCDI	0,902	Reliabel

Dimension	AVE	Interpretation
PD	0,518	Reliabel
DC	0,588	Reliabel
PCDI	0,696	Reliabel

*Note:

PD : The Parent Distress

DC : The Difficult Child

PCDI : The Parent-Child Disfunctional Interaction

CR : Composite Reliability, if $CR > 0,7$, construct is reliable

AVE : Average Variance Extracted, if $AVE > 0,5$, construct is reliable

In this study, the researcher adopts the definition of parenting stress from Deater-Deckard (2004), stating parenting stress is described in this study as a sequence of processes resulting in unfavorable psychological states and reactions. These reactions emerge as a means of adapting to the challenges of parenting and are characterized by (1) distressed parents, (2) challenging children, and (3) dysfunctional parent-child interactions.

The translation of Parental Stress Scale (PSS; 24 items, from Deater-Deckard, 2004) into Indonesian involved both forward and backward translation following the guidelines of the International Test Commission. Additionally, an expert review was conducted by a clinical psychologist specializing in the concept of parenting stress. The second-order Confirmatory Factor Analysis (CFA) yielded the following outcomes: (1) The Goodness of Fit test met 12 criteria for a good fit, indicating that the model is suitable for research purposes; (2) The validity test demonstrated the overall validity of all items (a total of 24 items); (3) The reliability test affirmed the reliability of the three dimensions derived from the construct of Parenting

Stress. These findings suggest that the Parental Stress Scale is suitable for use in research conducted in Indonesia.

There were difficulties in translating the scale that caused by the different characteristics of the children with disabilities. For instance, caregivers of children with ASD may interpret different meaning from item “Jam tidur saya jadi tidak menentu karena mengikuti jam tidur anak” compared to parents of children with ADHD. They have unique bedtimes because they are very energetic so that parents may often sleep late. Many items were not representative. Nonetheless, the validity was high. The limitation of this study is that the measuring instrument represents parents, while the subjects involved in this study were caregivers (including mothers, therapists, and baby-sitters of children with special needs).

CONCLUSION

The second-order Confirmatory Factor Analysis (CFA) model aligns well with the Parental Stress Scale (PSS). The high reliability of the three dimensions of PSS is evident through the values of CR and AVE. Consequently, the translated Parental Stress Scale (PSS) is considered a valid and reliable instrument suitable for use in Indonesia.

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