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Original Research

Adaptation and Validation of the Indonesian Version of the Instrument to Measure Nursing Students' Attitudes Toward Clinical Duties

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ABSTRACT

Introduction: Nursing students' attitudes toward clinical rotation education, play an important role in increasing their motivation to achieve goals, alertness, and ability to capture complex information. A positive attitude tends to encourage students to improve the quality and effectiveness of learning. While negative attitudes tend to decrease motivation, student interaction, attendance, and respect for staff in the clinic. The attitude toward clinical duties is a widely used instrument to identify nursing students' attitudes during clinical rotation learning which is available in English. Therefore, this study aims to adapt this instrument into an Indonesian version, so that a valid and reliable instrument is obtained.

Method: This was a descriptive quantitative study carried out in February-March 2023, through the stages of forward translation, synthesis, backward translation, expert review, and instrument testing based on Beaton's cross-cultural adaptation framework. This study involved 33 nursing clinical rotation students, using a Consecutive sampling technique. The Correlation validity was tested using Pearson Product Moment with 95% CI (p=0.05) and Cronbach alpha was used to identify the internal consistency.

Results: The mean I-CVI and S-CVI/Ave of the instrument was 1.00. The results showed that 19 of the 25 question items tested had an r-count larger than the r-table (>0.344). The internal consistency test using Cronbach alpha showed a value of α = 0.916.

Conclusions: The Indonesian version of the attitude towards clinical duties instrument with 19 questions has good content validity with excellent internal consistency value.

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1. INTRODUCTION

Clinical rotation learning is an educational stage that must be taken by nursing students to obtain a registered nurse degree after students complete undergraduate nursing education (Lestari, 2014). This stage of education aims to facilitate students to apply the theories and concepts obtained during an academic stage into practice in the actual setting. Through the professional education stage, nursing students are expected to be able to master therapeutic communication skills, problem-solving, interpersonal relationships, and clinical skills in patient management (Nursalam & Efendi, 2008).

Nursing clinical rotation education in Indonesia is generally divided into several stages, including basic nursing, mental health nursing, family and community nursing, pediatric nursing, medical and surgical nursing, gerontic nursing, emergency and critical care nursing, maternity nursing, and final

professional scientific work (AINEC, 2021). This educational process is carried out through various learning activities in various practice settings such as hospitals, social care centers, primary health care, and the community (Gcawu & Van Rooyen, 2022).

The large number of practice stages that must be passed, the practice sites that are always moving, the conditions that require nursing students to meet and interact with patients, patient's families, and health workers with various characteristics, the demand to be able to master the skills being taught, and the need to be able to adapt quickly to a new environment become challenges and pressures for clinical rotation students (Labrague et al., 2018).

These conditions if occur continuously and are not accompanied by good mental resilience, can make nursing students fall into stress. Blomberg et al (2014) in their research on nursing clinical rotation students in Sweden stated that 43% of the respondents experienced high levels of stress. Aslan & Pekince (2021) in their research also stated that more than 50% of nursing students experienced moderate levels of stress, even 72% of them experienced sleep disturbances. Savitsky et al (2020) also revealed that 42.8% of nursing students experience moderate to severe anxiety, especially after the Covid-19 pandemic.

Prolonged stress that is not resolved immediately, will have a negative impact on the academic achievement of the student. One of the internal factors that can affect the occurrence of stress in nursing students is their attitude toward the events or conditions experienced during an education process. Students' attitude toward their duties and obligations during clinical education refers to what and how nursing students try to achieve learning objectives and apply theory in practice in real settings (Kusi Amponsah et al., 2019). Attitude will influence a person to behave through their assessment of certain situations (Meria et al., 2019).

Nursing students' attitude toward the learning process plays an important role in increasing their motivation to achieve goals, alertness, and ability to capture complex information (Ha, 2015). Anagor et al (2021) in their research stated that a positive attitude tends to encourage students to improve the quality and effectiveness of learning. While, negative attitudes possessed by students tend to make these individuals experience a decrease in motivation to practice, punctuality of attendance, interaction with other students, and respect for staff in the clinic. The attitude shown by nursing students during an education process can affect their commitment to study and willingness to learn skills needed to improve competence (Avbuluimen & Chiejina, 2021).

Based on a literature search, currently, there are only a few instruments that specifically measure nursing students' attitudes toward clinical rotation education in Indonesia. Most of the existing instruments focus on attitudes towards academic education. The attitude towards clinical duties instrument developed by Sultan et al (2022) is an instrument that has been developed to measure nursing students' attitudes regarding clinical learning in Pakistan. Subsequently, this instrument was widely used in several research and practice to measure nursing students' attitudes towards clinical rotation education. This instrument is available in English and was translated into other languages, one of which is Arabic. However, this instrument is not yet available in the Indonesian version. Considering the importance of the use of this instrument, therefore in this study, the researcher intends to adapt the instrument into an Indonesian version.

2. MATERIALS AND METHODS

Prior to the instrument translation process, we already obtained permission from Sultan et al (2022) as the author of the original instrument, to adapt the instrument into an Indonesian version.

2.1 Design

The adaptation process and instrument validity test in this study used quantitative research methods with a cross-cultural adaptation approach based on the guidelines from Beaton et al (2000).This process was carried out through several stages including forward translation, synthesis, backward translation, expert committee review, and pre-testing.

2.2 Population, Sample, and Sampling

The validity and reliability of this instrument were tested on clinical rotation students from the Bachelor of Nursing Study Program, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada with a population of 60 students. Beaton et al. (2000) stated that instrument testing should ideally be carried out on samples of 30-40. However, to ensure that the sample size in this study represented the existing population, a sample calculation was carried out using the Harry King Nomogram (Sugiyono, 2015). The line was drawn from a population of 60, passing the 10% error rate with a 95% CI (multiplying factor of 1.195), resulting in a point at 46. So the calculation of the sample size is (46/100) x 60 x 1.195 = 32.98, which was rounded to 33 people. Data was collected using a Consecutive sampling technique. The inclusion criteria were: students who currently pursuing clinical rotation education, regular program students, and willing to become research respondents, with the exclusion criteria: students who are on leave and do not follow the research process until the end of the study..

2.3 Variable

As a variable in this study is the attitude of nursing students toward clinical rotation learning.

2.4 Instruments

The attitude toward clinical duties instrument from Sultan et al. (2022) was adapted into Indonesian in this research. This instrument consists of 25 question items in favorable and unfavorable form. It

has a dichotomous data scale with the answer options "Yes" or "No". The scoring of this instrument ranges from 0-25, where the higher the score, the more positive the attitude possessed by the student. The original English version of this instrument had an internal consistency reliability score of 0.91 as measured using Kuder Richardson 20.

2.5 Procedure

Forward translation

In the forward translation process, the instrument was translated into the Indonesian language by two translators who were bilingual in English and Indonesian. The first translator (T1) was a lecturer in nursing with a doctoral educational background from Universitas Gadjah Mada, who was considered to have an understanding of the concepts, materials, and information to be explored from the instrument. The second translator (T2) was an official translator from the Language Service Unit of Yogyakarta State University with a Master's degree in non-health educational background, to produce a question that is easily understood by lay people.

Synthesis

After forward translation has been done, then followed by the synthesis process. In the synthesis process, the translated instrument was reviewed and analyzed to generate question items based on mutual agreement. This process focuses on synchronizing and merging the forward translation results of the two translators (T1&T2), to become one common translation (T12). This was done to minimize potential discrepancies between the original and translated versions of the instrument.

Backward translation

The agreed instrument (T12) was then translated back into English as the original language. The back translation process was conducted by a different translator from the forward translator, who was completely blind to the original version. This process is carried out by two people who have expertise in Indonesian and English language. The first translator (BT1) was a nursing lecturer from Universitas Gadjah Mada with a master's degree and the second translator (BT2) was an official translator from the language service unit of Yogyakarta State University. This step aimed to ensure that the translated questions had the same meaning as the original version.

Expert Committee Review

The next process was expert review. This process involved 3 experts with a master's educational background in nursing, who have expertise in instrument testing and currently working as nursing lecturers at Universitas Gadjah Mada. The experts assessed the semantic and idiomatic equivalence of the instrument draft. Instrument testing was carried out by distributing forms to experts which containing 4 aspects of assessment using a Likert scale, including level of relevance (1: not relevant, 2: slightly relevant and requires very significant changes, 3: relevant but requires minor changes or modifications, 4: very relevant); essentiality (1: not needed, 2: useful but not essential, 3: essential); level of accuracy, clarity, and ease of understanding of the instrument (1: requires overall improvement, 2: requires major improvement, 3: requires little improvement, 4: good). The experts also provided input in the form of suggestions for sentence improvements on some of the available statement items to make them easier to understand. After going through these stages, the researcher conducted the first type of Content Validity Index (CVI) test involving Individual Item Content Validity (I-CVI) and Scale Level Average (S-CVI/Ave).

Pre-testing

The researcher explained the purpose and objectives of the study to the nursing clinical rotation students as prospective respondents. Prospective respondents who were willing to participate were asked to fill out the informed consent form. Filling out the questionnaire was done online through Google Forms. The researcher also included an explanation of the research and instructions for filling out the instrument on the form, as well as providing an opportunity for respondents to ask questions if there were things they did not understand.

2.6 Data Analysis

In the expert committee review, the first stage was carried out by categorizing the scores given by experts on each statement item. A score of 3 or 4 is categorized as 1 (Relevant) while a score of less than 3 is categorized as 0 (Not relevant). The I-CVI value on each item was calculated by dividing the total score per item by the number of experts (Polit & Beck, 2006). The validity test was conducted by researchers involving 3 experts (less than 5) so the I-CVI value is declared to have good validity if they have an I-CVI and S-CVI/Ave value equal to 1.00 (Yusoff, 2019).

The Correlation validity test was done by analyzing the relationship between the instrument score and the criterion score using Pearson Product Moment (Chander, 2018). The question item is declared valid if the r-count is greater than the r-table (>0.344) (Oja, 2023). The internal consistency of the instrument was carried out with Cronbach Alpha and declared reliable if the score was> 0.6 (Dahlan, 2014)

2.7 Ethical Clearance

All information provided by respondents will be kept confidential except for research purposes. This study has passed the ethical clearance process from the Ethics Commission of the Faculty of Medicine,

Public Health and Nursing, Universitas Gadjah Mada with the record number: KE/FK/1545/EC/2022.

3. RESULTS

The instrument translation process in this study was executed through various steps with the following results:

Forward Translation

The results of the forward translation by the two translators (T1 & T2) show that each translator used different Indonesian word choices in translating some words of this instrument. However, we identify that each word choice used has largely the same meaning and does not change the interpretation of the word from the original language.

Synthesis

The translated versions of the first translator (T1) and the second translator (T2) were then combined into one translation (T12). In this process we found that both translators had different word choices in translating some words such as “campus”, “become”, “like”, “school”, “scare”, “support”, “station”, “supervise”, “assign”, and “use” into the Indonesian language. The differences were then discussed and agreed upon together to resolve any discrepancies, resulting in a new version of the instrument translation that was consistent and contextually appropriate.

Backward translation

This process was carried out by identifying any changes in words or sentences in the translation of the instrument from Indonesian to English with the original version. The back-translation results of the first (BT1) and second (BT2) translators show differences in some words from the original instrument. The word changes include the words "like" to "enthusiastic", "institute" to "campus", "assign" to "carry out", "school session" to "lecture session", "clinical duty" and "clinical task" to "clinical practice", "scare" to "afraid", "favorable" to "positive", "provides" to "gives", "I have a question" becomes "I ask", "sufficient" to "complete", the sentence "meet the patient needs" becomes "address patients needs", "well" becomes "good", and "use" becomes "apply". Despite the slight differences, these word choices conveyed almost the same meaning and did not change the interpretation of the questions from the original instruments. Therefore, we concluded that all question items of the two instrument translations have the same meaning as the original version.

Expert Committee Review

The results of the Content Validity Index (CVI) test involving Individual Item Content Validity (I-CVI) and Scale Level Average (S-CVI/Ave) are presented in Table 1.

In this process, considering the semantic and idiomatic equivalence of the items, the experts suggested changes to the sentence selection and structure for items 2, 8, and 13 to make them easier to understand. The suggested change for question number 2 was the sentence "Saya menjalankan praktik klinik dengan sungguh-sungguh ketika saya mendapatkan tugas dari kampus" was changed to "Saya menjalankan praktik klinik dan tugas dari kampus dengan sungguh-sungguh". The change of number 8 is the word "Khawatir" changed to "Takut" because it refers to the context of the sentence in the original instrument. While the change in question number 13 was the sentence "Materi pada unit klinik cukup tersedia dengan baik bagi pasien dan saya" changed to "Fasilitas yang tersedia di klinik cukup lengkap bagi pasien dan saya" to make it easier to be understand.

The results of the content validity test in Table 1 above showed that the total I-CVI value on each statement item and S-CVI/Ave is 1.00, thus the instrument can be declared relevant and appropriate to be included.

Pre-testing

The validity test was carried out by distributing questionnaires to 33 nursing students who are currently taking clinical rotation education. More than half of the respondents in this study were 24 years old and all of them were female (100%). The instruments that have been filled by respondents were then analyzed. The results of the analysis can be seen in Tables 2 and 3.

Based on the analysis results in Table 3, it is known that question items number 3, 13, 22, 23, 24, and 25 have an r-count value smaller than the r-table (<0.344), so the question items are declared invalid. The results of the internal consistency test on 19 valid question items presented in Table 4 showed a value of $\alpha = 0.916$. It can be concluded that this instrument has excellent internal consistency.

4. DISCUSSION

An appropriate methodology is needed in the process of cross-cultural adaptation of an instrument to ensure that the validity and reliability of the instrument are maintained (Lino et al., 2018). The translation process in this study consisted of several stages including forward and back translation. The results of the forward translation process by two bilingual experts were in accordance with the original instrument and there was no ambiguity in the question sentences that had been translated by each translator. Therefore it can be concluded that the instrument translation from the two translators was considered good enough (Lumban Batu et al., 2014).
In the synthesis stage, it is known that the vocabulary used by the two translators at the forward translation stage was varied in some words but largely had the

Table 1. The results of the content validity test of nursing students' attitude toward clinical duties instrument in the Indonesian version

Original (English) Version	Indonesian Version	I-CVI	Interpretation	Recommendation	Mean I-CVI	S-CVI/ Ave
1. I like clinical duties	Saya merasa antusias melaksanakan praktik klinik.	1.00	Relevant	Included	1.00	1.00
2. I enjoy my clinical duties when assigned by my institute	Saya menjalankan praktik klinik dan tugas dari kampus dengan sungguh-sungguh	1.00	Relevant	Included		
3. When my duty is assign for clinical duties, I became nervous.	Ketika saya ditugaskan untuk melaksanakan praktik klinik, saya merasa gugup.	1.00	Relevant	Included		
4. I like clinical duties more than my school sessions	Saya lebih menyukai melaksanakan praktik klinik daripada mengikuti sesi kuliah saya.	1.00	Relevant	Included		
5. I like clinical duty, because I learn more practically.	Saya menyukai praktik klinik, karena saya dapat belajar melalui praktik.	1.00	Relevant	Included		
6. I like clinical tasks because it is enjoyable.	Saya menyukai praktik klinik karena kegiatan tersebut menyenangkan.	1.00	Relevant	Included		
7. I always make myself prepared for clinical duties.	Saya selalu menyiapkan diri untuk melaksanakan praktik klinik.	1.00	Relevant	Included		
8. I feel scare when interact with patients and duty staffs.	Saya merasa takut ketika berinteraksi dengan pasien dan petugas jaga.	1.00	Relevant	Included		
9. The nursing staffs show respect to the nursing students	Staf perawat menghormati mahasiswa keperawatan	1.00	Relevant	Included		
10. The hospital where my duty is assigns his favorable for me	Rumah sakit tempat saya praktik memberikan dampak positif bagi saya.	1.00	Relevant	Included		
11. The hospital supervisor frequently interacts with me in clinical stations.	Supervisor rumah sakit sering berinteraksi dengan saya di stase klinik.	1.00	Relevant	Included		
12. My clinical instructor provides me positive feedback when I have a question	Instruktur klinik memberi saya *feedback* positif ketika saya bertanya.	1.00	Relevant	Included		
13. Sufficient materials are available in my clinical station for patients and for me.	Fasilitas yang tersedia di klinik cukup lengkap bagi pasien dan saya.	1.00	Relevant	Included		
14. My pleasure is to meet the patient needs	Saya merasa senang jika saya dapat memenuhi keperluan pasien.	1.00	Relevant	Included		
15. I maintain the dignity of patient	Saya menjaga martabat pasien.	1.00	Relevant	Included		
16. The assign staff supervise me in my clinical practice	Pembimbing mengawasi pelaksanaan praktik klinis saya.	1.00	Relevant	Included		

Table 1. The results of the content validity test of nursing students' attitude toward clinical duties instrument in the Indonesian version

Original (English) Version	Indonesian Version	I-CVI	Interpretation	Recommendation	Mean I-CVI	S-CVI/ Ave
17. I feel proud to introduce myself as a nurse to patient	Saya merasa bangga untuk memperkenalkan diri sebagai perawat kepada pasien.	1.00	Relevant	Included		
18. Nurses as a job which is needed by the community	Perawat merupakan pekerjaan yang sangat dibutuhkan oleh masyarakat.	1.00	Relevant	Included		
19. During clinical duties, the staff members communicate well with me	Selama praktik klinik, anggota staf menjalin komunikasi yang baik dengan saya.	1.00	Relevant	Included		
20. Other medical staff shows respect to nurses and nursing students	Staf medis lainnya menghormati perawat dan mahasiswa keperawatan.	1.00	Relevant	Included		
21. The clinical skills I learn in hospital, I applied it in my community and home	Keterampilan klinik yang saya pelajari di rumah sakit dapat saya terapkan di masyarakat dan rumah saya.	1.00	Relevant	Included		
22. I think the present hospital I assign is not good for me	Menurut saya rumah sakit tempat saya praktik saat ini tidak menguntungkan bagi saya.	1.00	Relevant	Included		
23. I find difficulty in learning the clinical skills	Saya menemukan kesulitan dalam mempelajari keterampilan klinik.	1.00	Relevant	Included		
24. A clinical duty is interesting to use theoretical knowledge into skills	Tugas klinik merupakan hal yang menarik karena saya dapat mengaplikasikan teori pada keterampilan.	1.00	Relevant	Included		
25. I feel that the theoretical knowledge I learn in institute is necessary for clinical practice	Saya merasa bahwa pengetahuan teoretis yang saya pelajari di kampus diperlukan untuk pelaksanaan praktik klinik.	1.00	Relevant	Included		

Table 2. Demographic characteristics of respondents (n=33)

Variables	n	%	Min	Max
Age (Year)				
23	14	42.4	23	25
24	17	51.5		
25	2	6.1		
Gender				
Female	33	100		

Table 3. Correlation validity test of nursing students' attitudes towards clinical duties instrument in Indonesian version.

	Questions	r-count	r-table	Interpretation
1.	Saya merasa antusias melaksanakan praktik klinik.	0.780**	0.344	Valid
2.	Saya menjalankan praktik klinik dan tugas dari kampus dengan sungguh-sungguh	0.488**	0.344	Valid
3.	Ketika saya ditugaskan untuk melaksanakan praktik klinik, saya merasa gugup.	0.322	0.344	Not Valid

Questions	r-count	r-table	Interpretation
4. Saya lebih menyukai melaksanakan praktik klinik daripada mengikuti sesi kuliah saya.	0.620**	0.344	Valid
5. Saya menyukai praktik klinik, karena saya dapat belajar melalui praktik.	0.727**	0.344	Valid
6. Saya menyukai praktik klinik karena kegiatan tersebut menyenangkan.	0.784**	0.344	Valid
7. Saya selalu menyiapkan diri untuk melaksanakan praktik klinik.	0.345*	0.344	Valid
8. Saya merasa takut ketika berinteraksi dengan pasien dan petugas jaga.	0.429*	0.344	Valid
9. Staf perawat menghormati mahasiswa keperawatan	0.655**	0.344	Valid
10. Rumah sakit tempat saya praktik memberikan dampak positif bagi saya.	0.767**	0.344	Valid
11. Supervisor rumah sakit sering berinteraksi dengan saya di stase klinik.	0.459**	0.344	Valid
12. Instruktur klinik memberi saya *feedback* positif ketika saya bertanya.	0.713**	0.344	Valid
13. Fasilitas yang tersedia di klinik cukup lengkap bagi pasien dan saya.	0,340	0.344	Not Valid
14. Saya merasa senang jika saya dapat memenuhi keperluan pasien.	0.458**	0.344	Valid
15. Saya menjaga martabat pasien.	0.623**	0.344	Valid
16. Pembimbing mengawasi pelaksanaan praktik klinis saya.	0.623**	0.344	Valid
17. Saya merasa bangga untuk memperkenalkan diri sebagai perawat kepada pasien.	0.707**	0.344	Valid
18. Perawat merupakan pekerjaan yang sangat dibutuhkan oleh masyarakat.	0.712**	0.344	Valid
19. Selama praktik klinik, anggota staf menjalin komunikasi yang baik dengan saya.	0.748**	0.344	Valid
20. Staf medis lainnya menghormati perawat dan mahasiswa keperawatan.	0.746**	0.344	Valid
21. Keterampilan klinik yang saya pelajari di rumah sakit dapat saya terapkan di masyarakat dan rumah saya.	0.742**	0.344	Valid
22. Menurut saya rumah sakit tempat saya praktik saat ini tidak menguntungkan bagi saya.	0.186	0.344	Not Valid
23. Saya menemukan kesulitan dalam mempelajari keterampilan klinik.	0.230	0.344	Not Valid
24. Tugas klinik merupakan hal yang menarik karena saya dapat mengaplikasikan teori pada keterampilan.	0.190	0.344	Not Valid
25. Saya merasa bahwa pengetahuan teoretis yang saya pelajari di kampus diperlukan untuk pelaksanaan praktik klinik.	0.260	0.344	Not Valid

Pearson Product Moment Test: *p< 0.05; **p< 0.01

Table 4. Internal consistency test using Cronbach alpha of questionnaire items Nursing students' attitudes towards clinical rotation learning Indonesian version

Cronbach Alpha Test	Number of Items
0.916	19

shows that the synthesis stage of the translation process ensured that the Indonesian version of the instrument was faithful to the original language. This process was effective in maintaining the integrity and accuracy of the content, thus supporting the validity of the instrument for use in the study (Cruchinho et al., 2024).

The back-translation serves to check validity (Beaton et al., 2000). The back-translation step of the synthesized instrument translation in this study revealed that both translators had different versions of translating some words from Indonesian to English. However, despite the differences, we analyzed that the word preference used by all translators had conceptual similarities with the original instrument and did not change the interpretation of the question items. Therefore, it was not considered an obstacle in the translation process of this instrument (Hidayat et al., 2020).

The expert committee review in Table 1 revealed that each item of this instrument had an I-CVI and S-CVI/Ave score of 1.00. It's because all experts gave a score of 3 and 4 in assessing the relevance of the question item. It is revealed that all items in this instrument were considered relevant by the experts to the context or construct to be measured, and are easy to understand. These results show a positive indication regarding the suitability and accuracy of the items in the instrument (Polit & Beck, 2006).

The pre-testing step was carried out by examining the Indonesian version of the instrument directly on nursing students who undergoing clinical rotation education. Most of the respondents were 24 years old. These results are supported by Neumbe et al (2023)in their study which mentioned that 66.7% of nursing students in the clinical rotations step were aged between 20 and 24 years. Likewise, the research conducted by Amponsah et al (2019) revealed that the average age of clinical rotation students is 24 years old.

The majority of respondents in this study were female. According to (Neumbe et al., 2023), the number of nursing profession students with female gender occurs because women are known for their painstaking, friendly, and compassionate so women are said to be suitable to become nurses, so the majority of nurses are female.

The results of the correlation validity test showed that of the 25 question items tested, it turned out that 6 of them had an r-count value <r-table so they were declared invalid, including item numbers 3, 13, 22, 23, 24, and 25. The invalidity of these items is thought to be caused by various factors. We identified that most of the invalid question items in this study were in the unfavorable form. Sonderen et al. (2013) stated that negatively worded items can confuse respondents, especially if the item uses negative statements or affix morphemes. Einola & Alvesson (2021) explained that the lack and difficulty of respondents in understanding the context of the question items asked in the instrument can affect the answers given by respondents. Smith (2014) revealed that without a good understanding, respondents may provide responses that do not align with the intended meaning of the original questions. It can reduce the accuracy of the data collected because impact on measurement inequality, response bias, and even inaccuracy. However, in this study, researchers always motivate and provide opportunities for respondents to ask questions if they encounter words or sentences in questions that are difficult to understand, during the data collection process.

The next possibility is the change in the data scale from the original instrument Sudaryono et al. (2019) In this study, researchers change the data scale of the instrument from nominal with the answer options "Yes" or "No" to a Likert scale with 5 answer options "Strongly Disagree", "Disagree", "Moderately Agree", "Agree", and "Strongly Agree". The purpose of this change is to make this instrument can explore the answers of the respondents deeper than an original scale, so we can obtain richer and better-quality information. However, this form of a question with odd answer scale options may unwittingly make respondents tend to choose the answer in the middle (Aston et al., 2021).

The number of samples can also be one of the factors that influence the results of the research instrument validity test. Based on the guidelines from Beaton et al. (2000) and Sugiyono (2014) the sample size in this study is considered sufficient and meets the minimum requirements for the number of respondents to test the validity and reliability of the instrument (≥30 respondents). However, several previous studies stated that a greater number of respondents can reflect the characteristics of a wider population, make it easier to generalize the results of the study, increase accuracy in measuring validity, and increase the stability of the validity parameter estimates including the correlation coefficient (Chander, 2018). So, the use of a larger sample size in instrument testing is recommended. Therefore, we tried to obtain as many samples as possible by distributing questionnaires to all clinical rotation students who were taking the final clinical practice in that period. Nevertheless, of the 60 students, only 33 were willing to be involved in the research process even though several follow-ups had been carried out. Likewise with gender. Variations in the gender of respondents can increase the validity of the instrument, because males and females may have different assessments and attitudes towards certain situations and conditions (Wesson et al., 2022).

The original English version of this instrument has been tested for reliability for internal consistency of the study instrument and the Kuder Richardson-20 (KR-20) and the result was 0.91 (Sultan et al., 2022). These results indicate a high level of consistency between items of the instrument. In this study, the 19 question items on the instrument were declared valid with a Cronbach alpha value $\alpha = 0.916$. This shows that this instrument has excellent internal consistency (Taber, 2018). These results in this study can be influenced by various factors such as the number of test items, the level of test difficulty, the objectivity of the assessment, the method for estimating reliability, and the homogeneity of the test (Yusoff, 2019). Therefore, to be able to produce a reliable adaptation instrument, compliance at each stage of the research according to the guidelines is necessary.

5. CONCLUSION

The process of translating nursing students' attitudes towards clinical rotation duties instrument has been carried out according to the stages of cross-cultural adaptation and validation procedures. The results of the content validity test showed that this instrument had good mean I-CVI and S-CVI/Ave scores, where all question items were declared relevant. Meanwhile, the Correlation Validity Test resulted in 19 valid

question items out of 25 questions, with excellent internal consistency values. According to those results, the instrument can be considered valid and reliable. Therefore, this instrument can be used to measure nursing students' attitudes towards the clinical rotation learning process in Indonesia accurately and effectively.

However, this study has limitations. Although based on the instrument translation guidelines that we use, the sample size for this instrument is said to be sufficient, testing the instrument with a larger sample size with both male and female respondents is highly recommended to increase its accuracy and generalization to a more diverse group. Apart from that, testing the validity and reliability of the instrument using other methods should be carried out in further research.

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7. CONFLICT OF INTEREST

Hereby the researcher declared that there is no potential conflict of interest in this research.

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