

Development and Validation of Indonesian Nurses Professors Assessment Tools; Content Validation

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ABSTRACT

The profession of health workers such as nurses has always been a concern. The role of nursing professors in Indonesia. Good points are needed, including the potential relevance of the research to address the country's problem in defining the role of the nursing professor, which is needed for a more precise professional direction. The validity of the tools was determined by assessing the validity of the content, using the content validity index (CVI) of 6 experts in the field of nursing. Of the eight instruments to measure the role of nursing professors in Indonesia, after calculating the CVI, there is one instrument that is not valid with a CVI value of 0.81, so it cannot be used to measure the role of nursing professors in Indonesia, the instrument on Services outside the University. The valid instruments are about the role of leadership, authority, research and scholarship, teaching, and acquisition of resources both internally and externally, which support scientific activities, power of communication, and Services to the Wider University Community. It is hoped that prospective nursing professors can improve their quality according to the existing and valid indicators in the instrument that has been built.

Keywords: Assessing, Indonesia, Instrument, Professors, Validity

BACKGROUND

This tool has only become a guideline for a nursing professor in the academic field, not yet playing a role in a clinic or hospital environment. Measuring the validity of the instrument's content is essential. This type of validity can help ensure validity and give readers and researchers confidence in the instrument. Content validity refers to the degree to which the instrument includes the content it is supposed to measure. The absence of research that discusses measuring instruments to measure the role of nursing professors in Indonesia is the main reason this research needs to be done.

Nursing Competency Standards are intended to assure the community in getting services in the form of nursing care by competent nurse(Fukada, 2018). Nursing service is a form of professional service that is an integral part of health services based on Nursing knowledge and tips for healthy individuals, families, groups, or communities (Karami et al., 2017).

A nurse's desire to earn the title of professor in nursing deserves an honour(Kavanagh and



Szweda, 2017). Through high abilities and desires, it is not enough that nursing academics continue to work hard to achieve the highest degree at the tertiary institution. The requirements for a person to become a professor in Indonesia, according to the PAN-RB Regulation 46 of 2013, are as follows: Have a doctoral certificate (S3) or the equivalent At least three years after obtaining a doctorate certificate. Having scientific papers published in international journals has a reputation. They have work experience as a lecturer for at least ten years (JDIH BPK RI, 2013).

With the increasing number of professors in the field of nursing at universities in Indonesia, it can bring the nursing profession in a better direction, significantly improving the quality of nursing personnel. By adding professors 'enthusiasts at this time, it can inspire others to increase enthusiasts for future professors' titles so that they can compete with other professional, scientific disciplines. Nurses already have expertise from specialist education and doctoral education, and there are even ten professors in Indonesia. The primary role is to keep emphasizing the caring aspect.

This study aims to develop and test the validation of the Indonesian Nurse Professor Assessment Tools. The measuring instruments to be tested for validity of Indonesian Nurses Professors Assessment Tools.

METHODS

As a measuring tool, this statement measures the role one must perform as a qualified nursing professor. So before this tool is valid for use, it is necessary to test its validity of the tool first (Parsaeian et al., 2021). This study uses a quantitative approach with analytic observational research designs and cross-sectional data designs. Inclusion criteria are general requirements that respondents must fulfil to be used as respondents. The inclusion criteria in this study were:

- 1. Nurses who are still actively working in educational institutions as teachers.
- 2. Nurses with a history of working as nurse lecturers for at least ten years.
- 3. Minimum education history of master's degree in nursing
- 4. Member of the Indonesian national nurses association.
- 5. Willing to be a respondent in this study.

When this tool is valid, those experts will not be respondents in further research as a trial. Research Instruments based on Acceptable Content Validity Index values 0.83 (Polit and Beck, 2006). The steps for getting results based on the six steps of content validation are preparing the content validation form, Selecting a panel of experts, Conducting content validation, Reviewing domains and items, Providing a score on each item, and calculating CVI (Yusoff, 2019). The measured data scale in this study is the Ordinal scale requiring a nonparametric statistical test (Creswell, J. W, 2012). The instrument consists of 8 categories; each category measures the role that the nursing professor must perform.

The type and format of this question is a closed statement, where each statement has two answer choices, then the expert corrects and chooses an answer with the answer choices for each question are agree or disagree. The response from all the experts on this instrument is that it is essential to develop this tool as a guide so that a nursing professor does not forget what role he has to play.

This instrument consists of 8 categories. Each category in the instrument has a statement of 5 to 9 statement items.



This expert validity score uses the content validity index benchmark per item of the statement being tested (I-CVI). The I-CVI score is the item-level which is The proportion of content experts giving items a relevance rating of 3 or 4 with the calculation formula I-CVI = (agreed item)/(number of experts). Each statement item valid if the total value of the count is At least six experts and At least 0, 83. Tool development ideally involves item generation, feedback, validation, and initial testing. However, in this study, it is only limited to facial validation.

RESULT

Based on input from experts, this tool will be used in the future only as a guide for a nursing professor in the academic field, not yet playing its role in a clinic. The results of this study are limited to testing the facial validity of the tool, which is expected to guide nursing professors in carrying out their roles in academics. This instrument is not a tool or data for someone who meets the requirements to become a nursing professor, nor does it produce a tool that produces a professorship level.

No	Name Initial	Age(Years (old	Degree of graduation	Gender	r Position on the Job
1.	Mr. W	41	Master of Nursing and Psychiatric nursing specialist	Male	Quality assurance of the faculty of health
2.	Mrs. M	52	Manter on nursing Science	Female	and research
3.	Mrs. L	37	Manter on nursing Science	Female	Coordinator of the academic field of the undergraduate nursing program
4.	Mr. MM	35	Master of Nursing and Community nursing specialist	Male	Quality assurance of undergraduate nursing program
5.	Mrs. V	33	Manter on nursing Science	Female	Quality assurance of the University
6.	Mr. R	35	Master of Nursing and Community nursing specialist	Male	Coordinator of internal and external cooperation of nursing study program

In this study, researchers have chosen experts to review and criticize the questionnaire about the role of Indonesian nursing professors that should be carried out. The number of experts who have been selected is six people with a master's education background and nursing specialists who graduated in domestic and foreign educational institutions.

<Table 2> The Relevance Ratings on the Item Scale by Six Experts on The Established And Personal Chairs.

Expert (X)	Q1	Q2	Q3	Q4	Q	5Q6	Q7	Q8	BTotal	Proportion Relevance	
X 1	1	1	1	1	1	1	1	1	8	1	Average proportion of
X 2	1	0	1	1	1	0	1	1	6	0,75	item judged as
X 3	1	1	1	1	1	0	1	1	7	0,875	relevance across the
X 4	0	1	1	1	1	1	1	1	7	0,875	six expert
X 5	1	1	1	1	1	1	1	1	8	1	
X 6	1	1	1	1	1	1	1	1	8	1	
											0,92
Expert in agreemen	nt 5	5	6	6	6	4	6	6			
I-CVI	0,83	30,83	8 1	1	1	0,7	1	1	0,92		
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The resultsshow in the table below:

In the instrument of questions about leadership, after being tested by six experts and the value of the content validity was calculated, the result was 0.92, which means that this instrument is valid. The question about leadership that a nursing professor must apply is in the form of a total of 8 statements. Of 6 experts who were asked to review the instrument, only one considered the question less relevant to the content validity index value of 0.75, while the other five considered this instrument valid.

Expert	Q1	Q2	Q3	Q4	Q5	Total	Proportion Relevance					
EXPERT 1	1	0	1	1	1	4	0,8	-				
EXPERT 2	1	1	1	1	1	5	1	Average proportion of item				
EXPERT 3	1	0	1	1	1	4	0,8	judged as relevance across the				
EXPERT 4	1	1	1	1	1	5	1	six expert				
EXPERT 5	1	1	1	1	1	5	1					
EXPERT 6	1	1	1	1	1	5	1					
								0,93				
Expert in agreement	6	4	6	6	6							
I-CVI	1	0,667	1	1	1	0,93						

<Table 3> The Relevance Ratings On The Item Scale By Six Experts On The Academic Standing.

In the instrument on Academic Standing authority, after being tested by six experts and the content validity value was calculated, the result was 0.93, which means that this instrument is valid. The question regarding the Academic Standing authority that the nursing professor must apply is in the form of a statement of 5 statements. Of the six experts who were asked to review the instrument, all considered that it was valid and could be used to measure the role of nurse professors in Indonesia.

Expert (X)	Q,1	Q,2	2 Q,3	Q,4	Q,5	5 Q,6	Q7	'Q8	Q9)Total	Proportion Relevance	Average
X 1	0	1	1	0	1	0	1	1	1	6	0,67	proportion of
X 2	1	1	1	1	1	1	1	1	1	9	1	item judged
X 3	1	1	1	1	1	1	1	1	1	9	1	as relevance
X 4	1	1	0	1	1	1	1	1	1	8	0,89	across the six
X 5	1	1	1	1	1	1	1	1	1	9	1	expert
X 6	1	1	1	1	1	1	1	1	1	9	1	
												0,93
Expert in agreemen	nt 5	6	5	5	6	5	6	6	6			
I-CVI	0,833	3 1	0,833	0,833	1	0,833	8 1	1	1	0,93		

<Table 4> The Relevance Ratings On The Item Scale By Six Experts On The Research and Scholarship.

In the nurse professor role instrument on Research and Scholarships, after being tested by six experts and the value of the content validity was calculated, the result was 0.93, which means that this instrument is valid and can be used as a measuring tool. Questions about Research and Scholarships that a nursing professor must apply in the form of a statement with a total of 9 statements. Of the six experts who were asked to review the instrument, only one expert rated the question as less relevant to the content validity index value of 0.67; however,



because five other experts rated it more than 0.83, this instrument was believed to be valid.

Expert	q1	q2	q3	q4	q5	q6	q7	Total	Proportion Relevance	
EXPERT 1	1	1	1	1	1	1	1	7	1	-
EXPERT 2	1	1	1	1	1	1	1	7	1	Average proportion of item
EXPERT 3	1	1	1	1	1	0	1	6	0,86	judged as relevance across
EXPERT 4	1	1	0	0	1	1	1	5	0,71	the six expert
EXPERT 5	1	1	1	1	1	1	1	7	1	
EXPERT 6	1	1	1	1	1	1	1	7	1	
										0,93
Expert in agreement	6	6	5	5	6	5	6			
I-CVI	1	1 (),833	30,833	31(),83	31	0,93		

<Table 5> The Relevance Ratings On The Item Scale By Six Experts On The Teaching Role

In the nurse professor role instrument about Teaching Role, after being tested by six experts and the content validity value was calculated, the result was 0.93, which means that this instrument is valid and can be used as a measuring tool. A nursing professor must apply questions about the Teaching Role in the form of a statement with seven statements. Of the six experts who were asked to review the instrument, only one expert judged the question to be less relevant with a content validity index value of 0.71; however, because the other five experts rated it more than 0.83, this instrument was believed to be valid.

Resources.												
Expert	Q	1Q	2Q	<u>)</u> 3	SQ -	4Q :	5 Q 6	Q	7Q 8	BTotal	Proportion Relevance	
EXPERT 1	1	1	L	1	1	1	1	1	1	8	1	A voyage properties of
EXPERT 2	1	1	L	1	1	1	1	1	1	8	1	Average proportion of
EXPERT 3	1	1	L	1	1	1	1	1	1	8	1	item judged as relevance
EXPERT 4	1	1	L	1	1	1	0	1	1	7	0,88	across the six expert
EXPERT 5	1	1	L	1	1	1	1	1	1	8	1	
EXPERT 6	1	1		1	1	1	1	1	1	8	1	
												0,98
Expert in agreement	6	6	5	6	6	6	5	6	6			
I-CVI	1	1		1	1	1	0,833	3 1	1	0,98		

<Table 6> The Relevance Ratings On The Item Scale By Six Experts On The Acquisition of Resources.

<Table 7> The Relevance Ratings On The Item Scale By Six Experts On The Powers of Communication.

Expert	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Total	Proportion Relevance	
1	1	1	1	1	1	1	1	7	1	Avanage properties of item
2	1	1	1	1	1	1	1	7	1	Average proportion of item
3	1	1	1	1	1	1	1	7	1	judged as relevance across
4	0	0	1	0	1	0	0	2	0,29	the six expert
5	1	1	1	1	1	1	1	7	1	
6	1	1	1	1	1	1	1	7	1	
										0,88



Expert in	5	5	6	5	6	5	5						
agreement I-CVI	0,83	0,83	1	0,83	1	0,83	30,8	0,88	3				

In the nurse professor role instrument about The Acquisition of Resources, after being tested by six experts and calculating the content validity value, the result was 0.98, which means that this instrument is valid and can be used as a measuring tool. Questions about The Acquisition of Resources must be applied by a professor of nursing care in the form of statements with a total of 8 statements. Of the six experts who were asked to review the instrument, all experts rated this instrument as valid.

In the nurse professor role instrument about The Powers of Communication, after being tested by six experts and calculating the content validity value, the result was 0.88, which means that this instrument is valid and can be used as a measuring tool. Questions about The Powers of Communication that a nursing professor must apply are statements with a total of 7 statements. Of the six experts who were asked to review the instrument, there was one expert who considered it less relevant.

Expert	Q1	Q2	Q3	Q4	Q5	6Q6	Q7	Total	Proportion Relevance	
EXPERT 1	1	1	1	1	1	1	1	7	1	Avaraga propertion of item
EXPERT 2	1	1	1	1	1	1	1	7	1	Average proportion of item judged as relevance across the
EXPERT 3	0	1	1	1	1	1	1	6	0,86	
EXPERT 4	1	1	1	1	1	1	1	7	1	six expert
EXPERT 5	1	1	1	1	1	1	1	7	1	
EXPERT 6	1	1	1	1	1	1	1	7	1	
										0,98
Expert in agreement	5	6	6	6	6	6	6			
I-CVI	0,833	1	1	1	1	1	1	0,98		

<Table 8> The Relevance Ratings On The Item Scale By Six Experts On The Services to the Wider University Community.

In the nurse professor role instrument about The Services to the Wider University Community, after being tested by six experts and calculating the content validity value, the result was 0.98, which means that this instrument is valid and can be used as a measuring tool. The question of the Wider University Community that a nursing professor should apply is a statement with a total of 7 statements. Of the six experts who were asked to review the instrument, all rated the instrument developed as valid.

<**Table 9**> The Relevance Ratings On The Item Scale By Six Experts On The Services to the Services Outside the University.

Expert	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Total	Proportion Relevance	
EXPERT 1	1	1	0	0	0	0	0	2	0,29	-
EXPERT 2	1	1	1	1	1	1	1	7	1	Average proportion of item indeed as relevance
EXPERT 3	1	1	1	0	0	1	1	5	0,71	item judged as relevance
EXPERT 4	0	1	1	1	1	1	1	6	0,86	across the six expert
EXPERT 5	1	1	1	1	1	1	1	7	1	
EXPERT 6	1	1	1	1	1	1	1	7	1	



0,81

Expert in	5	6	5	Δ	Δ	5	5	
agreement	5	0	5	т	т	5	5	
I-CVI	0,83	1	0,83	0,67	0,67	0,83	0,83 0,81	

In the nurse professor role instrument regarding The Services to the Services outside the University, after being tested by six experts and calculating the value of the content validity, the result was 0.81, which means that this instrument is less valid and cannot be used as a measuring tool because it needs improvement. The question about The Services to the Services outside the University that a nursing professor should apply is a statement with a total of 7 statements. Of the six experts who were asked to review the instrument, two experts judged that this instrument was not valid and needed to be corrected.

Established and Personal Chairs

In the instrument of questions about leadership, after being tested by six experts and the value of the content validity was calculated, the result was 0.92, which means that this instrument is valid. The question about leadership that a nursing professor must apply is in the form of a total of 8 statements. Of 6 experts who were asked to review the instrument, only one considered the question less relevant to the content validity index value of 0.75, while the other five considered this instrument valid.

Academic Standing

In the instrument on Academic Standing authority, after being tested by six experts and the content validity value was calculated, the result was 0.93, which means that this instrument is valid. The question regarding the Academic Standing authority that the nursing professor must apply is in the form of 5 statements. Of the six experts who were asked to review the instrument, all considered that it was valid and could be used to measure the role of nurse professors in Indonesia.

Research and Scholarship

In the nurse professor role instrument on Research and Scholarships, after being tested by six experts and the value of the content validity was calculated, the result was 0.93, which means that this instrument is valid and can be used as a measuring tool. Questions about Research and Scholarships that a nursing professor must apply in the form of a statement with a total of 9 statements. Of the six experts who were asked to review the instrument, only one expert rated the question as less relevant to the content validity index value of 0.67; however, because five other experts rated it more than 0.83, this instrument was believed to be valid.

Teaching

In the nurse professor role instrument about Teaching Role, after being tested by six experts and the content validity value was calculated, the result was 0.93, which means that this instrument is valid and can be used as a measuring tool. A nursing professor must apply questions about the Teaching Role in the form of a statement with seven statements. Of the six experts who were asked to review the instrument, only one expert judged the question to be less relevant with a content validity index value of 0.71; however, because the other five experts rated it more than 0.83, this instrument was believed to be valid.

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Acquisition of Resources

In the nurse professor role instrument about The Acquisition of Resources, after being tested by six experts and calculating the content validity value, the result was 0.98, which means that this instrument is valid and can be used as a measuring tool. Questions about The Acquisition of Resources must be applied by a professor of nursing care in the form of statements with a total of 8 statements. Of the six experts who were asked to review the instrument, all experts rated this instrument as valid.

Powers of Communication

In the nurse professor role instrument about The Powers of Communication, after being tested by six experts and calculating the content validity value, the result was 0.88, which means that this instrument is valid and can be used as a measuring tool. Questions about The Powers of Communication that a nursing professor must apply are statements with a total of 7 statements. Of the six experts who were asked to review the instrument, there was one expert who considered it less relevant.

Services to the Wider University Community

In the nurse professor role instrument about The Services to the Wider University Community, after being tested by six experts and calculating the content validity value, the result was 0.98, which means that this instrument is valid and can be used as a measuring tool. The question of the Wider University Community that a nursing professor should apply is a statement with a total of 7 statements. Of the six experts who were asked to review the instrument, all experts rated the instrument developed as valid.

Services outside the University

In the nurse professor role instrument regarding The Services to the Outside the University, after being tested by six experts and calculating the value of the content validity, the result was 0.81, which means that this instrument is less valid and cannot be used as a measuring tool because it needs improvement. The question about The Services to the Services outside the University that a nursing professor should apply is a statement with a total of 7 statements. Of the six experts who were asked to review the instrument, two experts judged that this instrument was not valid and needed to be corrected.

DISCUSSION

The role is a manifestation of behavior by the individual position(Sveinsdóttir et al., 2006; Veda and Roy, 2020). The Doctor of Nursing Practice (DNP) degree is a relatively new title; therefore, the role of the Doctoral Advanced Practice Nurse has not been clearly defined in many settings. Although in Indonesia, the title of nursing professor is a functional title given by the government to someone if they have passed the doctoral education level requirements, scientific publication, community service, seminar certificate, and teaching history, so that if someone has reached specific points required by the government through Department of Education and Ministry of Research (DIKTI), then someone will get the title of professor of nursing. Of course, not only titles but their roles must also be measured. For this reason, an instrument is needed to become a reference for measuring the role of nurse professors in Indonesia.

The statement about the leadership role that must be applied by a nursing professor in the form of a statement developed with a total of 8 statements is considered valid by the expert. The development of a nurse professor role instrument in Indonesia has also been adjusted that



the role of a professor as an intellectual is a leader and role model (Nuryanti et al., 2017; Sandehang et al., 2019). This instrument is also in line with which states that the view of leadership puts structure in place by way of top-down command and control does not always lead to practical results or change people's behaviour. Leadership components: charismatic and inspirational, intellectually stimulating, and individually caring. The charisma factor is then called the Idealization Effect, separated from the inspirational factor (Inspirational Motivation) (Chebon et al., 2019; K. Kariuki, 2021; Pitts and Zhang, 2020).

The Academic Standing Authority reviews the statement regarding the role of nursing professors in Indonesia; after being tested by six experts and calculating the content validity value, the instrument's results are declared valid. There are five statements developed(Helmstadter, 2008). The development of an instrument for the role of professor of nurses in Indonesia has also been adjusted to the opinion that the legal authority of a professional nurse determines success in providing highly competent nursing services (Hamric et al., 1998). Another view of authority is that groups and individuals must balance authority and collegiality to form the best relationship(Creswell, J. W, 2012).

The research and scholarship reviewed the statement regarding the role of nursing professors in Indonesia; after being tested by six experts and calculating the content validity value, the instrument was declared valid. There are nine statements developed. Based on the ability to do data-based research is needed, open discussions about possible solutions and studies based on standards looking for positive patterns also need to be developed(Sutton and Austin, 2015). This instrument also adopts the role of the Nightingale scientist, who described that a nurse must have an insatiable curiosity, mastery of the research subject, familiarity with the inquiry method, a good background in research and statistics, and discriminatory and abstract abilities(Creswell, J. W, 2012). On the other hand, a nursing professor should also have the ability to access academic records in the field of research. This is because the integration of facts and knowledge synthesis is obtained from the scope of clinical scholarship(Korniewicz, 2015). Nursing professors apply knowledge to solve problems and develop new ways of imparting knowledge to others. The research that the profession should to exemplary professors (owners of a healthy heart) have spiritual health, Daily Self-Care, adherence to a good lifestyle, recognition in religion, to achieve moral virtue: Wisdom, Chastity, Courage, Justice, Generosity, Dignity of the soul. An essential role as part of the hidden curriculum (Asadzandi, 2017).

The instrument statement regarding the role of nursing professors in Indonesia is seen from the role of teaching; after being tested by six experts and calculating the content validity value, the instrument was declared valid. There are seven statements developed. The development of this research instrument also refers to the opinion that a professional nurse must be involved in a genuine teaching-learning experience in caring relationships while paying attention to people as a whole(Creswell, J. W, 2012). Four relevant themes associated with successful university teaching were identified: Presence, Promotion of Learning, Teachers as Learners, and Enthusiasm(Rossetti and Fox, 2009).

Instrument statements regarding the role of nursing professors in Indonesia are seen from the Acquisition of Resources, both internally and externally, which support scientific activities. After being tested by six experts and the value of the content validity was calculated, the instrument was declared valid. There are eight statements developed. The development of an instrument for the role of professor of nurses in Indonesia has also been adjusted to the opinion that critical thinking gives professional nurses the power to understand things on purpose and choose how to respond best to events (Masters, 2015).

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Internal and external resource acquisition that supports scientific activities in this instrument can also be interpreted as a nurse professor's socialization ability, where the socialization in question is guided by the view that professional nursing acquires knowledge, skills, and a sense of identity characterizes the profession. Nursing professors need a broad knowledge base for practice and solid communication, critical reasoning, clinical assessment, and assessment skills. In addition, professional nursing requires developing an appropriate value set and ethical framework for practice(Dinmohammadi et al., 2013; Ghadirian et al., 2014; Zarshenas et al., 2014).

Instrument statement about the role of nursing professors in Indonesia is seen from the Powers of Communication. After being tested by six experts and the value of the content validity was calculated, the instrument was declared valid. There are seven statements developed. The development of an instrument for the role of professor of nurses in Indonesia has also been adjusted to the opinion that communication skills by conveying the mission with a clear and a convincing sense of purpose and an organizational structure to promote and recognize high performance need to be built(Creswell, J. W, 2012).

Instrument statement about the role of nursing professors in Indonesia is seen from Services to the Wider University Community. After being tested by six experts and the value of the content validity was calculated, the instrument was declared valid. There are seven statements developed. The instrument on Services to the Wider University Community is defined as coaching the Executive of the Broader University Community, which is a leadership development intervention that can guide new nursing professors through role transitions and towards greater leadership awareness. It focuses on helping colleagues exploit their best potential, both in achieving success and in their role responsibilities, and finding their own best ways to achieve goals. The executive coaching process involves a relationship of mutual respect and engagement between the coach and the person to be mentored to generate feedback and support for growth and development (Patricia D'Antonio, 2012)(Black, 2013).

Instrument statement about the role of the nursing profession in Indonesia is seen from Services Outside the University. After it was tested by six experts and the value of the content validity was calculated, the instrument was declared less valid because there were two experts whose calculated value of CVI was below 0.83. There are seven statements developed. The instrument development for the role of professor of nurses in Indonesia has also been adjusted to collaboration between professionals to improve abilities, and a more expansive role is needed by professional nurses.

CONCLUSION

This study concludes that the instrument has been developed from the theory and results of other previous studies. Of the eight instruments to measure the role of nursing professors in Indonesia, one instrument is somewhat relevant so that it cannot be used to measure the role of nursing professors in Indonesia, namely the instrument on Services outside the University. However, on the other hand, seven other instruments are valid. They can be used to measure the role of nursing professors in Indonesia, namely the role of leadership, authority, research and scholarship, teaching, and Acquisition of Resources both internally and externally, which support scientific activities, power of communication, and Services to the Wider University Community. This research is limited to testing the tool's validity, which can later become a guide for nursing professors to carry out their role in academics. This instrument is not a tool or data for someone who meets the requirements to become a nursing professor, nor does it produce a tool that produces a professorship level, but it is hoped that prospective nursing professors can improve their quality according to the existing and valid indicators in the



instrument that has been built.

Statement of Authorship

All authors participated in data collection and analysis,

Moreover, the manuscript approved the final version submitted.

Author Disclosure

All authors declared no conflicts of interest.

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REFERENCES

- Asadzandi, M., 2017. Professors, spiritual characteristics for role- modeling education. Education Strategies in Medical Sciences 10, 23–35.
- Black, B.P., 2013. Professional Nursing: Concepts & Challenges. Elsevier Health Sciences.
- Chebon, S., Aruasa, W., Chirchir, L., 2019. Effect of Inspirational, Motivation, and Idealized Influence on Employee Performance at Moi Teaching and Referral Hospital. International Journal of Business and Social Science 10. https://doi.org/10.30845/ijbss.v10n7p14
- Creswell, J. W, 2012. Educational Research: Planning Conducting and Evaluating. Quantitative and Qualitative Research, 4th ed. Pearson Education Inc, Boston.
- Dinmohammadi, M., Peyrovi, H., Mehrdad, N., 2013. Concept Analysis of Professional Socialization in Nursing. Nursing Forum 48, 26–34.
- Fukada, M., 2018. Nursing Competency: Definition, Structure and Development. Yonago Acta Med 61, 1–7.
- Ghadirian, F., Salsali, M., Cheraghi, M.A., 2014. Nursing professionalism: An evolutionary concept analysis. Iran J Nurs Midwifery Res 19, 1–10.
- Hamric, A.B., Worley, D., Lindebak, S., Jaubert, S., 1998. Outcomes associated with advanced nursing practice prescriptive authority. J Am Acad Nurse Pract 10, 113–118.
- Helmstadter, C., 2008. Authority and leadership: the evolution of nursing management in 19th century teaching hospitals. J Nurs Manag 16, 4–13.
- JDIH BPK RI, 2013. Permen PAN & RB No. 46 Tahun 2013 tentang Perubahan atas Peraturan Menteri Pendayagunaan Aparatur Negara dan Reformasi Birokrasi Nomor 17 Tahun 2013 tentang Jabatan Fungsional Dosen dan Angka Kreditnya [JDIH BPK RI] [WWW Document]. URL https://peraturan.bpk.go.id/Home/Details/132809/permen-pan-rb-no-46-tahun-2013 (accessed 6.17.22).
- K. Kariuki, J., 2021. Idealized Influence and Inspirational Motivation in a Microfinance Context: Review of Literature. International Journal of Organizational Leadership 10, 120–140. https://doi.org/10.33844/ijol.2021.60539
- Karami, A., Farokhzadian, J., Foroughameri, G., 2017. Nurses' Professional Competency and Organizational Commitment: Is it important for human resource management? PLoS One 12, e0187863.
- Kavanagh, J.M., Szweda, C., 2017. A Crisis in Competency: The Strategic and Ethical Imperative to Assessing New Graduate Nurses' Clinical Reasoning. Nurs Educ Perspect 38, 57–62. https://doi.org/10.1097/01.NEP.00000000000112
- Korniewicz, D.M., 2015. Nursing Leadership and Management: The Advanced Practice Role. DEStech Publications, Inc.
- Masters, K., 2015. Role Development in Professional Nursing Practice. Jones & Bartlett Publishers.
- Nuryanti, A., Nursalam, N., Triharini, M., 2017. Development of Performance Assessment Instrument, for Nurses Based on Web in Inpatient Unit. Jurnal Ners 12, 108–112.
- Parsaeian, M., Mahdavi, M., Saadati, M., Mehdipour, P., Sheidaei, A., Khatibzadeh, S., Farzadfar, F., Shahraz, S., 2021. Introducing an efficient sampling method for national surveys with limited



sample sizes: application to a national study to determine quality and cost of healthcare. BMC Public Health 21, 1414. https://doi.org/10.1186/s12889-021-11441-0

- Patricia D'Antonio, 2012. Nursing History Review, Volume 21: Official Journal of the American Association for the History of Nursing. Springer Publishing Company.
- Pitts, B.G., Zhang, J.J., 2020. Sport Business in the United States: Contemporary Perspectives. Routledge.
- Polit, D.F., Beck, C.T., 2006. The Content Validity Index: are you sure you know what's being reported? Critique and recommendations. Res Nurs Health 29, 489–497. https://doi.org/10.1002/nur.20147
- Rossetti, J., Fox, P.G., 2009. Factors related to successful teaching by outstanding professors: an interpretive study. J Nurs Educ 48, 11–16. https://doi.org/10.3928/01484834-20090101-09
- Sandehang, P.M., Hariyati, Rr.T.S., Rachmawati, I.N., 2019. Nurse career mapping: a qualitative case study of a new hospital. BMC Nurs 18, 31. https://doi.org/10.1186/s12912-019-0353-z
- Sutton, J., Austin, Z., 2015. Qualitative Research: Data Collection, Analysis, and Management. Can J Hosp Pharm 68, 226–231.
- Sveinsdóttir, H., Biering, P., Ramel, A., 2006. Occupational stress, job satisfaction, and working environment among Icelandic nurses: a cross-sectional questionnaire survey. Int J Nurs Stud 43, 875–889. https://doi.org/10.1016/j.ijnurstu.2005.11.002
- Veda, A., Roy, R., 2020. Occupational Stress Among Nurses: A Factorial Study with Special Reference to Indore City. Journal of Health Management 22, 67–77. https://doi.org/10.1177/0972063420908392

Yusoff, M., 2019. Content Validity Index Calculation. Education in Medicine Journal.

Zarshenas, L., Sharif, F., Molazem, Z., Khayyer, M., Zare, N., Ebadi, A., 2014. Professional socialization in nursing: A qualitative content analysis. Iran J Nurs Midwifery Res 19, 432–438.