

**Kogan's Attitude Toward Old People:
Evaluation of validity and reliability assessment among nursing students
in Thailand, Myanmar, and Indonesia¹**

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Abstract

Background: Asia is on track to become the region with the most elderly people in the world. The elderly population will reach 922.7 million by the middle of this century. Therefore, they will be cared for by the today's youth. Negative attitudes toward older people can make adolescents more uncomfortable relating to them.

Objectives: The objective of this study was to evaluate validity and reliability of Kogan's attitude toward old people among nursing students in Thailand, Myanmar, and Indonesia.

Methods: Content validation of the 34-item Kogan's attitude toward old people was examined by three geriatric nursing experts. The reliability was evaluated on 600 nursing students, from nursing colleges in Thailand (200), Myanmar (200), and Indonesia (200).

Findings: The attitude scores towards the elderly ranged from 34 to 238. All of the 34 items were found to have significant item-to-total correlations ($p < .05$). The reliability results were as follows: In Thailand, Cronbach's alpha was .70 for the total scale, .72 for the positive scale, and .68 for the negative scale. In Myanmar, Cronbach's alpha was .68 for the total scale, .65 for the positive scale, and .66 for the negative scale. In Indonesia, Cronbach's alpha was .66 for the total scale, .71 for the positive scale, and .72 for the negative scale.

Conclusions: These findings suggest that Kogan's attitude toward old people is reliable and valid for nursing students from Thailand, Myanmar, and Indonesia. However, Kogan's attitude toward old people should be revised by these countries, including changing wording on all items for better reliability. The revised version must then be tested for reliability and validity.

Keywords: attitude, elderly, nursing students, Kogan's attitude toward old people

Introduction and Background

As we start the 21st century, the number of older adults in Thailand is increasing at a higher rate than ever before. The number of adults age 60 or older in Thailand is 7 million or 11.5 percent of the country's population. It is expected that the number of the older adults will reach 9 million in 2020 (World Population Data Sheet: 2015.; Sriwanitchakorn as cited in Dumrikarnlert, 2012, p. 11). At this rate, in 2050, it will be the first time that older people will outnumber the young people all over the world (Winker & DeAnglis, 2010). The decline in younger people is the result of a reduction in family size and will result in a greater number of children who will be the future caregivers of the aging adults. In addition, many older adults return to their family homes when they become frail and dependent. In the near future, Thailand will face a proportionally large older adult population with chronic illnesses, who in many instances will be cared for by the youth of today (Jitapunkul, 2000). Older people in Thailand tend to live in multi-generational households. Registered nurses' care of older people has the characteristics of long-term (Caffrey, 2005) and palliative care (Johnston & Smith, 2006) around the clock and is defined as gerontological nursing and community nursing.

Experts believe that negative attitudes may result from misconceptions about aging people and the aging process (Lambrinou, Sourtzi, Kalokerinou, & Lemonidou, 2005). The negative attitudes and misconceptions make adolescents more fearful and uncomfortable relating to older adults. The first step in correcting the misconceptions is to have accurate instruments to assess adolescents' attitudes toward older adults. The significant factor that influences attitude toward old people is culture (Mark & Charles, 2013). Therefore, nursing students from Thailand, Myanmar, and Indonesia who were from different cultures may or may not be have the same attitude toward old people. Nursing students from these countries study about care of the elderly. However, their attitudes toward old people cannot be studied because of the lack of pre-existing valid and reliable measurement instruments. Research concerning attitudes toward older adults began over 40 years ago. The most suitable instrument for this study appears to be the questionnaire about aging called

“Attitudes toward Old People Scale” (OP) developed by Kogan in 1961. Using an instrument cross-culturally requires a process that follows translation theory. The process must ensure that the tool is adequately translated and also is a reliable and valid measure for the target population. A significant part of the study’s effort was directed to measure the validity and reliability of Kogan’s attitude toward old people.

Kogan Attitudes Toward Old People Scale

Kogan’s attitude toward old people is an instrument used to measure stereotypes of the aged and people’s image of older adults. It has 17 positive items and 17 negative items. Kogan’s attitude toward old people scale consisted of 3 domains: personal appearance, resemblance, and the nature of interpersonal relations across age generations. In the original study Kogan tested his instrument with students in psychology classes, which included 314 subjects from Northeastern University and 168 subjects from Boston University. Kogan found that the reliabilities ranged from $r = .66$ to $.77$ on the positive scale and $r = .73$ to $.83$ on the negative scale (Kogan, 1961). The intraclass correlation coefficient (ICC) was used to test the Thai version of this instrument. Monolingual English speakers scored the similarity of the questionnaires between the source and back-translated versions. The result of ICC was above $.75$, which indicates good reliability (Runkawatt, 2007).

Additionally, there was a study that tested the validity and reliability of the Greek version of this instrument. The sample consisted of 390 nursing students in Athens. The internal consistency reliability with a Cronbach’s alpha coefficient of $.73$ for the negative items and $.65$ for the positive items. (Lambrinou et al., 2005). Kilic and Adibelli (2011) conducted a study to test the Turkish version of Kogan’s OP. The sample consisted of 145 female students, in their 4th or 5th year of study at the Faculty of Medical Sciences at Atatürk University, and 118 nurses, working at Ataturk University Aziziye-Yakutiye. Cronbach’s alpha was 0.81 for the total scale.

Objective

Thailand, Myanmar, and Indonesia are located in the Southeast Asia region. These countries are facing a growing elderly population meaning that the education about caring for older adults needs to change. Therefore, the attitudes of nursing students must be measured with a valid instrument. The purpose was to evaluate the validity and reliability of Kogan's attitude toward old people among nursing students in Thailand, Myanmar, and Indonesia.

Methods

Cross-sectional surveying was performed using an online survey. The study was approved by the ethics committee review board for human protection of research at Boromarajonani College of Nursing Saraburi.

The aim of this study is to look at the attitude toward old people in 3 countries in the region. The three countries include Thailand, Myanmar, and Indonesia, which have an established exchanged student program. A cluster sample of 200 nursing students in each of the 3 countries was recruited to participate in the study. All participants, who freely agreed to take part in this study, answered Kogan's attitude toward old people questionnaire. The data from this questionnaire were analyzed to test the reliability.

Kogan's attitude toward old people consisted of 3 domains: personal appearance, resemblance, and the nature of interpersonal relations across age generations. Kogan's attitude toward old people is a Likert-type scale and consists of 17 matched pairs of statements about older people. There are 7 response categories from strongly agree (7) to strongly disagree (1). The items were developed to measure how participants feel about older people regarding their dependence, living arrangements, intelligence, and personality. Kogan's attitude toward old people was previously translated according to Brislin's model (Runkawatt, 2007). The content validity and cultural appropriateness were established. Reliability in previous studies were 0.70 (Runkawatt, 2007) and 0.73 (Runkawatt,

Gustafsson, & Engstrom, 2011).

After approval for this study was obtained from Boromarajonani College of Nursing, Saraburi ethics board, the link to the online questionnaires were posted in the nursing or public health colleges' website in each country. Additionally, at some institutions in Indonesia, the Internet connection is not stable. Therefore, a paper questionnaire was used instead.

Results

The total of 600 questionnaires was analyzed. The average age of the sample from Thailand was 19.28 (SD = 1.12), range 17 to 24. The mean age (SD) for Myanmar and Indonesia at the time of answering the questionnaire was 17.82 (SD = 0.77) years ranging from 16 to 20 years and 20.07 years (SD = 1.25) ranging from 16 to 23 years, respectively.

The Equivalence of Translation of Kogan's Attitude toward Old People

Kogan's attitude toward old people was translated into Thai for Thai nursing students, and the original English version of Kogan's attitude toward old people was used with the students in Myanmar and Indonesia; many students in Myanmar and Indonesia speak English well due to many subjects being taught in English. Brislin's model for translating and back-translating instruments is a method of preparing the Thai version of Kogan's attitude toward old people. Then intraclass correlation coefficient (ICC) was applied to test the similarity of the words and phrases between the source and back translated versions. The ICC for rating similarity was very high both in language (.93) and interpretation (.94). This indicated that there was an equivalence of translation for Kogan's attitude toward old people questionnaire.

Content validity

Content validation of the Thai version of the 34-item Kogan’s attitude toward old people was examined by three Thai geriatric nursing experts. It relies on expert judgments to assess the relationship between parts of the instrument and the defined universe. Ninety to 100 percent of the items in all sections were rated relevant or very relevant to the research objective. The ICC showed that the content validity index (CVI) of Kogan’s attitude toward old people was very high, 0.95.

Internal consistency reliability (Cronbach’s alpha)

Cronbach’s alpha was calculated to determine the internal consistencies of the instruments. The instrument is considered to have an internal consistency when the items within an instrument measure the same concept as the total of the instrument. These results were presented in Table 1.

Table 1 *Internal Consistency Reliability (Cronbach’s alpha) of Kogan’s OP Questionnaire in Thailand, Myanmar, and Indonesia*

Source of sample	Cronbach’s alpha		
	Positive items	Negative items	Total items
Thailand	.72	.68	.70
Myanmar	.65	.66	.68
Indonesia	.71	.72	.66

Scores of attitude towards elderly ranged from 34 to 238. All of the 34 items were found to have significant item-to-total correlations ($p < .05$). The reliability results were as follows: In Thailand, Cronbach’s alpha was .70 for the total scale, .72 for the positive scale,

and .68 for the negative scale. In Myanmar, Cronbach's alpha was .68 for the total scale, .65 for the positive scale, and .66 for the negative scale. In Indonesia, Cronbach's alpha was .66 for the total scale, .71 for the positive scale, and .72 for the negative scale.

Discussion

The aim of this study was to evaluate the validity and reliability of Kogan's attitude toward old people questionnaire in Thailand, Myanmar, and Indonesia. The content validity of Kogan's attitude toward old people in English has been studied in previous research and has a widespread use in research. In addition, the content validity of Kogan's attitude toward old people indicated that the items are a well-balanced sample of the three domains to be measured. Domain 1: Personal appearance included items 9, 10, 18, 19, 22-25, and 30-33. Domain 2: Resemblance included items 1-8, 11, 12, 15, and 16. Domain 3: The nature of interpersonal relations across age generations included items 13, 14, 17, 20, 21, 26-29, 34. Also, a factor analysis of the Greek version and the Thai version appears to have some similarities with the way Kogan differentiated the items (Kogan, 1961, Lambrinou et al., 2005, Runkawatt, 2007). These 34 items in the Thai version were relevant to the research objective and adequate in content validity (Runkawatt, 2007; Runkawatt et al., 2011).

The internal consistency coefficient (Cronbach's alpha) of Kogan's attitude toward old people was .70, .68, and .66. These moderate reliability findings were similar to findings that have been reported in previous studies (Lambrinou et al., 2005; Runkawatt, 2007, Runkawatt et al., 2011). Lambrinou et al. (2005) reported a Cronbach's alpha coefficient of .73 for the negative items and .65 for the positive items. Cronbach's alpha in previous studies were .70 (Runkawatt, 2007) and .73 (Runkawatt et al., 2011).

The reliability is lower than 0.75 because the instrument was originally created in the USA. American societal values and cultural beliefs may differ from those in Thailand, Myanmar, and Indonesia. For example, Item 1, a negative statement, stated that it would be better if older adults lived with people their own age. Item 2, a positive statement, stated that it would be better if older adults lived with younger people. Most of the nursing students strongly agree with both situations. Therefore, the assignment of positive or negative labels to items needs to be evaluated.

Kogan's attitude toward old people possessed satisfactory internal consistency reliability for the positive statements (.72, .65, .71). Although the negative statements had lower internal consistency reliability than positive statements, a good instrument must be a mix of positive and negative statements. Likert scaling is widely used in instruments measuring attitudes. Suitable items for a Likert scale are often a combination of positive and negative statements (De Vellis, 2003). In addition, Kogan's attitude toward old people has been used extensively to measure attitude. It has been translated into many languages, such as Swedish, Greek, Thai, and Turkish. Therefore, the researchers from these countries should consider a revision of the instrument, for example, re-wording. The assignment of a positive or negative value to each item may need revision, because the instrument was originally created in 1961. Additionally, American societal values and cultural beliefs may differ from those in the Southeast Asia region.

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