

Original Article

Translation and validation of the Indonesian version of the Family Support Scale (FSS) for elderly

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Abstract

Background: Family support is a crucial determinant of elderly wellbeing, influencing emotional stability, independence, and overall quality of life. The Family Support Scale (FSS) is widely used internationally to measure perceived family support; however, no standardized Indonesian version has been available for elderly populations.

Objective: This study aimed to translate, culturally adapt, and evaluate the validity and reliability of the Family Support Scale (FSS) for Older People into the Indonesian language for use among the elderly.

Methods: A methodological design was applied using a standardized back-translation procedure encompassing forward translation, synthesis, blind back-translation, and expert harmonization. Fifty elderly respondents aged ≥ 60 years in Pekanbaru were recruited to assess the instrument's psychometric properties. Construct validity was evaluated through corrected item-total correlation, while reliability was measured using Cronbach's Alpha.

Results: All 20 items demonstrated acceptable corrected item-total correlation values (>0.30), indicating good construct validity. Reliability testing yielded a Cronbach's Alpha of 0.949, reflecting excellent internal consistency. The translation and cultural adaptation process successfully preserved semantic, cultural, and conceptual equivalence with the original instrument.

Conclusion: The Indonesian version of the FSS is valid and reliable for assessing perceived family support among the elderly in Indonesia. The instrument is suitable for use in clinical practice, community health assessments, and elderly-focused research. Future studies should include larger and more diverse samples and incorporate exploratory and confirmatory factor analyses to further strengthen the construct structure.

Background

The elderly population in Indonesia has increased significantly over the past few decades, marking a major demographic shift that influences national development. Recent data show that the proportion of elderly individuals has exceeded 10% of the total population and is projected to continue rising in the coming years (BPS, 2023). This increase is closely linked to improvements in healthcare, nutrition, and overall living conditions that support longevity (Boibalan, 2024 & Rekawati et al., 2025). As the number of elderly grows, various social, economic, and health challenges also become more complex and demand more specialized attention. One of the most critical implications of this demographic trend is the expanding need for comprehensive social support systems tailored to the elderly. Additionally, the healthcare system must adjust

to provide services that are more responsive and sensitive to age-related conditions. Therefore, understanding the needs and wellbeing of the elderly has become an essential priority for policymakers, healthcare providers, and community stakeholders.

Family support plays a central role in maintaining the wellbeing of the elderly by providing emotional, informational, instrumental, and appraisal assistance (Saputra et al, 2024 & Wilda, 2024). Numerous studies have demonstrated that strong family support contributes to lower stress levels and better psychological resilience among elderly individuals (Ramadhani et al., 2022; Panjaitan & Perangin-angin, 2020). This support also enhances independence, encourages adherence to treatment, and promotes healthier lifestyle behaviors. Emotional support helps the elderly feel valued and connected, while instrumental

support ensures that their daily needs are met effectively. Informational support guides the elderly in making appropriate health decisions, particularly in managing chronic illnesses. Appraisal support reinforces self-esteem by offering positive feedback and recognition of their abilities (Friedman et al., 2010). Collectively, these forms of support have been shown to improve both the physical and psychological health of the elderly, as documented in recent findings by Lewis SR et al. (2024) and Hong et al. (2023).

To measure perceptions of family support received by the elderly, a valid and reliable assessment instrument is necessary for research and practice. One widely used international instrument is the Family Support Scale (FSS), which evaluates the extent and types of support provided by family members (Uddin, 2019). However, since the FSS was originally developed in English, using it directly in Indonesia may lead to linguistic and cultural misinterpretations. An accurate translation is therefore essential to ensure that the instrument captures the intended meaning of each item in a culturally appropriate manner. Without proper adaptation, the responses of elderly participants may not truly reflect their experiences or perceptions. This highlights the importance of developing an Indonesian version that maintains conceptual equivalence with the original instrument. Consequently, cross-cultural adaptation of the FSS is a crucial step before its application in Indonesian settings.

The back-translation method is recognized as one of the most rigorous approaches for cross-cultural instrument adaptation and has been widely recommended in international guidelines (Beaton et al., 2000; WHO, 2022). This method ensures that translated items preserve both linguistic clarity and conceptual meaning from the original instrument. The process involves translating the instrument from the source language into the target language, followed by translating it back into the source language by independent translators. Comparing the original and back-translated versions allows researchers to identify discrepancies in meaning that require revision. This approach also helps ensure cultural relevance by adjusting terms or concepts that may not align with Indonesian social norms or elderly experiences. Prior studies have emphasized that back-translation enhances

consistency and reduces bias in the adaptation process (Epstein et al., 2015). Therefore, this method is widely regarded as essential for ensuring that an adapted instrument is suitable for use in diverse cultural contexts.

This study aims to translate and adapt the Family Support Scale (FSS) for Older People into Indonesian using the back-translation method to ensure linguistic and cultural equivalence. In addition, the study seeks to assess the validity and reliability of the Indonesian version of the FSS to ensure that it can accurately measure family support among the elderly in Indonesia. A validated instrument is crucial because it provides evidence-based tools for researchers and healthcare professionals working with elderly populations. The resulting Indonesian FSS is expected to be applicable in community nursing practice, geriatric assessments, and family-centered interventions. Furthermore, the instrument can support research aimed at identifying factors that influence elderly wellbeing in various settings. Its availability will strengthen the capacity of healthcare providers to design tailored interventions that address the specific support needs of elderly individuals. Ultimately, the validated Indonesian FSS can contribute to improving the overall welfare and quality of life of the elderly across Indonesia.

Methods

Study Design

This study employed a methodological research design focusing on instrument translation, cultural adaptation, and psychometric evaluation of the Family Support Scale (FSS) for Older People. A methodological design was chosen because it enables a systematic examination of measurement properties, including linguistic accuracy, semantic equivalence, and reliability. This design also supports the rigorous adaptation of self-report instruments across cultural contexts, ensuring conceptual consistency with the original version. The overall process followed recommended international guidelines for cross-cultural adaptation of questionnaires by Beaton et al. (2000) and the World Health Organization (WHO, 2022), which emphasize the importance of linguistic, cultural, and conceptual equivalence. The study was conducted in Pekanbaru and involved a sample

of elderly participants selected based on predefined inclusion criteria. This structured methodological approach ensured that each phase—from translation to validation—was executed according to scientific standards.

Family Support Scale (FSS)

The Family Support Scale (FSS) for Older People is a 20-item questionnaire developed to measure the extent and quality of family support perceived by elderly individuals. Each item represents one dimension of support, ranging from emotional and instrumental to informational and appraisal support. The items are scored on a 4-point Likert scale (0 = not at all, 1 = a little, 2 = moderately, 3 = a lot), allowing respondents to express the degree of support they receive. The original instrument demonstrated strong psychometric performance, with Cronbach's Alpha exceeding 0.90 (Uddin, 2019), indicating excellent internal consistency. Because the FSS was originally developed in English, cultural and linguistic differences required careful adaptation to ensure accurate interpretation by Indonesian elderly respondents. The goal was to produce an Indonesian version that preserved the meaning, functional equivalence, and conceptual clarity of the original instrument. This study therefore not only translated the items but also evaluated their validity and reliability in the Indonesian context.

Translation Process

The translation of the FSS followed the standardized back-translation method, also known as forward-backward translation, consisting of several structured phases to ensure accuracy and cultural relevance. First, two professional bilingual translators independently translated the original English version of the FSS into Indonesian (forward translation). These translators were instructed to produce translations that were conceptually accurate rather than literal, ensuring suitability for elderly respondents with diverse educational backgrounds. Second, both Indonesian versions were compared and synthesized into a single harmonized draft through a consensus meeting involving translators and the research team. This

synthesis ensured linguistic clarity while maintaining the conceptual essence of every item. Third, the harmonized Indonesian draft was back-translated into English by a third translator who was blinded to the original version, allowing assessment of discrepancies due strictly to translation choices rather than interpretation bias. Fourth, an expert panel consisting of nursing lecturers, public health experts, and gerontology specialists reviewed all versions to ensure semantic, idiomatic, experiential, and conceptual equivalence. Any inconsistencies or culturally inappropriate expressions were revised accordingly. This iterative process ensured that the final Indonesian version maintained fidelity to the original instrument while being linguistically accessible and culturally appropriate for the elderly population in Indonesia.

Pilot Testing

Pilot testing was conducted with 50 elderly respondents who met the inclusion criteria: aged 60 years or older, capable of reading Indonesian, and willing to provide written informed consent. This stage aimed to evaluate the clarity, comprehension, and psychometric properties of the Indonesian version of the FSS. Respondents were recruited from the working area of the Pekanbaru City Health Office using convenience sampling. During administration, participants were asked to read each item and indicate how much support they felt they received from their family based on the four response options. The pilot data were then analyzed using item-total correlation to assess construct validity and Cronbach's Alpha to assess reliability. All items demonstrated corrected item-total correlation values above 0.30, indicating adequate validity, and the overall Cronbach's Alpha was 0.949, demonstrating excellent internal consistency. Feedback from respondents also confirmed that the items were clearly understood, culturally relevant, and acceptable for use among Indonesian elderly. These findings indicated that the Indonesian version of the FSS is psychometrically sound and ready for broader application.

Ethical Consideration

Ethical approval for this study was obtained from the Faculty of Nursing Universitas Indonesia (KET - 292/ UN2. F12 .D1. 2.1/ PPM. 00.02/ 2024) ethics committee prior to data collection to ensure that all research procedures adhered to ethical standards for studies involving human participants. All elderly participants were informed about the purpose, procedures, benefits, and potential risks associated with the study. Participation was entirely voluntary, and respondents were assured that they could withdraw at any time without consequences. Written informed consent was obtained before administering the questionnaire, ensuring respect for autonomy and comprehension. Confidentiality was maintained by anonymizing all participant data and storing completed questionnaires securely. No identifying information was collected, and responses were used solely for research purposes. The ethical principles of beneficence, respect for persons, and justice guided all activities throughout the study to protect the wellbeing and rights of elderly participants.

Results

The characteristics of respondents provide an essential overview of the elderly participants involved in the psychometric testing of the Indonesian version of the Family Support Scale (FSS). Describing the demographic profile enables readers to understand the sample composition and its relevance to the broader elderly population in Indonesia. Demographic variables such as age, gender, marital status, education level, and occupation may influence the perception of family support, making these characteristics important for contextualizing the study findings. A total of 50 elderly individuals participated in this study, and their demographic distribution is presented in Table 1. By outlining the respondent characteristics, this section ensures transparency in sample representation and strengthens the interpretation of the instrument's validity and reliability. The demographic data also help assess whether the sample reflects typical elderly profiles encountered in community health settings. Table 1 below summarizes the demographic characteristics of the participants.

Table 1. Respondent Characteristics

Variable s	Frequency (n)	Percent (%)
Age		
60-69 years	31	62
70-79 years	14	28
≥80 years	5	10
Gender		
Male	17	34
Female	33	66
Marital Status		
Married	15	30
Never married	-	-
Widowed	26	52
Divorced/widower	9	18
Education Level		
Primary education	17	34
Secondary education	25	50
Higher education	8	16
Occupation		
Civil servant, military, police, or stated employed	11	22
Entrepreneur	10	20
Private employee	9	18
Housewife	20	40

The demographic profile in Table 1 indicates that the study sample is representative of typical elderly populations in urban community

settings in Indonesia. The predominance of respondents aged 60–69 years suggests that many participants were in the younger elderly

category, which may influence higher comprehension and more consistent questionnaire responses. The higher number of female respondents aligns with national demographic trends, where women generally have longer life expectancy. The large proportion of widowed respondents reflects common social patterns among the elderly, particularly due to increased longevity and spousal loss. Educational levels concentrated in the primary and secondary categories indicate that the questionnaire must remain linguistically accessible, supporting the

importance of culturally and linguistically sensitive translation. The substantial number of housewives among respondents illustrates the traditional gender roles within elderly Indonesian populations and may reflect greater availability to participate in community-based studies. Overall, the characteristics of respondents confirm that the translated FSS was tested on a demographically appropriate sample, supporting the relevance and applicability of the instrument for broader elderly populations in Indonesia.

Table 2. Item–Level Validity and Reliability Results

Item	Statement	Corrected Item- Total Correlation	Cronbach's Alpha
1	Keluarga saya menyayangi saya	.560	.948
2	Saya mendapatkan rasa hormat dari keluarga saya	.617	.948
3	Keluarga saya membantu saya dalam kegiatan sehari-hari	.674	.947
4	Keluarga saya membantu saya dalam kegiatan keagamaan	.773	.945
5	Keluarga saya memberikan saya informasi yang berguna	.726	.946
6	Keluarga saya memberikan saya dukungan emosional	.619	.948
7	Keluarga saya berbagi keputusan penting dengan saya	.608	.948
8	Keluarga saya memahami keinginan pribadi saya	.768	.945
9	Keluarga saya membantu saya berpartisipasi dalam acara-acara sosial	.793	.945
10	Keluarga saya mendengarkan masalah saya	.528	.949
11	Keluarga saya membantu menyelesaikan masalah saya	.726	.946
12	Keluarga saya peduli akan kesehatan saya	.803	.945
13	Keluarga saya membantu dalam perawatan saya	.601	.949
14	Keluarga saya memperlakukan saya sebagai orang penting	.584	.948
15	Keluarga saya memberi saya uang ketika saya membutuhkannya	.721	.946
16	Keluarga saya berhati-hati dengan makanan saya	.732	.946
17	Keluarga saya sangat memperhatikan tidur saya	.677	.947
18	Keluarga saya memberi saya persahabatan	.655	.947
19	Keluarga saya membantu saya untuk tetap bahagia	.694	.946
20	Saya puas dengan dukungan keluarga saya	.775	.945
Total			.951

Table 2 presents the results of the item-level validity and reliability testing of the Indonesian version of the Family Support Scale (FSS). The table summarizes the Corrected Item–Total Correlation values, which indicate the strength of the relationship between each item and the overall scale, as well as the Cronbach’s Alpha if Item Deleted, which reflects each item’s contribution to internal consistency. These indices are essential for evaluating whether each statement reliably measures the construct of family support among elderly respondents.

The values in Table 2 allow for a systematic assessment of item performance, identification of items that may require revision, and confirmation of the overall coherence of the scale. As methodological studies require empirical evidence of measurement quality, the results in Table 2 provide strong foundational support for determining the adequacy of the translated instrument. The following table details the psychometric results for all 20 items.

All 20 items of the Indonesian version of the Family Support Scale demonstrated satisfactory psychometric properties. The Corrected Item-Total Correlation values ranged from .528 to .803, with all items exceeding the minimum acceptable threshold of .30, indicating adequate item validity. Items such as “Keluarga saya peduli akan kesehatan saya” (.803) and “Keluarga saya membantu saya berpartisipasi dalam acara-acara sosial” (.793) showed the strongest correlations, suggesting they align closely with the overall construct. Meanwhile, items with lower correlation values, such as “Keluarga saya mendengarkan masalah saya” (.528), still met the validity criteria and supported their retention in the scale. The Cronbach’s Alpha if Item Deleted values ranged from .945 to .949, demonstrating that the removal of any single item would not significantly improve reliability. The overall Cronbach’s Alpha for the scale was .951, confirming excellent internal consistency. These results affirm that all items are functioning well and collectively contribute to the reliability of the instrument.

The results in Table 2 indicate that the Indonesian version of the Family Support Scale possesses strong psychometric quality at the item level. All items surpassed the standard criterion for Corrected Item-Total Correlation ($> .30$), demonstrating that each statement consistently reflects the underlying construct of perceived family support among the elderly. Items with the highest correlation values capture core dimensions of family support, such as attention to health, social participation, and emotional care, highlighting their central role in the lived experiences of Indonesian elderly. The small variation in Cronbach’s Alpha if Item Deleted values (.945–.949) suggests that each item contributes meaningfully to the scale, and no item undermines internal consistency. The overall Cronbach’s Alpha of .951 further reinforces that the scale is highly reliable and exhibits excellent coherence across items. Taken together, these findings confirm that the translated FSS is both valid and reliable, supporting its use as a robust instrument for assessing family support in Indonesian elderly populations.

Discussion

The findings of this study demonstrate strong construct validity of the Indonesian version of the Family Support Scale (FSS), as reflected by the high corrected item–total correlation values across all items. These results align with the core theory of family nursing, which emphasizes four domains of support—emotional, instrumental, informational, and appraisal (Friedman et al., 2010). The ability of elderly respondents to recognize these various forms of support suggests that the instrument successfully captured culturally meaningful expressions of family involvement. Consistent with Lin et al. (2020), strong family support contributes to reduced stress and improved psychological wellbeing among older adults, further confirming the theoretical relevance of the adapted items.

The strong psychometric performance of the Indonesian version of the FSS is also consistent with the original English version developed by Uddin (2019). In that study, the FSS demonstrated excellent reliability with a Cronbach’s Alpha of 0.91, accompanied by consistently valid item correlations. The similarity in reliability scores between the original scale and the Indonesian version indicates that the cultural adaptation process preserved the core measurement properties of the instrument. This suggests that essential concepts embedded in the original items—such as care, decision sharing, emotional closeness, and practical involvement—maintained their meaning when translated and applied within the Indonesian context. Such consistency supports the robustness of the instrument across different cultural settings.

Additional evidence of the strength of the adaptation process is supported by findings from other validation research, such as the study conducted by Az-Zahrah et al. (2025), which validated the Multidimensional Scale of Perceived Social Support (MSPSS). Their study also reported high reliability (Cronbach’s Alpha > 0.90) and universally valid items, demonstrating that cross-cultural adaptation can yield highly reliable psychosocial instruments when executed rigorously. This

cross-study consistency reinforces the notion that structured adaptation methods—particularly when combining linguistic translation with cultural review—are essential for developing precise measurement tools in local contexts. The success of multiple instrument adaptations across different studies strengthens confidence in applying similar methodologies to family-support-related scales.

In the Indonesian cultural context, family support is particularly crucial due to the strong collectivist and familistic values that characterize the society. Elderly individuals rely heavily on their family members—especially adult children and spouses—for emotional, financial, and daily living support. Solihin et al. (2023) highlighted that emotional support from family plays a substantial role in sustaining social participation and daily functioning among older adults. Therefore, the availability of a culturally adapted and psychometrically sound instrument such as the Indonesian FSS is essential for accurately capturing these deeply rooted patterns of intergenerational care. Without such an instrument, assessments of elderly wellbeing may overlook the most influential source of support in Indonesia: the family unit.

The rigorous back-translation methodology used in this study played a key role in ensuring that the Indonesian FSS remained conceptually and semantically aligned with the original instrument. Following Beaton et al. (2000) and WHO guidelines, the process incorporated forward translation, synthesis, blind back-translation, and expert harmonization. Similar recommendations by Speyer et al. (2019) and Susini & Ana (2024) underscore that two-way translation enhances semantic equivalence and cultural relevance. The expert panel review ensured that each item was not only linguistically accurate but also aligned with Indonesian cultural norms regarding family roles and elderly care. As a result, the translated items appropriately reflected local expressions of family support without altering the underlying constructs.

The reliability results further support the overall quality of the adapted FSS. The

Cronbach's Alpha of 0.949 places the instrument in the category of "excellent internal consistency," exceeding the commonly accepted threshold of 0.90 for high reliability (Xin et al., 2025). This demonstrates that the items consistently measure the same construct and function well together as a unified scale. The uniformly high "Alpha if Item Deleted" values also indicate that no item detracted from the reliability of the instrument. Such consistency is particularly important for instruments assessing psychosocial constructs, where subtle differences in wording or cultural interpretation can affect item performance.

With its validated reliability and construct validity, the Indonesian version of the FSS holds significant potential for use in both research and clinical practice. In community nursing, the instrument can support initial assessments, monitor family involvement, and guide care planning for elderly individuals. It can also be employed in program evaluations, such as family support interventions or community-based aging programs, to measure changes in perceived support over time. Additionally, the scale provides researchers with a robust tool for examining the impact of family dynamics on health outcomes, quality of life, treatment adherence, and psychological wellbeing in older adults. By enabling accurate measurement, the Indonesian FSS contributes to the broader goal of improving elderly care through evidence-based, family-centered approaches.

Conclusion and Recommendation

The Family Support Scale (FSS) for Older People was successfully translated into Indonesian and demonstrated strong psychometric properties, with evidence of both validity and excellent reliability. The availability of this culturally adapted instrument enables accurate assessment of family support among the elderly across various healthcare and research settings in Indonesia. As a validated tool, the Indonesian FSS can be widely utilized by researchers and healthcare practitioners to support promotive and preventive efforts, and to strengthen family-centered interventions aimed at improving elderly wellbeing.

Future research is recommended to involve larger and more diverse samples across

multiple regions in Indonesia to enhance generalizability. Additional validation procedures such as exploratory and confirmatory factor analyses are also suggested to further reinforce the structural construct of the instrument. Through continued refinement and wider application, the Indonesian version of the FSS holds significant potential to advance gerontological nursing practice, public health research, and evidence-based elderly care in Indonesia.

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Declaration of conflict of interest

The authors declare no competing interests.

Declaration on the Use of AI

No AI tools were used in the preparation of this manuscript.

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