JHNS
Journal of Holistic Nursing Science
E-ISSN: 2579-7751 P-ISSN: 2579-8472
Journal of Holistic Nursing Science

Article journey
Submitted
1/10/2025
Revised
23/11/2025
Accepted
13/12/2025
Online first
18/2/2026

QUANTITATIVE STUDIES

Cross-cultural adaptation and psychometric testing of the Indonesian version of the decisional conflict scale in patients with type 2 diabetes

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https://doi.org/10.31603/jhns.v13i1.14945

Abstract
As an expression of uncertainty in health-related decision-making, decisional conflict serves as a barrier to optimal patient engagement, adherence, and satisfaction. The Decisional Conflict Scale (DCS) is used to measure this construct, but no validated Indonesian version exists. The high prevalence of type 2 diabetes (T2D) in Indonesia occurs within a societal framework where decision-making is shaped by collectivist values. Thereupon, the absence of an adapted tool limits the ability of healthcare professionals to identify and address decisional conflict. Hence, the study aimed to conduct a cross-cultural adaptation and evaluate the psychometric properties of the Indonesian version of the DCS among patients with T2D. A quantitative research design was utilized to address the study's objectives. Data collection was conducted from 16 April to 10 August 2025. The permission of using the DCS was obtained from the original developer in February 2022. The original English of the DCS was translated into Bahasa, including forward-backwards translation, expert panel review, and pre-testing. Ethical approval was obtained before the study began. In the subsequent stage, a cross-sectional survey was then conducted among 146 patients with T2D attending outpatient from RS PKU Muhammadiyah Yogyakarta, Indonesia. Statistical testing included assessments of construct validity, internal consistency, test-retest reliability, and exploratory factor analysis. The Indonesian version of the DCS demonstrated good face and content validity. Factor analysis supported a structure consistent with the original scale. Also, internal consistency was high across all subscales, and test-retest reliability was acceptable. The scale showed significant correlations with informed, support, uncertainty, values clarity, and effective decision supporting construct validity. The Indonesian version of the DCS is a valid and reliable tool for assessing decision conflict among Indonesian-speaking patients with T2D.

Keywords: Cross-cultural adaptation, Decisional Conflict Scale, Indonesia, psychometric testing, type 2 diabetes

Introduction

Decisional conflict is personal uncertainty about which course of action to take when choice among competing options involving regret, risk, or challenge to personal life values (LeBlanc et al., 2009; Légaré et al., 2012). At this present, decisional conflict is becoming an important clinical issue in chronic disease management including diabetes care (Sabin et al., 2024). Though decisional conflict arises, it is pronounced among patients who must make treatment choices involving risk–benefit considerations, lifestyle modification, medication adherence, and family expectations (Nikitara et al., 2024; Montori et al., 2023). In other perception highlighted that unresolved decisional conflict has been associated with delayed decision-making, emotional distress, and poor treatment adherence (DePasquale et al., 2022). Consequently, assessing the conflict is an essential component of person-centered and shared decision-making (SDM) practices. Based on the underlying theoretical framework, the decisional conflict is grounded in Conflict Theory Model (Janis & Mann, 1977) and further advanced through the Ottawa Decision Support Framework (ODSF) (O'Connor, 1995). The ODSF identifies modifiable factors that contribute to decisional conflict, including inadequate knowledge, unclear values, unrealistic expectations, social pressure, and insufficient support (Stacey et al., 2020). To operationalize these components, O'Connor developed the Decisional Conflict Scale (DCS), which has demonstrated strong psychometric properties across numerous countries and clinical populations. For instance, the scale has been validated among oncology patients in the Netherlands (Koedoot et al., 2001), women with breast cancer in China (Lam et al., 2015), and adults facing major medical decisions in North America and Europe (Garvelink et al., 2019). Even with its broad global

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Journal of Holistic Nursing Science
E-ISSN: 2579-7751 P-ISSN: 2579-8472

implementation, a validated Indonesian version of the DCS does not currently exist, representing a gap in both research and clinical practice. The gap is critical given Indonesia's increasing burden of type 2 diabetes (T2D). This phenomenon serves as a call to action for nursing researchers to analyze instruments suitable for the Indonesian context.

A study documented that the prevalence of diabetes rose from 10.7% (10.2% to 11.2%) in 2013 to 11.8% (11.3% to 12.3%) in 2018, before declining to 11.3% (10.7% to 11.9%) in 2023 (Muharram et al., 2025). Meanwhile, pre-diabetes prevalence decreased from 44.5% (43.6% to 45.3%) in 2013 to 39.2% (38.0% to 40.3%) in 2023 (Muharram et al., 2025). Patients with T2D commonly experience complications such as neuropathy, retinopathy, and cardiovascular disease, requiring them to make repeated decisions related to treatments (Soewondo et al., 2013; Nikpour et al., 2022). Additionally, healthcare decisions in Indonesia are often shaped by familial consensus and a continued reliance on the professional judgment of healthcare providers (Cipta et al., 2024). Integrating these dynamics into care plans is essential for long-term success because the management of T2D places growing emphasis on lifestyle modification, long-term pharmacological treatment, and consistent self-care behaviors (Setyamarta & Aryani, 2020; Soewondo et al., 2013). Moreover, such sociocultural dynamics can heighten decisional conflict by creating tension between personal preferences, family expectations, and clinical recommendations. Studies in countries with similar cultural characteristics (e.g. China, Japan, and Malaysia) reported comparable patterns and have used the DCS to identify decision-making barriers and support SDM interventions (Kawaguchi et al., 2013; Lam et al., 2015; Zhai et al., 2022). These studies suggest that nursing professionals within this jurisdiction may employ validated tools to maximize the efficacy of therapeutic choices for the patient with T2D.

Although several instruments exist to evaluate decision-making processes, including the Decisional Self-Efficacy Scale and the SDM Questionnaire, these tools do not specifically measure the multidimensional construct of decisional conflict nor align directly with the ODSF. Hence, it may be inferred that the DCS remains the most validated and theoretically grounded instrument for capturing uncertainty, values clarity, support, and decision satisfaction (Garvelink et al., 2019). In the absence of an Indonesian version, clinicians, nurses, and researchers lack a systematic method for identifying decisional needs or evaluating the effectiveness of decision-support interventions (Yoon et al., 2024). Given these gaps, there is a pressing need to develop an Indonesian version of the DCS. Such an instrument would enable healthcare professionals to assess decisional conflict accurately, promote decision support, enhance patient engagement, and strengthen SDM practices. Moreover, a validated Indonesian DCS would contribute to global literature by expanding evidence on the scale's applicability across diverse linguistic and cultural contexts. Therefore, the study aimed to translate, adapt, and evaluate the psychometric properties of the Indonesian version of the DCS among patients with T2D. The findings are expected to support clinical decision-support strategies, advance evidence-based nursing practice, and provide a measure for future research in Indonesia and other multicultural settings. The cross-cultural adaptation and psychometric testing of the Indonesian version of the DCS provides government and healthcare policy makers with a tool to assess the quality of care and identify gaps in patient education within the national healthcare system. The instrument can quantify intervention efficacy, justify resource allocation, and reduce healthcare costs by improving adherence through confident patient choices.

Method

The study employed an observational design with cross-sectional methodological approach to reach the objective of the study. The researchers used psychometric testing and cross-cultural adaptation of the DCS into the Indonesian version. Prior to the commencement of the study, formal permission to utilize the DCS was obtained from the original developer in February 2022. Data collection was conducted from 16 April to 10 August 2025. Following the STROBE Checklist guidelines, the research team recruited a sufficient sample size to translate, adapt, and psychometrically evaluate the Indonesian version of the DCS. Participants were recruited from the outpatients in the RS PKU Muhammadiyah Yogyakarta Indonesia using convenience sampling. The inclusion criteria were a diagnosis of T2D for at least six months, able to read and write in the Indonesian language. Exclusion criteria included inability to communicate, severe physical dysfunction such as inability to perform activities of daily living, muscular frailty, or blindness, and physician-diagnosed serious mental health problems, such as schizophrenia, hallucinations, or delusions that interfered with completing the instrument. Sample size was determined using G*Power version 3.1, which indicated that 146 participants were required based on an alpha level of 0.05, a power of 0.80, and a medium effect size of 0.15. The calculation confirmed that the sample size was adequate to perform the planned analyses.

After obtaining the permission from the original development, the research team conducted the translation process in multiple stages, as delineated in the existing literature (Lam et al., 2015; Beaton et al., 2000). The cross-cultural adaptation of the DCS was conducted in six systematic stages. Initially, two bilingual Indonesian translators

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independently translated the original English instrument into Indonesian, identifying and addressing ambiguous terminology. During the second stage, these versions were synthesized into a single Indonesian draft by the translators and an observer, with the entire process meticulously documented. In the third stage, two independent translators—unaware of the original scale—back-translated the synthesized version into English to ensure semantic equivalence. The process continued with stages four and five, involving an expert committee review by three diabetes specialists (one clinician and two academics) and subsequent pre-testing with diabetes patients to refine wording for clarity. Finally, in stage six, the adapted Indonesian version was submitted to the original instrument developers for appraisal and formal confirmation of the adaptation process.

Content validity was assessed using the Content Validity Index (CVI), reviewed by three experts, one in the clinical setting and two in the academic setting, who have a specialist in diabetes. They were asked to rate the feasibility and relevance of each item on a scale from 1 (irrelevant) to 4 (highly relevant). The CVI of the scale was calculated by dividing the number of items rated 3 or 4 by the total number of items. Meanwhile, construct validity was examined through exploratory factor analysis (EFA) using principal component analysis with varimax rotation, and confirmatory factor analysis (CFA) using maximum likelihood estimation. Goodness-of-fit indices included χ^2, Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). Acceptable thresholds were CFI/TLI≥0.90, RMSEA≤0.08, and SRMR≤0.08. Then, the internal consistency was assessed using Cronbach's alpha. Acceptable values were considered between 0.70-0.95 (Taber, 2018). Test-retest reliability was evaluated with a subsample of 146 participants who repeated the DCS two weeks later. Reliability was assessed using the intraclass correlation coefficient (ICC) ≤0.50 (poor), 0.51-0.75 (moderate), 0.76-0.90 (good), and ≥0.90 (excellent) (Koo & Li, 2016). Item analysis was performed to assess the quality and performance of each test item.

The analysis aimed to identify items that were too easy or too difficult, lacked discrimination, or contained non-functional distractors. The procedure followed established psychometric guidelines (Schreyer Institute for Teaching Excellence, 2023). Test administration and scoring were carried out under standardized conditions to ensure consistency across participants. The instrument was administered to a representative sample of respondents under standardized conditions. Responses were scored for multiple-choice items and numerically for Likert-scale items. The data were organized into a person-by-item matrix prior to analysis. Item difficulty (*p*-value) was calculated as the proportion of respondents who answered each item correctly. Items with a high *p*-value (>0.80) were considered too easy, while those with a low *p*-value (<0.20) were regarded as too difficult. Items with moderate difficulty (p=0.30-0.70) were classified as acceptable (Rashwan et al., 2024). Discrimination index was used to determine how each item differentiated between high- and low-performing respondents. Participants were divided into upper and lower 27% groups based on total test scores, and the discrimination index was computed using the formula: D=PH-PL, where PH represents the proportion of correct responses in the high-scoring group and PL represents the proportion in the low-scoring group. Items with D≥0.30 were considered satisfactory, whereas items with D<0.20 were recommended for revision or elimination (Allen & Yen, 2002; Rashwan et al., 2024). Item-total correlations were calculated to examine the relationship between each item and the total test score (excluding the item itself). Items with low or negative correlations (r<0.30) were flagged for review, as they might not be consistent with the overall construct being measured (Allen & Yen, 2002). Regarding multiple-choice items, distractor efficiency was examined by analyzing the frequency of selection for each incorrect option. Distractors chosen by fewer than 5% of respondents were considered non-functional and were revised. Effective distractors were expected to attract lower-scoring respondents more frequently than higher-scoring ones (Rashwan et al., 2024). Regarding interpretation and revision, items identified as too difficult, too easy, or poorly discriminating were reviewed for possible revision or removal. Statistical findings were interpreted alongside content considerations to ensure conceptual alignment and coverage of the intended construct. The revised version of the instrument was finalized for subsequent administration.

The study was approved by the Ethics Committee of the National Hospital Review Board (Approval No. 00123/KT.7.4/IV/2025). All participants provided informed consent, were assured of anonymity and confidentiality, and were informed of their right to withdraw at any time without affecting their medical care. Ethical principles in the study were addressed to protect the participants, data integrity, and validity result. Core principles include justice, autonomy, informed consent, beneficence, confidentiality, and integrity (Jean-Pierre et al., 2025).

Results

The table reveals that most participants are aged 36 or older, with the highest proportions in the ≥65 group. Nearly half of the participants have only elementary education, and fewer than 15% have university-level education. The majority of the

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participants were female, married, not employed, and have been living with the condition for ≤5 years. The participants managed one or more complications, and over half are using combination treatment **(Table 1)**. The result of the translation is the identification term “matter most” and “clear”. In this stage, there are specific aspects to consider as follows whether the experts have the same ability to understand the DCS questions and the diabetes empowerment process instruments. Another aspect is the most common problems in completing the DCS and diabetes empowerment process instruments. The next suggestion to consider is changing the wording to be more general. In this process, two wordings in the DCS instruments were revised: "*paling penting*" (meaning: matter most) was revised to "*paling berarti*" (meaning: meaningful) and "*jelas*" (meaning: clear) to "*faham*" (meaning: understand) the alternative Indonesian words more commonly understood by participants. At the end of the process, the Indonesian version of the DCS instruments were revised based on all the comments received and the problems observed.

Content validity was assessed by using the CVI. The CVI scores of the DCS was 0.96. Furthermore, the ICC value of the Indonesian version of the DCS was 0.84. The discriminant validity showed a strong correlation between items. This indicates that the DCS was acceptable and valid for future studies **(Table 2)**. Furthermore, the testing results of construct validity and reliability for the DCS showed an average of 0.90. This indicates that the DCS had good construct validity **(Table 3)**. The table reveals that EFA of the Indonesian version of the DCS shows that each factor groups together conceptually similar items, aligning with the original subscales of the DCS. The structure and factor loadings are consistent with what one would expect in a well-defined five-factor model. The EFA confirms the hypothesized structure of the scale, with clear item-to-factor loadings and minimal cross-loadings. These analyses confirmed that the Indonesian DCS retained the five-factor structure of the original instrument with items loading onto their respective subscales and acceptable model fit indices supporting construct validity **(Table 4; Figure 1)**.

The figure shows that the subscale Informed (latent variable=0.343) is connected to item 1, item 2, Item 3 with a path coefficient from DCS=0.585. The second subscale, values clarity (latent variable=0.529), is connected to Item 4, Item 5, Item 6 with a path coefficient of 0.727. The third subscale, support (latent variable=0.536), is connected to Item 7, Item 8, Item 9 with a path coefficient of 0.732. The fourth subscale, uncertainty (latent variable=0.540), is connected to Item 10, Item 11, Item 12 with a path coefficient of 0.735. The final subscale, effective decision (latent variable=0.316), is connected to Item 13, Item 14, Item 15, Item 16 with a path coefficient of 0.562. The results indicate that the numbers inside the circles represent R^2 values (variance explained) for each latent construct. Arrows between constructs represent path coefficients (standardized regression weights), indicating the strength of influence. Higher item loadings suggest stronger associations between the item and its latent construct **(Figure 1)**.

Discussion

The Indonesian version of the DCS exhibited high validity and reliability, confirming its suitability for clinical and community use. Furthermore, the original version of this instrument remains a viable and valuable tool for use in other international contexts (Bailey et al., 2016; Branda et al., 2013). The findings of this study indicate that the majority of participants were female and had been living with diabetes for more than five years. A study supported that the global burden of women's health is underestimated, with diabetes disproportionately impacting women due to unequal healthcare access, sex-specific health conditions, and underrepresentation in clinical trials (Shi et al., 2025). Therefore, nurses must devote greater attention to high-risk female populations through screening protocols (O'Flynn, 2022). Furthermore, the integration of the DCS is essential for identifying and addressing the decisional conflicts associated with treatment choices.

This rigorous process of cross-cultural adaptation ensured semantic, idiomatic, experiential, and conceptual equivalence between the original English and Indonesian versions. During the adaptation process, minor linguistic adjustments were necessary to reflect cultural norms around decision-making in the Indonesian context, particularly considering the often collectivist decision-making model involving family members. In diabetes management, the family unit serves as the primary support system, directly influencing the patient’s clinical outcomes and decision-making process (Jordan et al., 2024; Mphasha et al., 2022; Tang et al., 2023). This importance is rooted in the fact that diabetes care is 95% self-management, much of which occurs within the home environment where lifestyle habits are shared (Wilson, 2021). Family members act as informal caregivers who facilitate adherence to complex medication regimens and monitor for signs of acute complications, such as hypoglycemia or hyperglycemia (Teli et al., 2024). Family involvement can mitigate this stress and prevent decisional conflict during the care. Conversely, in many cultures, including Indonesia, healthcare decisions are often collective rather than individual. Hence, involving family members in the "decisional conflict" process ensures that treatment plans are congruent and sustainable. With educating the family,

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healthcare providers create an extended care team that warrants the patient remains engaged with treatment goals outside the clinical setting.

A similar translation in Chinese version and Dutch version has a good validity and reliability in cancer patients (Lam et al., 2015). This suggests that the DCS is also applicable to patients with cancer who also categorized in chronic illness. The psychometric evaluation in this study incorporated multiple complementary methods to confirm the robustness of the Indonesian DCS. The strong internal consistency aligns with established thresholds for health measurement instruments (Tavakol & Dennick, 2011). These results mirror findings from previous validation studies across diverse populations (Koedoot et al., 2001; O'Connor, 1995). Furthermore, the CFA demonstrated an acceptable model fit, supporting the theoretical five-domain structure of the original scale and providing evidence of construct validity within the Indonesian T2D population. Furthermore, the cross-cultural stability of the DCS across Indonesian, Chinese, and Dutch contexts emphasizes its versatility as a global benchmark for measuring patient uncertainty. The consistency suggests that despite diverse cultural paradigms in healthcare, the underlying psychological constructs of decision-making remain universal. The research fills a vital void in local clinical practice and offers a mechanism to quantify the burden of choices faced by patients with T2D. The precision of the tool enables nurses to identify specific domains where a patient's conflict is most acute. Such assessments allow for the implementation of decision-support interventions that can lessen decisional regret in the long term. Moreover, because T2D and cancer share the commonality of being high-stakes chronic conditions, the scale's utility extends to complex therapeutic transitions where the risk of patient burnout is substantial (McFarland & Hlubocky, 2021). Integrating the instrument into routine Indonesian clinical workflows could transform the quality of patient-provider communication by grounding it in objective data. It also paves the way for future research to track how decisional conflict fluctuates alongside disease progression or the introduction of new pharmacotherapies. The adoption of this validated scale empowers patients to participate in their care and decision-making process in diabetes care.

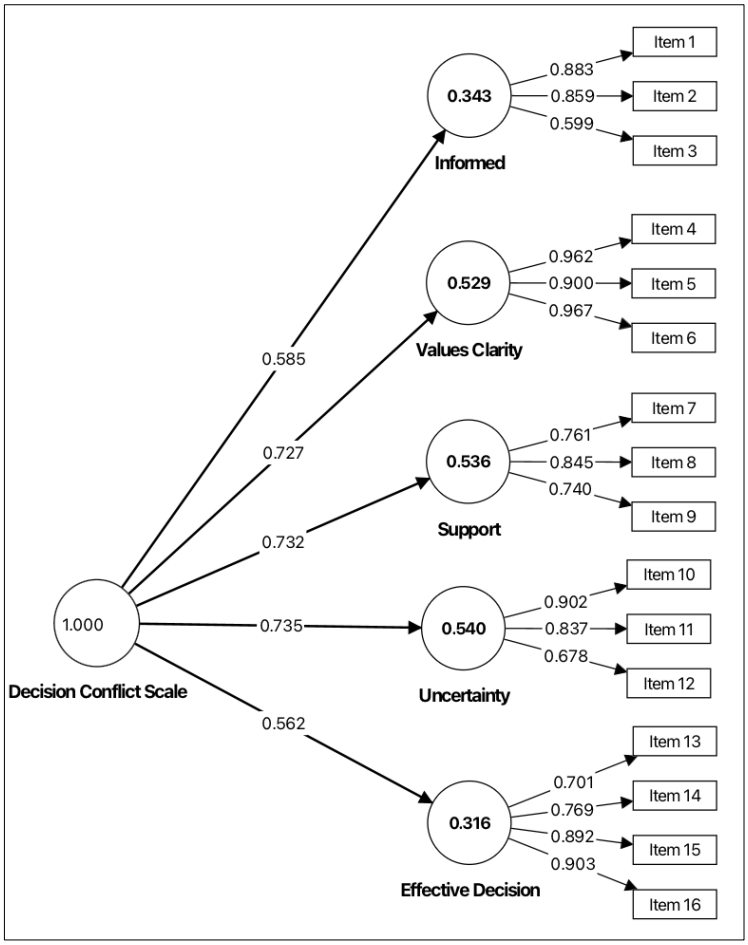

Figure 1. CFA of Indonesian version of the DCS (Generated by authors).

The factor loadings, AVE, and composite reliability values were all within recommended ranges, reinforcing the internal structure and dimensionality of the instrument (Hair et al., 2019). Moreover, the discriminant and convergent validity results confirmed that the scale appropriately differentiates between related and unrelated constructs, strengthening the psychometric soundness of the Indonesian version of the DCS. Moreover, the scale's discriminant and convergent validity were supported by moderate correlations with related constructs such as decisional self-efficacy and treatment satisfaction (Garvelink et al., 2019). These findings indicate that the Indonesian version of the DCS captures the experience of decision conflict in this population, which is critical given the chronic and self-management intensive nature of T2D. Cultural distinctions indicated that Indonesian patients may express decisional conflict more indirectly, influenced by deference to healthcare providers and family involvement. These findings underscore the importance of instruments when implementing SDM interventions. Moreover, the results also reflect the growing recognition that patient autonomy and involvement in treatment decisions are valued in Indonesian healthcare, particularly in urban and tertiary care settings. Patient autonomy in diabetes means individuals have the right to make informed choices about their care, rather than passively following instructions (Sallay et al., 2021; Sarfo et al., 2023). This involves actively

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participating in decisions about medication, diet, exercise, and lifestyle changes then ensure that the treatment line up with personal values and goals.

Table 1. Demographic characteristics of the participants.

Variables	Frequency (n)	Percentage (%)
Age (years) (M ± SD=59.5±13.11)		
≤35	4	2.7
36–55	53	36.3
56–65	36	24.7
≥65	53	36.3
Gender		
Male	52	35.6
Female	94	64.4
Levels of education		
Elementary school	69	47.3
Primary high school	16	11.0
Senior high school	40	27.4
University or above	21	14.4
Employment status		
Employed	45	30.8
Not employed	65	44.5
Retired	4	2.7
Housewife	32	21.9
Marital status		
Married	143	97.9
Not married	3	2.1
Duration of diagnosis (years) (M±SD=1.54±0.67)		
≤5	82	56.2
6–14	49	33.6
≥15	15	10.3
Complication levels		
No complication	3	2.1
One complication	42	28.8
Two complications	65	44.5
Three or more complications	36	24.7
Treatment types		
Oral	61	41.8
Insulin	9	6.2
Oral + Insulin	76	52.1

Table 2. Discriminant validity.

Variables	Effective decision	Informed	Support	Uncertainty	Values clarity
Effective decision	0.60**				
Informed	0.70**	0.17**			
Support	0.83**	0.52**	0.47**		
Uncertainty	0.86**	0.45**	0.33**	0.17**	
Values clarity	0.75**	0.12**	0.18**	0.50**	0.47**

**: $p<0.01$.

The psychometric findings of the study contribute to the broader literature on cross-cultural validation of decision-support tools. Similar validation efforts in Japan and China have demonstrated that culturally adapted versions of the DCS can reliably assess decision-making challenges across diverse populations (Lam et al., 2015; Kawaguchi et al.,

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E-ISSN: 2579-7751 P-ISSN: 2579-8472

2013). The current findings extend this evidence to the Indonesian context, supporting the cross-cultural applicability of the instrument. However, several limitations should be acknowledged during study. For instance, the participants were recruited from urban tertiary care centers, which may limit the generalizability of the findings. This is because healthcare decision-making dynamics may differ in rural areas or among populations with lower educational backgrounds. Moreover, the cross-sectional nature of psychometric testing precluded the assessment of longitudinal properties, such as test-retest reliability over time or responsiveness to change. Differences in education level, health literacy, and digital literacy may also influence how decisional conflict is experienced and reported. These factors were not examined in depth and should be considered in future psychometric evaluations. Additionally, expanding validation to other chronic conditions beyond T2D may broaden the utility of the Indonesian DCS as a decision-support assessment tool across the healthcare system.

Table 3. Construct reliability and validity.

Factors	Cronbach's alpha	Composite reliability	Composite reliability	AVE*
Effective decision	0.84	0.87	0.89	0.67
Informed	0.68	0.74	0.83	0.63
Support	0.69	0.71	0.82	0.61
Uncertainty	0.73	0.74	0.85	0.65
Values clarity	0.94	0.94	0.96	0.90

*AVE: Average Variance Extracted.

Table 4. Descriptive statistics and factor loading.

Factors / Items	Mean	SD	Factor loading
Informed			
I know which options are available to me	1.36	0.67	0.71
I know the benefits of each option	1.23	0.42	0.66
I know the risks and side effects of each option	1.00	0.47	0.86
Values clarity			
I understand which benefits are meaningful to me	1.17	0.77	0.89
I understand which risks and side effects are meaningful to me	1.13	0.80	0.90
I understand what is more important to me (benefits or risks)	1.08	0.78	0.81
Support			
I have enough support from others to make a choice	1.00	0.68	0.70
I am choosing without pressure from others	1.18	0.65	0.79
I have enough advice to make a choice	1.15	0.69	0.80
Uncertainty			
I understand the best choice for me	1.00	0.71	0.82
I feel sure about what to choose	1.04	0.65	0.82
This decision is easy for me to make	1.28	0.56	0.51
Effective decision			
I feel I have made an informed choice	1.12	0.62	0.66
My decision shows what is important to me	0.95	0.57	0.83
I expect to stick with my decision	0.86	0.59	0.82
I am satisfied with my decision	0.84	0.37	0.96

Conclusion

The availability of the Indonesian version of the DCS serves as a key instrument for healthcare professionals to assess decision-making difficulties among patients with T2D. The scale can be integrated into SDM initiatives, decision aids, and patient education programs. Future research should examine the tool's applicability in diverse clinical contexts, including primary care, rural settings, and among patients managing other chronic illnesses. Furthermore, future studies may explore how cultural values and health literacy influence decisional conflict and patient engagement in diabetes care in Indonesia. These insights could inform the development of decision support interventions that empower patients. In addition, intervention studies using the Indonesian DCS as an outcome measure may help evaluate the effectiveness of SDM training,

digital decision aids, or nurse-led counseling models. Such research would support evidence-based practice and policy development aimed at improving chronic disease management in Indonesia.

Acknowledgments
The study was supported by the Institute for Research and Community Service of Universitas 'Aisyiyah Yogyakarta, Indonesia under Award Number 42KR-UNISA/Au/II/2025. The authors acknowledge the contributions of all participants during the research.

AI statements
During the preparation of this work, the authors utilized Grammarly to enhance manuscript readability. After using this tool/service, the authors reviewed and edited the content as needed and took full responsibility for the content of the publication.

Author's declaration
All authors contributed to the conceptualization of the research topic, the implementation of the study, data analysis, and the drafting of the manuscript for publication.

Availability of data and materials
Requests for the data and materials supporting the findings of this study should be directed to the corresponding author.

Competing interests
The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of the article.

Ethical clearance
The study received ethical clearance from the National Hospital Review Board Ethics Committee under protocol number 00123/KT.7.4/IV/2025.

Funding
The study received funding from the Institute for Research and Community Service of Universitas 'Aisyiyah Yogyakarta, Indonesia.

Publishers and journal's note
The research is instrumental in evaluating decisional conflict within the patients with T2D. Having undergone rigorous psychometric evaluation, the tool is now validated for clinical application by healthcare providers across various primary and secondary care contexts.

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JHNS
Journal of Holistic Nursing Science
E-ISSN: 2579-7751 P-ISSN: 2579-8472

Authors' insight

Key points

- This study presents the successful cross-cultural adaptation and psychometric validation of the Indonesian version of the DCS for patients with T2D.
- The findings highlight that the Indonesian version of the DCS maintains strong internal consistency and construct validity.
- The adaptation process highlighted the nature of decision-making in Indonesia, where healthcare decisions are not viewed as solitary choices but are instead embedded in the family and community.

Emerging nursing avenues

- How can the Indonesian version of the DCS be integrated into nursing education curricula to train future nurses in identifying and addressing decisional conflict in clinical practice?
- What challenges might healthcare providers face in applying the instrument in rural or low-literacy T2D populations?
- In what ways can the use of the DCS contribute to improving SDM models in Indonesia, particularly when balancing patient autonomy with family-centered cultural practices?

How to cite this article (APA style)
Inayati, A., Sriyati, S., & Winitchayothin, S. (2026). Cross-cultural adaptation and psychometric testing of the Indonesian version of the decisional conflict scale in patients with type 2 diabetes. *Journal of Holistic Nursing Science, 13*(1), 64–74. https://doi.org/10.31603/jhns.v13i1.14945