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# Translation and validation of the East Asian Acculturation Measure (EAAM) among Myanmar migrants in Thailand

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## Abstract

**Background:** Acculturation provides a framework for exploring the health behaviors of ethnic minority or cultural groups. Research on the acculturation level and patterns of Myanmar migrants is crucial since there is ample evidence that acculturation promotes health-promoting behaviors. However, no Myanmar version has undergone cross-cultural validation.

**Objective:** This study aimed to translate the original East Asian Acculturation Measure (EAAM) into the Myanmar version (EAAM-M) and investigate its psychometric properties.

**Methods:** The validation study was conducted on a sample of 200 Myanmar migrants in three factories in Bangkok, Thailand, by a multistage random sampling method from August to September 2023. Brislin's back translation technique was applied to convert the original EAAM into its modified version, EAAM-M. The reliability, content validity, and construct validity of the EAAM-M were examined, and confirmatory factor analysis (CFA) was employed to test the appropriateness of the model that underpins the EAAM-M structure.

**Results:** The average age of the participants was 38.39 years (SD = 5.56), and 68% of participants reported they earned less than 9000 baht. In terms of how long they stayed in Thailand, slightly over half (52.5%) did so for 1-5 years. Nearly half of them (46%) cannot communicate at all regarding their proficiency in speaking Thai. The score regarding the comparability of language and similarity of interpretability between the original EAAM and the EAAM-M was satisfactory. The overall alpha reliability of the EAAM-M was 0.76. Based on the CFA, the measurement model was well fit, with acceptable goodness-of-fit values (Chi-square test of model fit ( $p = 0.05$ ), CMIN/df = 1.70 ( $\chi^2 = 624.931$ , df = 366), RMSEA = 0.02, CFI = 0.98, and SRMR = 0.06). The validity and reliability of the factors were affirmed through appropriate factor loadings and satisfactory levels of composite reliability (0.942) and average variance extracted (0.538).

**Conclusion:** The EAAM-M is a reliable and valid instrument to measure the acculturation patterns of Myanmar migrants. It is beneficial for scholars across various disciplines, including health professionals and nurses, to deliver culturally tailored care for migrants.

## Keywords

Myanmar; acculturation; psychometrics; translations; cross-cultural comparison; factor analysis; immigrants; emigrants; Thailand

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## Background

Acculturation is a dynamic, multifaceted construct employed as a variable across numerous academic fields. Grasping the concept of acculturation is a crucial step in advancing culturally competent healthcare and the well-being of immigrants (McDermott-Levy, 2009; Redfield et al., 1936). Leininger (1995), a nurse anthropologist, defined acculturation as the process by which immigrants learn the norms, values, and style of life of a different cultural group and become accustomed to a new language and culture. The longer the migrants stay in the host country, the greater the chances of assimilation, integration, and marginalization (Barry, 2001; Yan & Cardinal, 2019). Changes in identity, the dissolution of

social networks, and exposure to diverse health-promoting behavior patterns may influence health-promoting behaviors due to acculturation. A fundamental presumption is that beliefs or norms related to specific behaviors undergo changes as acculturation increases (Abraído-Lanza et al., 2006). Multiple studies have shown a significant correlation between acculturation and health-promoting behaviors (Allen et al., 2014; Aqtash & Van Servellen, 2013; Hardan-Khalil, 2020; Huang et al., 2018). As global migration increases, nurses interact with people from diverse cultural backgrounds. Meeting the demands of a patient population that is constantly changing will require nurses to have a solid understanding of transcultural nursing principles and be able to apply them in practice. One instance of how transcultural nursing concepts

need to be better understood is acculturation (Buscemi, 2011b). Assessing acculturation requires using valid and reliable tools (Barry, 2001). Although more research is necessary to understand how migrants adapt to the host culture, conducting this research requires the translation of an instrument with good reliability and cross-cultural validity to measure various aspects of this situation.

Numerous tools are available to assess acculturation among various populations: The Cross Racial Identity Scale (CRIS) to investigate the relationship between Black racial identity components and other factors, such as acculturation, and to operationalize the enlarged theory of nigrescence (Vandiver et al., 2002); the General Ethnicity Questionnaire American Version and Chinese version to assess acculturation models that are both unidimensional and bidimensional (GEQA) (Tsai et al., 2000); A Short Acculturation Scale for Hispanics (ASASH) to measure the acculturation patterns of Filipino Americans in the country (Cruz et al., 2000), and the East Asian Acculturation Measure (EAAM) (Barry, 2001) to measure the acculturation patterns of East Asian immigrants in the United States. Because of its suitability for Myanmar migrants in Thailand and the similarities in their cultures with those of other East Asian immigrants, the EAAM was chosen among them. The EAAM was developed on the theoretical foundation of Barry's four acculturation strategies: assimilation, separation, integration, and marginalization. Assimilation involves relinquishing one's cultural identity and blending into society. Separation entails preserving ethnic identity and customs while severing ties to the broader society. Integration constitutes upholding a group's "cultural integrity" while still making significant contributions to society. Marginalization occurs when individuals fail to engage culturally or psychologically with their traditional culture or the greater society (Barry, 2001).

The EAAM has been translated into numerous languages, including Chinese, Bahasa Indonesia, Albanian, Myanmar, and Thai. Their psychometric properties have already been tested, and they have been validated across cultural boundaries. The EAAM stands out as a comprehensive measure of acculturation patterns due to its user-friendly nature, brevity, applicability across diverse ages and cultures, and its prior validation in various cultural contexts globally (Aung et al., 2020; Kuo et al., 2013; Nasution et al., 2023; Papadopoulos et al., 2015).

The Chinese version of the EAAM revealed a satisfactory confirmatory factor analysis of 0.91 and a Cronbach alpha of 0.72 for the whole questionnaire. Its subscales scored between 0.76 and 0.79, and its test-retest reliability correlation (at three weeks) was 0.75. It also had a statistically significant correlation with the Chinese Health Questionnaire, showing satisfactory concurrent validity (Kuo et al., 2013). The Indonesian version of the East Asian Acculturation Measure (EAAM) had a global alpha 0.8 (Nasution et al., 2023). An Exploratory Factor Analysis was conducted on the Albanian version of the EAAM. The Kaiser-Meyer-Olkin (KMO) index exceeded 0.7, Bartlett's Test of Sphericity yielded a significance of 0.00, the loadings ranged from 0.54 to 0.81, and approximately 58% of the total variance was accounted for. The Reliability Analysis affirmed the structure of factors with a global alpha of 0.85 (Papadopoulos et al., 2015). The EAAM was translated into the Myanmar and Thai languages

and tested for reliability. The Myanmar version of the EAAM demonstrated an overall Cronbach's alpha reliability coefficient of 0.73, while the Thai version showed a coefficient of 0.82 (Aung et al., 2020).

Using previously established instruments with robust psychometric qualities can save time and effort in cross-cultural research. To be valid, these tools must be accepted by the target culture and adequately translated; only then can cross-cultural researchers reap the potential benefits of using the right tools in their research. This makes the translation process essential to cross-cultural studies (Boynton & Greenhalgh, 2004; Cha et al., 2007; Tsang et al., 2017). Creating a new questionnaire or translating an existing one into another language could be challenging. The primary challenge lies in developing a questionnaire that meets rigorous psychometric standards and proves practical and effective for clinical and research purposes (Tsang et al., 2017). When an instrument is directly translated from one language to another, there is no assurance of content equivalence in the translated scale (Brislin, 1970).

It is essential for cross-cultural academics to recognize that concepts from one culture may not be highly pertinent to those from other cultures (Carlson, 2000). Even though some researchers translated the EAAM into Myanmar, there is currently no step-by-step translation and psychometric testing aiming to identify acculturation among Myanmar migrants working in the factories recently. Since this group is distinct and has the largest population in Bangkok, Thailand, it is essential to understand their acculturation patterns. Adapting this instrument from English to Myanmar involved a multistep process to guarantee linguistic congruence, cultural relevancy, and a direct forward translation. Therefore, this study aimed to describe the process of translating the EAAM from English into the Myanmar version (EAAM-M) and examine its psychometric properties.

## Methods

### Study Design and Participants

This validation study aimed to confirm the psychometric properties of the EAAM-M among Myanmar migrants employed in Bangkok, Thailand. The suggested number of participants per one item of the instruments varies from 2 (Kline, 2023) or from 5 to 10 (DeVellis & Thorpe, 2021). The EAAM has 29 items, so the sample size for conducting Confirmatory factor analysis (CFA) can range from 58-290. Consequently, CFA was employed on 200 Myanmar migrants to evaluate the construct validity of measurements.

A multistage random sampling method was used to select participants from three factories located in Bangkok because migrants are concentrated in Bangkok and pass through border areas to Bangkok due to its popular place for job opportunities and urbanization. Firstly, three subdistricts were selected by simple random sampling. Each factory, the researcher could get access, and the owner agreed their workers could participate in the study from three subdistricts were recruited by purposive sampling. Participants proportionate to the size of the population were collected at their lodging in the factory (67 participants from each factory) and were selected by stratified random sampling. The following were the eligibility criteria: 1) aged 30 to 50 years old

(In Bangkok, 30-50 years old is the highest age group and working population: 30-34: 462862, 35-39: 459934, 40-44: 438625, and 45-49: 416201) (Thailand National Statistical Office, 2022), 2) are registered Myanmar migrants, 3) have been working in factories, 4) have been residing in Thailand for a minimum of one year, 5) can read and write Myanmar language, and 6) are amenable to participate in the study. Exclusion criteria were Myanmar migrants who had difficulty communicating in Burmese and were pregnant; their acculturation patterns might be different from those of general migrants who were staying temporarily in Thailand.

### Instrument

The EAAM was administered to 150 nonclinical East Asian immigrants in the United States, comprising 75 males and 75 females. This 29-item self-report inventory assesses four acculturation dimensions: assimilation (8 items), separation (7 items), integration (5 items), and marginalization (9 items). Respondents used a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Subscale scores were obtained by summing relevant items and dividing by the number of items, generating mean scores for each strategy. Total scores were calculated by summing reverse- and positive-scored items. Reliability, assessed through Cronbach's alpha, resulted in coefficients of 0.77, 0.76, 0.74, and 0.85 for the assimilation, separation, integration, and marginalization scales, respectively (Barry, 2001).

### Translation Process

After obtaining permission from the original author/developer to translate the original EAAM into Myanmar and validate the scale, Brislin's back-translation method was employed to generate a translation that was both reliable and valid and to enhance conceptual, semantic, and content equivalence (Brislin, 1970). There are three steps in this translation process: Firstly, the instrument was forward-translated from English into Myanmar by an Australian translator from the Australian National University (Certificate in Teaching English to Speakers of Other Languages, CELTA), fluent in both languages and cultures. Following that, the Myanmar version was back-translated into the English language by a translator from the Faculty of Science and Education, Mahidol University, Bangkok (Master of Arts in English Language Teaching, M.A.ELT) who was blinded from the original version of the instrument and being oblivious to the intent and the concept or context being studied. The researchers and professors with experience in health concepts and general nursing from Myanmar compared the linguistic equivalence and cultural relevancy of the back-translated version of the instrument with the original version, engaged in discussions, deliberated on discrepancies, and resolved any issues through discussion and consensus. Based on the translation process results, it was indicated that the interpretations of the original and Myanmar versions of the scale were equivalent. The fact that the researchers found no translation errors suggests that the translation procedure was successful because the two versions were rechecked by one expert familiar with Community Health Nursing and the researchers.

### Data Collection

The data collection for the study was conducted by the researchers from August to September 2023 after receiving IRB approval. Prior to the study, the researchers sought and obtained permission to access the study participants in the lodging of three factories in Bangkok, Thailand. Patients who met the inclusion criteria and were willing to participate were asked to sign a written consent form. The researchers and three research assistants distributed the self-administered paper-based questionnaires individually. In addition, patients were asked to refrain from discussing with each other after completing the EAAM-M, and every participant responded to the questionnaire very well. No participant did not complete the questionnaire because the researchers and research assistants observed the participants filling it out and prompted them to complete it. It generally took approximately 10 to 15 minutes per participant.

### Data Analysis

After translating the instrument, an innovative method by Sperber (2004) was used for instrument validation. The formal comparison between the back-translated and original source-language versions was conducted throughout the validation process. Each item in both versions is assessed based on the degree of language comparability and interpretability similarity. Likert scales were employed, ranging from 1 (extremely comparable/extremely similar) to 7 (not at all comparable/not at all similar). Any mean score exceeding 3 requires a formal review of the translation. Additionally, mean scores falling between 2.5 and 3 are considered problematic and are subject to a review for potential correction, and  $\leq 2$  is acceptable and content equivalence (Sperber, 2004). The raters were two Public Health experts and three Professors with experience in Community Health Nursing in Myanmar. Comparability of language for the EAAM-M is ranging from 1 to 2. As these are acceptable scores, they do not need to be reviewed and corrected. Similarly, there was no issue with the similarity of interpretability, ranging from 1 to 2. It was thus concordance between the original EAAM and the EAAM-M.

The internal consistency was estimated using Cronbach's alpha to determine the reliability. The acceptable Cronbach's alpha coefficient score is 0.70 or higher (Heale & Twycross, 2015). A pilot test of translated questionnaires was conducted on 30 participants with similar characteristics from the study at Future Garment, Bang Phong Phang subdistrict, Yan Nawa, Bangkok. In analyzing the overall alpha reliability of the EAAM instrument, a score of 0.76 was attained. Furthermore, the reliability values for the four factors were as follows: assimilation ( $\alpha = 0.79$ ), separation ( $\alpha = 0.82$ ), integration ( $\alpha = 0.77$ ), and marginalization ( $\alpha = 0.89$ ). It was observed that the participants could respond to the questions without any issues. The overall EAAM score had a significant correlation with the EAAM subscale scores, with correlation coefficients ( $r$ ) ranging from 0.375 to 0.625 ( $p < 0.001$ ), signifying a strong resemblance among the item scores.

The Statistical Package for Social Sciences (SPSS v.28, IBM SPSS) and the Mplus (v.7.2) software were used for data analysis. Descriptive statistics such as frequency, percentage, and Pearson correlation were used to describe participants' demographic characteristics and the correlation between total scores and subscales. Confirmatory factor analysis (CFA),

also known as restricted factor analysis, structural factor analysis, or the measurement model, is commonly employed in a deductive manner to evaluate hypotheses related to unobserved factors contributing to the shared variance within a set of scores (Hoyle, 2000). A structural equation modeling approach was employed to conduct a confirmatory factor analysis, assessing the appropriateness of the model that forms the foundation of the original structure of the EAAM established by Barry (2001).

The CFA utilized the maximum likelihood (ML) estimation method to examine potential variations in the estimates. The CFA adhered to the acceptable model criteria as adopted by Hair et al. (2014): chi-square  $p > 0.05$ ; chi-square/degrees of freedom (CMIN/DF)  $< 5$ ; Comparative Fit Index (CFI) and Goodness of Fit Index (GFI)  $> 0.95$ ; standardized root mean square residual (SRMR)  $< 0.08$  and root mean square error of approximation (RMSEA)  $< 0.06$ .

### Ethical Considerations

The Institutional Review Board (IRB) of Chulalongkorn University, the Research Ethics Review Committee for Research Involving Human Research Participants, Health Science Group, Chulalongkorn University approved this study under COA No.165/66. The World Vision Foundation of Thailand also granted formal authorization for the research project and the data collection protocol. Informed consent forms were delivered to each participant, which explained the aims of the study, protocols, measurements, human rights protection issues, benefits and risks, and issues of

confidentiality. Researchers clearly explained the purpose and process of the study to the participants. Any participant was allowed to withdraw from the study until data collection was concluded. The ethical framework employed in this study adheres to principles outlined in the Declaration of Helsinki, emphasizing considerations such as autonomy, beneficence, non-maleficence, and justice (Greaney et al., 2012).

## Results

**Table 1** displays the demographic and clinical characteristics of the 200 participants included in this study. In terms of age, approximately one-third of the participants (30.5%) were between the ages of 35 and 39, and a minority (17.5%) were between 45 and 50 years, with the mean age of the participants being 38.39 years ( $SD = 5.56$ ). Gender distribution was equal since the researcher collected the same numbers for each gender. Education levels differed among the participants, with a third having completed high school at 36.5%. The participants' marital status varied, with the largest group (47.5%) married. Regarding income level, the majority of participants (68%) reported they earned less than 9000 baht per month. On the length of residence in Thailand, slightly more than half of them (52.5%) lived for 1-5 years. Nearly half of them (46%) cannot communicate at all in terms of their ability to speak Thai. The majority of the participants purchased health insurance ( $n = 147$ , 73.5%). The vast majority of them did not smoke ( $n = 162$ , 81%).

**Table 1** Demographic characteristics of the participants ( $N = 200$ )

Characteristics		<i>n</i>	%
Age (years)	30-34	61	30.5
	35-39	63	31.5
	40-44	41	20.5
	45-50	35	17.5
Gender	Male	100	50
	Female	100	50
Level of education	No education	7	3.5
	Primary school	31	15.5
	Secondary school	72	36
	High school	73	36.5
	Diploma	6	3
	Bachelor degree	11	5.5
Marital status	Single	73	36.5
	Widowed	3	1.5
	Divorced	4	2
	Live together (without marriage)	25	12.5
	Married	95	47.5
Income level	<9000	135	68
	9001-18000	59	30
	18001-27000	4	2
	>27001	2	1
Length of residence in Thailand	1-5 years	105	52.5
	6-10 years	52	26
	11-15 years	34	17
	16-20 years	8	4
	Above 20 years	1	0.5
Ability to speak Thai	Cannot communicate at all	92	46
	Can communicate basically	74	37
	Can speak fluently but cannot read/write	30	15
	Fluent in Thai and read/write	4	2
Health insurance	Yes	147	73.5
	No	53	26.5

In this study, the normal distribution of the data was assessed using skewness and kurtosis values. Skewness is considered acceptable within the range of -3 to +3, and for kurtosis, values within -10 to +10 are deemed appropriate when employing structural equation modeling (SEM) (Hair et

al., 2014). The skewness and kurtosis of acculturation were analyzed. The score distribution for the acculturation was close to normal. The skewness value of this variable was 0.013, and the kurtosis value was 0.060 (Table 2).

**Table 2** Descriptive statistics for the major studied variables ( $N = 200$ )

Variables	Minimum	Maximum	$\bar{x}$	SD	Skewness	Kurtosis
Assimilation	1	7	2.46	1.25	0.704	-0.059
Separation	1	7	5	1.75	-0.902	-0.334
Integration	1	7	4.12	1.31	-0.242	-0.312
Marginalization	1	7	4	1.49	0.172	-0.506
Overall acculturation	1.93	6.03	3.85	0.73	0.013	0.06

Construct validity was evaluated using a CFA within the framework of structural equation modeling (SEM), following the structure of the original EAAM scale by Barry (2001). The model consists of four latent variables, 29 observed variables, and 29 error terms. The result showed that the initial model did not fit well with empirical data: chi-square test of model fit ( $p < 0.001$ ), CMIN/df = 2.00 ( $\chi^2 = 749.618$ , df = 373), RMSEA = 0.07, CFI = 0.87, and SRMR = 0.06. At this step, the researcher tried to find a new model that fitted the observed data, and this involved refining the model based on modification indices (MIs) and establishing correlation trajectories between the errors of items.

The researchers allowed the error term to be correlated by using the “with statement” in the Mplus result, fixing for seven error terms. The range of factor loadings for the “assimilation factor,” “separation factor,” “integration factor,” and “marginalization factor” was 0.47 to 0.90, 0.39 to 0.92, 0.44 to

0.69, and 0.58 to 0.78, respectively (Figure 1). The proposed model was tested using a maximum Likelihood (ML) solution in a second-order CFA. The goodness-of-fit measures obtained for the four-factor structure demonstrated adequacy, as reflected in (Table 3). This supports the factorial validity of the EAAM-M: Chi-square test of model fit ( $p = 0.05$ ), CMIN/df = 1.70 ( $\chi^2 = 624.931$ , df = 366), RMSEA = 0.02, CFI = 0.98, and SRMR = 0.06. Convergent validity is affirmed by dimensions corresponding to composite reliability (CR) of 0.942 and an average variance extracted (AVE) of 0.538. Concerning discriminant validity, it is confirmed that the dimensions of shared variances are lower than the average variance extracted (AVE) for each subscale. This leads the readers to believe that the translated and adjusted EAAM-M version has sufficient factor validity and reliability for usage with Myanmar migrants.

**Table 3** The Goodness-of-fit values of the Myanmar version of the EAAM

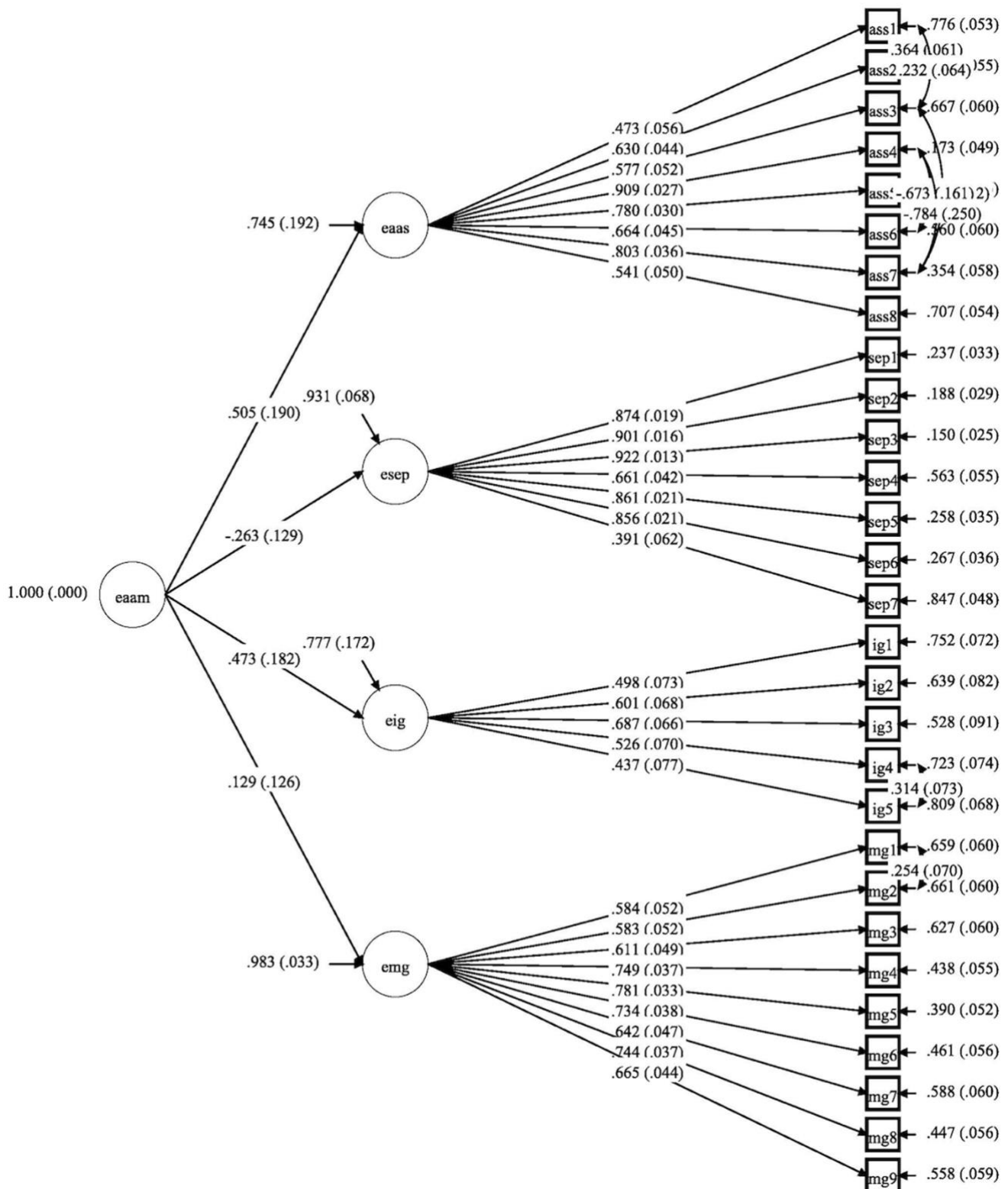
Measure	Adjustment level recommended*	Score on the initial model	Score on the final model
Chi-square test of model fit ( $p$ -value)	>0.05	<0.001	0.05
CMIN/df	<5.0	2.00	1.70
RMSEA	<0.06	0.07	0.02
CFI	>0.95	0.87	0.98
SRMR	<0.08	0.06	0.06

## Discussion

Regarding the translation process, the challenge encountered is difficulty finding an appropriate match for some English words in Myanmar. Item No. 5 from the dimension, Assimilation, needed to be retranslated until the experts came to an agreement. The original version was “I find it easier to communicate my feelings to Thai people than to Myanmar people,” and the meaning of “communicate my feelings” was similar to “express”; however, after translation, the word “my feelings” was missing and it was corrected. Likewise, item No. 6 from the dimension Marginalization needed to be translated until a consensus was reached. The original question was, “Sometimes I feel that both Myanmar and Thai people do not accept me”; however, the translated version used the word “interact” instead of “accept.” Therefore, it was retranslated until both versions were equivalent. Item No.9 from the Marginalization component of the questionnaire—which reads, “I find that I do not feel comfortable when I am with other people.”—was another that the expert advised the researcher

to use. The connotation was similar to “I have trouble communicating with other people,” thus revision was required. As such, a new translation of this questionnaire has already been made.

In this study, after performing back-translation, an assessment of language comparability and interpretability similarity of the EAAM scale was conducted, and they ranged from 1 to 2 as previously indicated, and they were satisfactory. The questionnaire was designed for the East Asian Immigrant population, whose cultural background was not that dissimilar from that of Myanmar migrants. There were no semantic or linguistic problems as a result. According to numerous studies, the reliability of the EAAM is good (Aung et al., 2020; Kuo et al., 2013; Nasution et al., 2023; Papadopoulos et al., 2015) and comparable to that of the original version (Barry, 2001). Similar to this, the reliability of the EAAM among Myanmar migrants was likewise deemed acceptable, with global alphas of 0.79, including 0.82, 0.92, 0.77, and 0.89 for assimilation, separation, integration, and marginalization, respectively.



**Figure 1** Final model for the Myanmar version of the EAAM (29 items)

**Abbreviations:** eaam = The East Asian Acculturation Measure (EAAM), eaas = Assimilation, esep = Separation, eig = Integration, and emg = Marginalization

When testing the psychometric characteristics of the EAAM-M, it is considered that the EAAM-M has theoretical relationships based on the factor loadings, and the second-order factor baseline model fits the data quite effectively. These psychometric properties were approximately similar to the Chinese version of the EAAM (EAAM-C). The item count was reduced from 29 to 16, and the factor loadings for 'separation' ranged from 0.67 to 0.81, for 'integration' from

0.61 to 0.80, for 'assimilation' from 0.48 to 0.83, and for 'marginalization' from 0.73 to 0.91. The model demonstrated good data fit with a CFI of 0.91 and an RMSEA of 0.07 (Kuo et al., 2013). Nevertheless, the findings diverged from the psychometric assessment of the Albanian version of the EAAM among 306 immigrants in Greece. The results indicated a lack of confirmation of the instrument's validity ( $\chi^2=135.332$ , RMSEA=0.135, SRMR = 0.085), attributed to cultural

distinctions between Albanian immigrants in Greece and East Asian immigrants in the United States (Papadopoulos et al., 2015). Given that East Asian immigrants and migrants from Myanmar share a common culture, it was not very problematic for the cross-culturally validated version of the EAAM to fit the data in this study.

Even though acculturation has been originally viewed as a unidimensional process, a growing belief is that it is also a multidimensional process. It is a process of adaptation to a host culture without necessarily rejecting the culture of origin (Buscemi, 2011a). In a clinical setting, a multidimensional tool such as this can convey more crucial information than a unidimensional one (Kuo et al., 2013). As a result, the EAAM-M could measure four dimensions of acculturation, including assimilation, integration, separation, and even marginalization. The EAAM-M is suitable for gauging the acculturation patterns of Myanmar migrants across various Asian countries because Asian cultures are not all that different from one another, and its reliability and validity are acceptable.

This instrument can contribute to the health promotion of Myanmar migrants because it can be used to measure their acculturation patterns, and acculturation is a significant factor in health-promoting behaviors. Evidence has shown that immigrants who were highly integrated and assimilated adopted health-promoting behaviors at a significantly higher rate than those who were highly separated and marginalized (Aqtash & Van Servellen, 2013; Khalil, 2014).

To assist students in better grasping how culture affects health, especially health promotion, and how important culture is, the findings of nursing research using the EAAM-M might be incorporated into the nursing curriculum. This instrument could be used in transcultural nursing to gauge the degree of acculturation among Myanmar migrants. Health care professionals, including nurses, can use this tool to utilize the results based on evidence when providing culturally tailored health care. Transcultural nursing is essential to nursing professionals as many people migrate from one country to another. To guarantee that migrants receive quality nursing care, nurses must evaluate acculturation patterns. Additionally, suppose nurses are aware of the acculturation patterns of migrants. In that case, they will apply such valuable information to provide health education and promotion to the immigrants, thereby enhancing their physical and mental well-being as well as their social perspectives and ultimately contributing to the development of the host country.

### Limitations and Recommendations for Future Research

There are certain limitations in this study. Given the diversity of races among Myanmar migrants, focusing on a particular ethnic group in the future will be more representative. Because of the population's accessibility, there are some difficulties in collecting data on a single ethnic group for this study. Because the study only looked at one point in time, healthcare providers are unable to comprehend how the acculturation patterns of Myanmar migrants change over time without access to longitudinal data. In the future, a large sample should be employed to generalize the entire population of Myanmar migrants and compare the acculturation patterns across the various ethnic groups. Conducting randomized controlled trials is essential to ascertain the impacts of acculturation on the

health outcomes among Myanmar migrants in the long run. Lastly, there can be cultural variations in other Western and European countries; as a result, it should be tested among Myanmar migrants in those countries.

## Conclusion

Acculturation can influence the health-promoting behaviors of individuals, families, and communities. Hence, nurses must comprehend the factors that shape acculturation, understand its effects, and appreciate its intricacies. The EAAM-M is a reliable and valid tool to measure the acculturation patterns of Myanmar migrants based on the psychometric properties testing of this instrument. It could also be applied to conducting intervention studies related to culture since culturally tailored interventions increase patient care effectiveness. Healthcare professionals, particularly nurses, will find this study worthwhile as it will enable them to provide patients with culturally sensitive care by using this assessment tool to identify the acculturation patterns of migrants from Myanmar.

## Declaration of Conflicting Interest

The authors declared no potential conflict of interest in this study.

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## Authors' Contributions

HSWO conceived and designed the study, collected that data, analyzed and interpreted the data, and contributed to writing the paper. RT conceived and designed the study, analyzed and interpreted the data, and contributed to writing the paper. NWP conceived and designed the study, analyzed and interpreted the data, and contributed to writing the paper. All authors approved the final version of the article to be published.

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## Data Availability

The datasets are not publicly available but are available from the corresponding author upon reasonable request.

## Declaration of Use of AI in Scientific Writing

There is nothing to declare.

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