

Parental Consideration of Children's Futures: Indonesian Adaptation of the Parenting-Related CFC Scale

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Abstract. The Parenting-adapted Consideration of Future Consequences (pCFC) scale is a relatively recent instrument developed to assess time orientation in parenting decision-making. However, it had not previously been adapted for use in the Indonesian context. This study aimed to develop an Indonesian version of the pCFC and to evaluate its validity and reliability among Indonesian parents. The adaptation process followed a six-stage procedure: pre-condition, test development, confirmation, administration, scoring and interpretation, and documentation. Data from 197 parents of children aged 3–6 years were analysed using item factor analysis (IFA) to examine internal structure and McDonald's omega to estimate internal consistency. Results supported the original two-factor model, distinguishing between future-oriented and immediate-oriented perspectives. After removing one low-performing item, the final Indonesian version comprised 13 items with significant factor loadings and acceptable model fit. Reliability estimates indicated satisfactory internal consistency for both the future-oriented factor and the total scale score. However, the immediate-oriented factor demonstrated lower reliability, warranting cautious interpretation of its scores. Overall, these findings provide preliminary support for the use of the Indonesian pCFC scale in assessing how parents weigh short- and long-term consequences in their parenting decisions. Recommendations for enhancing the psychometric quality of the immediate-oriented factor are also discussed.

Keywords: parenting; early childhood; pCFC; instrument; validity; reliability

Becoming a parent is challenging, especially for those parenting young children. A newborn child is dependent and cannot perform basic daily activities on its own until at least one year of age. A child begins to develop a sense of self and autonomy at 18 months, and these qualities only mature during adolescence. A child's ability to think logically and abstractly starts to develop around the age of 11, and reaches full maturity only when the prefrontal cortex—the part of the brain involved in reasoning, decision-making, and self-regulation—is fully developed, typically between 18 and 25 years old (Papalia & Martorell, 2023; Santrock, 2011). During this time, children rely on their parents for care and physical and social needs to survive (Brooks, 2013). This is in line with regulations in Indonesia, as stated in Article 26, paragraph 1 of Law No. 35/2014 and the Child Protection Law, which asserts

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that children under 18 years of age remain the responsibility of their parents.

Parents must carefully consider the long-term effects of decision-making and actions related to child-rearing, especially in the context of early childhood. Research has shown that parenting decisions and actions during early childhood years have long-lasting implications into adulthood. Positive parenting practices during childhood are associated with better mental health, educational achievements, and social adjustments both in childhood and over the long term into adulthood (Bachmann et al., 2022).

Wittmann and Paulus (2008) proposed that time orientation influences decision-making and behavior. On a daily basis, individuals often face choices between actions with immediate consequences or those with delayed, future consequences. Individuals with a short-term orientation typically focus on their immediate needs and concerns, often acting to satisfy these needs without considering long-term consequences. In contrast, individuals with a long-term orientation consider the future impact of their actions and use this as a guide for their current decisions, sometimes at the expense of immediate consequences (Strathman et al., 1994). Felton et al. (2023) found that negative and maladaptive outcomes (e.g., parenting stress and aggravation) are strongly associated with parents with short-term orientation. On the other hand, long-term orientation has been linked to less negative parenting practices and more parental involvement, serving as a protective factor for children's development.

Unfortunately, parents, particularly those with young children, often neglect long-term impacts due to the challenges and dilemmas in everyday situations. For example, when a child throws a tantrum, a situation that typically peaks in children under 6 years old (den Akker et al., 2022; Papalia & Martorell, 2023), parents are often driven to act quickly. The initial reaction from parents is typically confusion and surprise. Sometimes parents attempt various strategies to manage the tantrum, such as hugging or distracting the child. However, there are also instances where parents may feel embarrassed, particularly in public spaces, and immediately resort to physical punishment (Pratiwi et al., 2023). While behaviors like spanking or verbal intimidation may stop the immediate problem and reduce parental stress in the short term, these actions can have detrimental long-term effects, such as disobedience, emotional dysregulation, mental health issues, and damaged parent-child relationships (Coln et al., 2013; Suh & Luthar, 2020).

Another emerging trend in recent years relates to how parents use technology to calm their children. In Indonesia, parents have shown a tendency to use gadgets to entertain or soothe their children. This practice, referred to as "gadget-centric parenting style" in an article by Tempo.co (2019), sees parents using gadgets as "digital babysitters," as children become calmer when engaged with these devices (Munawar & Nisfah, 2020). Kiling-Bunga et al. (2020) noted that parents often struggle to limit their children's screen time. Despite being aware of the potential negative effects, parents frequently provide their children with devices to keep them calm and avoid disrupting work (Cahyati et al., 2024). This can impair children's ability to interact and socialize, as they choose to engage with gadgets instead of socializing with parents or peers (Scott et al., 2017). Additionally, children may struggle with emotion regulation and experience more intense tantrums when they cannot use

gadgets (Hegde et al., 2019). Over time, this habit may lead to excessive gadget use, negatively affecting development, including reduced concentration, weak emotional control, gadget addiction, and health problems due to radiation exposure (Wahyuningtyas et al., 2022; Zain et al., 2022).

A similar issue arises in parental behavior during mealtime. One common challenge for parents with young children is fussy eating, where children resist eating. When this occurs, parents often resort to force or distractions, such as offering children a screen to encourage them to open their mouths and eat. While this may result in immediate compliance, it can negatively affect children's long-term eating habits, potentially leading to trauma of being forced to eat (Chumairoh & H, 2021; Maulidya & Muniroh, 2020).

These phenomena highlight the urgent need to explore how Indonesian parents, particularly those with young children, utilize long-term or short-term orientations in their parenting practices. One measure of time orientation that has been used to assess parental decision-making in child-rearing is the Parenting-adapted Consideration of Future Consequences Scale (pCFC), developed by Felton et al. (2023). This scale is adapted from the Consideration of Future Consequences Scale (CFC) by Strathman et al. (1994), which measures how individuals consider long-term outcomes in relation to their current behaviors. The CFC scale contains 12 items that assess how well each statement describes the participant's characteristics, using a 5-point rating scale ranging from 1 ("not at all like me") to 5 ("very much like me"), with higher scores indicating a greater long-term orientation. To enhance the psychometric properties, Joireman et al. (2012) added two items, bringing the total to 14 items—seven assessing long-term orientation and seven assessing short-term orientation. The 14-item scale has demonstrated excellent internal reliability and a stable two-factor structure (CFC-future and CFC-immediate).

This 14-item scale was subsequently adapted by Felton et al. (2023) for use in parenting contexts. The CFC scale has been used in various studies on different topics (Bruderer Enzler, 2013; Murphy & Dockray, 2018; Rebetez et al., 2016) and has been translated into several languages, including Malay (She et al., 2021), Portuguese (Echeverría et al., 2015), Spanish (Acuña et al., 2020), French (Demarque et al., 2010), and Italian (Nigro et al., 2016). However, the pCFC is still relatively new and has not been adapted into any language. Therefore, this study aimed to adapt the pCFC into the Indonesian language and evaluate its suitability for use in the Indonesian context.

Methods

Participants

The participants in this study were parents (fathers and mothers) of children aged 3–6 years, recruited through convenience sampling. Initially, the study gathered 223 participants, but 26 responses were excluded due to non-compliance with the research criteria or incomplete questionnaires, resulting in 197 responses. The final sample size of 197 is considered adequate for the purposes of this study, as methodological guidelines generally recommend a minimum of 10 participants per item in scale validation (DeVellis, 2003).

Of the 197 participants included in the analysis, 70.6% ($n = 139$) were mothers and 29.4% ($n = 58$) were fathers. Participants were 25 to 45 years old at the time of the study. In terms of employment status, 58.9% ($n = 116$) worked full-time, 27.9% ($n = 55$) were not employed, 8.6% ($n = 17$) were freelance workers, and 4.6% ($n = 9$) worked part-time. Regarding educational background, 70.6% ($n = 139$) held a bachelor's degree, 17.8% ($n = 35$) held a master's or doctoral degree, 7.6% ($n = 15$) held a diploma degree, and 4.1% ($n = 8$) had completed senior high school.

Instruments

The instrument used in this study was the Parenting-adapted Consideration of Future Consequences Scale (pCFC), which has been adapted into Indonesian. The pCFC is a measurement tool developed by Felton et al. (2023) consisting of 14 items, with 7 items representing long-term orientation (pCFC-future) and 7 items representing short-term orientation (pCFC-immediate). Each item has a five-level response on a Likert scale. These options range from "strongly not like me/*sangat tidak mirip dengan saya*" (1), "not like me/*tidak mirip dengan saya*" (2), "somewhat like me/*agak mirip dengan saya*" (3), "like me/*mirip dengan saya*" (4), and "strongly like me/*sangat mirip dengan saya*" (5).

The procedure for adapting the pCFC scale into Indonesian followed the translation and adaptation guidelines provided by the International Test Commission (2017). There were six stages: pre-condition, test development, confirmation, administration, scoring and interpretation, and documentation. The pre-condition stage involved communicating with and requesting permission from the developers of the pCFC instrument via email for adaptation into Indonesian. The original pCFC instrument was obtained directly from the developers.

The test development stage involved forward and backward translation, with four translators involved. The forward translation from English to Indonesian was carried out independently by two translators with backgrounds in English Literature and Psychology. The result of the forward translation was synthesized to create the Indonesian draft of the pCFC. This draft then proceeded to the backward translation stage, from Indonesian to English, performed independently by two translators with backgrounds in Master's of Child Development and Education and in English Language Teaching (CELTA). All translators had an IELTS score of 7.5, ensuring their proficiency in English. The results of the backward translation were analyzed by comparing them with the original instrument to ensure equivalence in meaning.

The confirmation stage involved submitting the draft of the pCFC instrument in Indonesian to an expert in educational psychology to evaluate the alignment of the translation with theoretical concepts, paying attention to proper Indonesian grammar and suitability for the intended population. Some wording was revised, such as removing the term "*biasanya* (usually)" and replacing "*hal* (thing)" with "*masalah* (issue)" to make it more specific, clear, and precise, avoiding ambiguity and multiple interpretations. The researcher then revised the instrument based on the expert's suggestions and proceeded to the administration stage after receiving approval from the expert.

The administration stage was conducted online using a Google Form. The questionnaire was divided into four sections: informed consent, demographic data of participants, the main scale, and a

debriefing sheet. To ensure participants completed the questionnaire carefully, a dummy question was included at the end of the questionnaire.

Data collection was conducted from December 2024 to January 2025. The link to the questionnaire was distributed directly to target participants through personal WhatsApp stories and Instagram stories, with additional support from several influencers and acquaintances, who helped share the poster and questionnaire link. Before participation, all respondents were required to read and agree to an informed consent form, which outlined the study's purpose, procedures, voluntary nature of participation, and data confidentiality. After completing the questionnaire, participants also received a debriefing sheet to further clarify the purpose of the study, reassure confidentiality, and offer contact information should they have any questions or concerns.

After responses were collected, the researchers proceeded to the scoring and interpretation stage, where responses were transferred from the online questionnaire to Microsoft Excel for cleaning and verification before analysis. Participants who did not meet the inclusion criteria or who submitted incomplete responses were excluded from the final dataset. The final stage was then concluded by a documentation in the form of a report.

Data Analysis

To examine the factor structure of the Indonesian pCFC scale, data were analyzed using JASP version 0.19.3 (Apple Silicon), a free and open-source statistical analysis software. Prior to conducting validity and reliability testing, normality was assessed by checking the skewness and kurtosis within the range of ± 1 , which is essential for the application of certain confirmatory factor analysis (CFA) estimators. CFA or item factor analysis (IFA) can be conducted to test the two-factor model proposed by Felton et al. (2023). CFA is typically applied when ordinal responses are treated as continuous and the data is normally distributed. In contrast, IFA is preferred when the normality principle is violated or when items have a limited number of response categories (e.g., five or fewer), as it models ordinal data (Cai, 2010; Forero et al., 2009; Kyriazos & Poga-Kyriazou, 2023). Model fit was evaluated using four standard indices: comparative fit index (CFI) $> .95$, Tucker-Lewis index (TLI) $> .95$, root mean square error of approximation (RMSEA) $< .06$, and standardized root mean square residual (SRMR) $< .08$ (Brown, 2015; Hu & Bentler, 1999). We also did not consider factor loading of less than .3 (Field, 2013). Reliability estimates for each factor and the total scale were computed using McDonald's omega, which is preferred over Cronbach's alpha due to its robustness against violations of essential tau-equivalence (Dunn et al., 2014; Kalkbrenner, 2021). Omega values greater than .70 are considered indicative of acceptable internal consistency (Dunn et al., 2014; Ravinder & Saraswathi, 2021).

This research protocol was approved by the Ethics Committee of the Faculty of Psychology, Universitas Indonesia (No: 213/FPsi.Komite Etik/PDP.04.00/2024) prior to data collection. Participants were provided with an explanation of the research objectives and assured that the data collected would only be used for the purposes of this study. Participants were then given the freedom to decide whether or not to participate. Informed consent was obtained from all participants, and their participation was voluntary.

Results

The two-factor model of the parenting-adapted Consideration of Future Consequences (pCFC) scale, originally proposed by Felton et al. (2023), was tested in a sample of Indonesian parents using item factor analysis (IFA), where the weighted least squares with mean and variance adjusted (WLSMV) estimator was employed due to violations of normality, as several items showed skewness and kurtosis values beyond the ± 1 threshold (Table 1). This approach also aligns with recommendations to treat response scales with five or more categories as ordered-categorical (Cai, 2010; Forero et al., 2009; Kyriazos & Poga-Kyriazou, 2023).

Table 1

Distributions of the pCFC Items (n = 197)

Items	Response Scale (%)					Descriptive Statistics			
	1	2	3	4	5	M	SD	Skew	Kurt
Item 1 <i>Saya memikirkan bagaimana keadaan anak saya di masa depan, dan saya mencoba memengaruhi masa depan mereka melalui tindakan saya sehari-hari.</i>	0	4.06	12.69	49.74	33.5	4.127	.782	-.744	.365
Item 2 <i>Saya bertindak demi kebaikan anak saya meskipun manfaatnya tidak terlihat langsung.</i>	0	.5	8.12	50.25	41.11	4.320	.642	-.526	-.082
Item 3 <i>Semua hal yang saya lakukan sebagai orangtua merupakan respon atas hal yang terjadi saat ini pada anak saya. Apa yang terjadi di masa depan tidak perlu dipikirkan sekarang.</i>	15.22	49.74	19.79	12.18	3.04	2.381	.986	.724	.097
Item 4 <i>Cara saya bertindak terhadap anak berkaitan dengan apa yang saya inginkan terjadi padanya dalam waktu dekat. (Misalnya: hari ini atau minggu ini)</i>	3.04	19.29	36.04	35.02	6.6	3.228	.939	-.210	-.424
Item 5	24.36	45.68	22.84	4.06	3.04	2.157	.943	.862	.905

Table 1 (Continued)*Distributions of the pCFC Items (n = 197)*

Items	Response Scale (%)					Descriptive Statistics			
	1	2	3	4	5	M	SD	Skew	Kurt
<i>Saya lebih sering memikirkan tentang kenyamanan saya sendiri ketika memutuskan untuk melakukan sesuatu dengan anak saya.</i>									
Item 6	1.52	13.19	22.84	30.45	31.98	3.782	1.082	-.482	-.757
<i>Saya rela meninggalkan kebahagiaan atau kesejahteraan saya sekarang demi kebaikan masa depan anak saya.</i>									
Item 7	1.01	1.52	11.67	50.25	35.53	4.178	.772	-1.057	2.106
<i>Penting untuk menganggap serius peringatan tentang hal buruk yang dapat terjadi pada anak saya, meskipun hal tersebut tidak akan terjadi dalam waktu dekat.</i>									
Item 8	2.53	18.78	29.44	32.48	16.75	3.421	1.055	-.173	-.764
<i>Lebih baik melakukan sesuatu yang akan mempunyai manfaat besar bagi anak saya di masa depan daripada melakukan sesuatu yang manfaatnya sekarang, namun lebih kecil.</i>									
Item 9	19.79	58.88	15.73	4.06	1.52	2.086	.807	1.020	1.917
<i>Saya mengabaikan peringatan tentang masalah yang mungkin timbul pada anak saya di masa depan karena masalah tersebut dapat diselesaikan sebelum ia besar.</i>									
Item 10	43.14	49.24	5.58	1.52	.5	1.670	.698	1.191	2.798
<i>Saya merasa saya tidak perlu berkorban untuk anak saya sekarang karena hal yang terjadi di masa depan itu dapat diselesaikan nanti.</i>									
Item 11	9.13	41.11	31.98	15.73	2.03	2.604	.929	.329	-.354

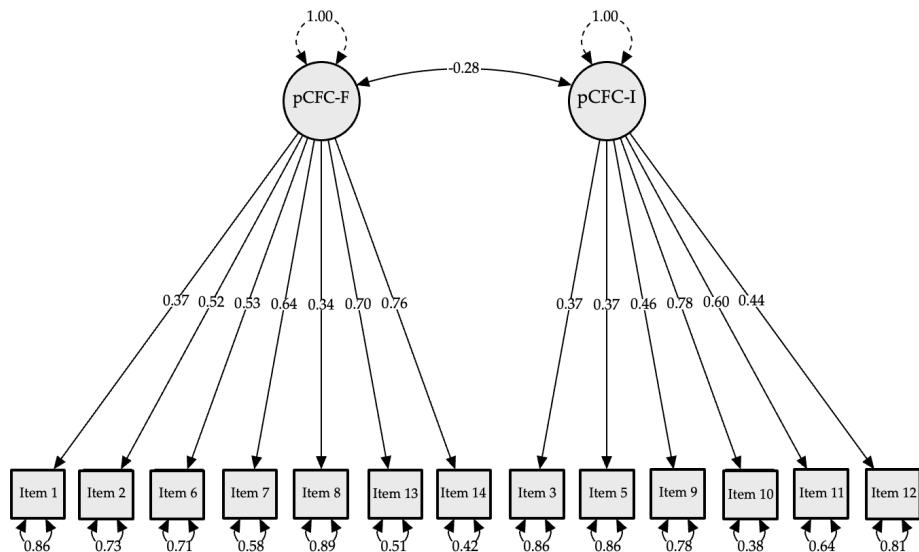
Table 1 (Continued)*Distributions of the pCFC Items (n = 197)*

Items	Response Scale (%)					Descriptive Statistics			
	1	2	3	4	5	M	SD	Skew	Kurt
<i>Saya cenderung melakukan hal-hal yang dapat mengatasi kekhawatiran saya saat ini untuk anak saya. Masalah yang ada di masa depan akan saya selesaikan nanti.</i>									
Item 12	5.07	44.16	26.9	18.78	5.07	2.746	.988	.529	-.453
<i>Lebih baik bagi saya untuk fokus melakukan hal yang segera berdampak pada perilaku anak saya saat ini, daripada fokus melakukan yang dampaknya baru terasa di masa depan.</i>									
Item 13	.5	1.01	5.58	48.73	44.16	4.350	.681	-1.158	2.845
<i>Ketika saya membuat keputusan tentang anak saya, saya memikirkan bagaimana dampaknya di masa depan.</i>									
Item 14	.5	1.01	14.72	52.28	31.47	4.132	.730	-.686	1.027
<i>Cara saya bertindak terhadap anak saya didasarkan pada bagaimana hal itu dapat berdampak terhadapnya di masa depan.</i>									

Some of IFA's fit indices disagreed with each other: CFI = .991; TLI = .893; RMSEA = .056; and SRMR = .084. While CFI and RMSEA met the recommended thresholds (CFI > .95, RMSEA < .06), the TLI was below the acceptable cutoff of .95, and the SRMR exceeded the maximum threshold of .08 (Brown, 2015; Hu & Bentler, 1999). To improve model fit, items with factor loadings below .30 were considered for removal. Item 4 "Cara saya bertindak terhadap anak berkaitan dengan apa yang saya inginkan terjadi padanya dalam waktu dekat. (Misalnya: hari ini atau minggu ini)" was found to have a factor loading of only .04 and was therefore excluded from the model. After this refinement, the remaining factor loadings ranged from .336 (Item 8) to .785 (Item 10), as presented in Table 2.

Table 2*Standardized Loadings, Standard Errors, and Reliability Estimates of the pCFC Scale*

Item	Factor Loadings	Standard Errors
Factor 1: pCFC-Future ($\omega = .722$)		
Item 1	.370	.079
Item 2	.521	.073
Item 6	.535	.064
Item 7	.645	.070
Item 8	.336	.081
Item 13	.697	.084
Item 14	.758	.063
Factor 2: pCFC-Immediate ($\omega = .629$)		
Item 3	.371	.097
Item 5	.369	.107
Item 9	.465	.101
Item 10	.785	.085
Item 11	.602	.093
Item 12	.441	.092
Total Score pCFC Scale ($\omega = .764$)		

Figure 1*Item Factor Analysis of the pCFC Scale*

All factor loadings in the final model were statistically significant, indicating that each item represented its latent construct. The model demonstrated good fit to the data ($CFI = .972$; $TLI = .966$; $RMSEA = .033$; and $SRMR = .074$), meeting established criteria (Hu & Bentler, 1999). As seen in Figure 1, a significant negative correlation was found between the two factors ($\Phi = -.279$, $p = .028$), consistent

with the original structure proposed by Felton et al. (2023), where items loaded onto distinct future and immediate orientation factors.

Estimates of internal consistency were calculated for both factors and the total scale. Given that the unadopted CFC total score (derived by reverse-coding the present-orientation items and summing them with the future-orientation items) is the most commonly used composite in the literature (Murphy et al., 2020), overall reliability was also assessed. The omega coefficient for the pCFC-Future factor was .722 and for the total scale score was .764, both indicating acceptable internal consistency ($\omega > .7$). However, the omega for the pCFC-Immediate factor was .629, reflecting slightly lower reliability, which will be discussed further in the next section.

Discussion

The present study examined the structural validity of the pCFC scale within an Indonesian cultural context. The two-factor model proposed by Felton et al. (2023) distinguishing future and immediate orientation was replicated, with all significant item loadings onto their respective latent constructs. This is consistent with previous studies done in Western contexts, suggesting conceptual equivalence of future vs. immediate time orientation across cultures.

The initial model showed acceptable CFI and RMSEA values but failed to meet the TLI and SRMR thresholds. This discrepancy does not necessarily indicate flaws in the model or data as differences in fit index evaluations can occur because each index is based on distinct calculations and has varying sensitivity. CFI and RMSEA are generally more stable with respect to external variables, while TLI and SRMR are more prone to bias, including from estimation methods and sample size. Furthermore, using cutoff values as absolute thresholds may also introduce bias, as each index assesses model fit from a different perspective, and cutoffs do not apply uniformly across all data types or models (Lai & Green, 2016; Stone, 2021).

Nevertheless, closer examination revealed that Item 4, which refers to a short-term orientation had a low factor loading, suggesting it did not adequately reflect the underlying latent construct in this population and was therefore removed. This aligns with Vilar et al. (2022) in their development of the ultra-short scale version of the CFC, who noted that items involving temporal abstraction can introduce cognitive complexity. In particular, the phrase “immediately (i.e. today or this week)/*dalam waktu dekat* (Misalnya: *hari ini atau minggu ini*)” may carry different meanings for different respondents, potentially contributing to inconsistent responses and reduced measurement precision.

The internal consistency estimates further support the use of the adapted scale. The total scale and the future-oriented factor demonstrated acceptable internal consistency. However, the relatively lower reliability observed for the immediate-oriented factor can be explained by its limited number of items within this factor. Several scholars have emphasized that reliability is influenced by the number of items included in a scale. Higher number of items is typically required to achieve acceptable reliability (Ebel, 1979; Raubenheimer, 2004; Sax, 1980; Thorndike, 2005).

The relatively low reliability observed in the immediate-oriented factor may also be culturally

driven. As noted by Hutapea et al. (2024), many Indonesian parents hold high—and often inflexible—expectations for their children, to the extent that these expectations are frequently imposed in day-to-day parenting behaviors. In such cases, immediate considerations already align with future-oriented outcomes, reducing variation in how parents respond to short-term trade-offs.

Additionally, Indonesia is a collectivist society in which family and group interests are strongly prioritized over individual needs (Alfaeni & Rachmawati, 2023). Within this cultural framework, several items in the immediate-oriented factor—particularly Item 5, and to some extent Items 9 and 10—may be interpreted as suggesting self-centeredness or a lack of concern for the child. This perceived misalignment with dominant parenting norms may trigger social desirability bias (Krumpal, 2023), prompting participants to answer in ways that reflect cultural ideals rather than their authentic attitudes or behaviors. These culturally-reinforced response patterns may reduce response variability and increase homogeneity within the sample (Ebel, 1979; Raubenheimer, 2004; Sax, 1980; Thorndike, 2005), which in turn can undermine the internal consistency of the factor.

Conclusion

This study provides initial evidence supporting the structural validity of the Indonesian version of the Parenting-adapted Consideration of Future Consequences (pCFC) scale. The two-factor model, distinguishing future and immediate orientation, showed an acceptable model fit and statistically significant item loadings when tested in an Indonesian sample. After removing one item with a low loading, the final Indonesian version of the scale comprises 13 items. The total scale and future-oriented factor demonstrated acceptable internal consistency, indicating the items' reliability within this cultural context. However, the internal consistency for the immediate-oriented factor was lower, suggesting that interpretations of these scores should be approached with caution. Item count limitations, cultural-linguistic nuances, and potential social desirability bias might have contributed to this result.

Recommendation

Future research should focus on strengthening the psychometric properties of the immediate-oriented factor. This may involve expanding the number of items to enhance internal consistency, revising item wording to improve clarity and relevance, and conducting readability tests to ensure better cultural and linguistic alignment.

Declaration

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Authors' Contributions

This research was conducted by SRA, who was responsible for the manuscript preparation, data collection, analysis, and interpretation of the results. LRMR served as the supervisor, offering guidance and valuable input in enhancing the research and manuscript. Both authors have reviewed and approved the final version of the manuscript.

Conflict of Interest

The authors declare that there are no conflicts of interest that could influence the results or outcomes of this research.

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