



Development of Ethical Competence Self-assessment Tool for Korean Physical Therapists

JiYeon Cheon¹ , MyungChul Kim^{1,*} , HaeIn Kim¹  and Hyunsuk Kim¹ 

¹Department of Physical Therapy, Eulji University, Gyeonggi-do, Republic of Korea

Abstract:

Background: As society evolves, healthcare professionals face increasing ethical conflicts. Physical therapists, tasked with patient well-being, encounter unique dilemmas that require strong professional ethics. With rising public health standards, there is a growing expectation for these therapists to exhibit high ethical awareness.

Objectives: This study aimed to develop a self-assessment tool to evaluate the ethical competence of Korean physical therapists, assess current ethical levels, and provide data for programs aimed at improving this competence.

Methods: An eight-step process for tool development and evaluation was implemented. Data were collected through an online survey of physical therapists. To ensure effectiveness, item analysis, exploratory factor analysis, and internal consistency reliability tests were conducted.

Results: The development process began with 70 items, which were refined to 48 through expert validation. An online survey with 219 physical therapists revealed five key factors explaining 65.4% of the variance, with factor loadings between 0.52 and 0.85. The internal consistency of the tool, measured by Cronbach's alpha, was 0.90, indicating acceptable reliability. The final assessment tool comprised 18 items.

Conclusion: This study successfully developed a validated self-assessment tool for measuring the ethical competence of physical therapists in Korea. The final 18-item tool, utilizing a 4 point Likert scale, is valid and reliable. It serves as a foundational resource for future research and educational initiatives aimed at improving ethical standards among Korean physical therapists.

Keywords: Ethics, Physical therapist, Korea, Work ethics, Ethical competence Self-assessment tool, Ethical competency.

© 2024 The Author(s). Published by Bentham Open.

This is an open access article distributed under the terms of the Creative Commons Attribution 4.0 International Public License (CC-BY 4.0), a copy of which is available at: <https://creativecommons.org/licenses/by/4.0/legalcode>. This license permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

*Address correspondence to this author at the Department of Physical Therapy, Eulji University, Gyeonggi-do, Republic of Korea; Tel/Fax: +82-31-740-7231/+82-31-740-7231; E-mail: ptkmc@eulji.ac.kr

Cite as: Cheon J, Kim M, Kim H, Kim H. Development of Ethical Competence Self-assessment Tool for Korean Physical Therapists. Open Public Health J, 2024; 17: e18749445348364. <http://dx.doi.org/10.2174/0118749445348364241101060839>



Received: August 01, 2024
Revised: September 26, 2024
Accepted: October 01, 2024
Published: December 02, 2024



Send Orders for Reprints to
reprints@benthamscience.net

1. INTRODUCTION

The 21st century is often referred to as the era of ethics, highlighting the significance of ethics as a fundamental value. The international community tends to pursue a society in which ethics and trust serve as infrastructure [1]. Ethics involves making decisions between good and evil, right and wrong, and depending on the context, it is sometimes used interchangeably with

morality. Professional ethics is the application of ethics to the context of one's profession, outlining the behavioral norms that professionals are expected to adhere to. Furthermore, professional ethics go beyond individual perspectives to reflect the socio-ethical nature of society's structures and systems [2].

Ethical conflicts arise in various environments as social structures evolve. Therefore, healthcare professionals who

deal with human lives and health should maintain a high level of professional ethics compared with other professions. Healthcare professionals not only care for patients but also provide them with humanistic attention. This humanistic attention signifies ethical care, enabling healthcare professionals to understand patients in a holistic manner [3]. Physical therapists fall under the category of healthcare professionals and play a crucial role as practitioners at the core of post-injury rehabilitation medicine [4]. With recent improvements in public health and advancements in medical technology, the role of physical therapists has evolved into a broad spectrum of care for various aspects of life [5]. Physical therapists have extended contact time with patients, leading them to frequently encounter various ethical conflicts, such as privacy and physical contact [6]. The Korean Physical Therapy Association has reported several lawsuits related to sexual harassment. As various ethical issues arise, physical therapists must establish appropriate values and the ability to resolve ethical dilemmas [5]. Therefore, enhancing the ethical competence of physical therapists is imperative. To enhance the ethical competence of physical therapists, ethical education and knowledge are recommended. Studies related to the ethics of physical therapy in Pakistan [7] and Austria [8] emphasize the importance of ethical competence.

Physical therapists often face ethical dilemmas, and as public health standards improve, a higher level of ethical awareness is increasingly demanded from them. Despite the emphasis on professional ethics, there is a lack of research specifically focused on the ethical challenges faced by physical therapists. Currently, there is no tool available to assess the ethical competence of Korean physical therapists, making it impossible to evaluate their ethical competence or measure the effectiveness of ethics education. Therefore, this study aims to develop a self-assessment tool that reflects the roles and scope of practice of physical therapists in Korea to evaluate their ethical competence. Additionally, the study seeks to verify the validity and reliability of the developed tool. Furthermore, the tool aims to provide foundational data for the creation of programs designed to enhance the ethical competence of Korean physical therapists.

2. METHODS

2.1. Research Design

This study was a methodological investigation aimed at developing and validating an Ethical Competence Self-Assessment Tool suitable for the job characteristics of physical therapy.

2.2. Research Process

This study followed the eight-step tool development and evaluation process proposed by DeVellis [9] (Fig. 1). The first step involved the identification of the components. We used the nursing ethics competency model proposed by Lechasseur *et al.* [10]. Subsequently, in-depth interviews were conducted with six physical

therapists to establish the subfactors of the evaluation tool. The second step was the initial item development. Items from previous studies by Kang *et al.* [11] and others were adapted to fit the scope of the physical therapists' practice. In addition, 70 initial items were drafted based on the existing literature. The third step was to determine the scale of the tool. We selected a Likert scale suitable for measuring opinions, attitudes, and beliefs. The fourth step involved testing expert content validity. A group of three-ten experts was deemed appropriate [6]. Thus, a panel of seven professors from the Department of Physical Therapy was formed to validate the content. Items with a Content Validity Index (CVI) of less than 0.78 were removed. The fifth step was a preliminary study. A preliminary study targeting 20 physical therapists was conducted to validate the face validity. The items were evaluated on a four-point scale for composition, length, comprehensibility, and so on, and an open-ended questionnaire was provided for the free expression of opinions. The sixth step was the administration of items to the development sample. Hinkin suggested that a sample size of over 200 is appropriate when conducting factor analysis [12]. Therefore, this study was conducted with 219 physical therapists working in hospitals and other institutions across South Korea. The seventh step involved evaluating the items. First, descriptive statistics were analyzed. Second, exploratory factor analysis was conducted to identify the possible factor structure of the survey items. During the exploratory factor analysis, a Kaiser-Meyer-Olkin (KMO) value above 0.50 and Bartlett's sphericity test p-value below 0.05 were interpreted as suitable for factor analysis [13]. Varimax rotation was conducted for principal component analysis, and factors with eigenvalues greater than 1.0 were extracted. Following factor analysis, items with commonalities below 0.40 or factor loadings below 0.50 were deleted.

Moreover, items with factor loadings above 0.40 in more than two factors were considered ambiguous and were also removed. Third, Cronbach's alpha was calculated for each factor to assess internal consistency reliability. Items with Cronbach's alpha values above 0.60 were retained in this study. IBM SPSS Statistics (version 29.0) was used for the descriptive statistics, exploratory factor analysis, and reliability testing. Finally, the tool was optimized, and the final items of the self-assessment tool for the ethical competency of physical therapists were confirmed. In this study, an online survey was conducted to determine the purpose of tool development. All surveys were administered only after explaining the study's objectives and obtaining consent from the participants.

3. RESULTS

As a result of the component identification stage, six factors and 14 sub-factors were derived. The six factors are as follows: ethical sensitivity, ethical knowledge, ethical reflection, ethical decision-making, ethical action, and ethical behavior. Based on the 14 sub-factors, 70 initial items were developed. The scale used in this study employed a Likert scale, which is commonly used in the

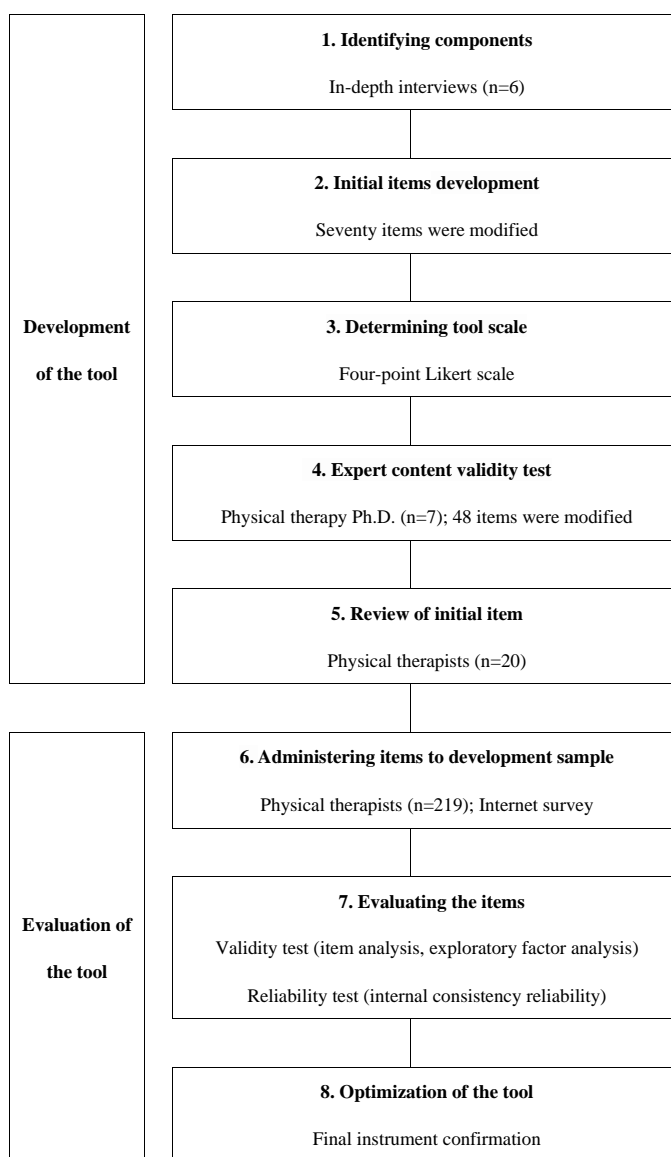


Fig. (1). Study framework.

social sciences. A four-point scale excluding neutral responses was chosen. Through content validity testing, 20 items with a CVI index of less than 0.78 and five duplicate items were deleted.

Furthermore, based on expert opinions, one item was integrated, and four items were modified or added. Ultimately, a total of 48 items were developed. In this study, a preliminary survey was conducted with 20 physical therapists to assess face validity. The developed items did not pose any difficulties. Subsequently, the main survey was conducted with 219 physical therapists, and 219 questionnaires were analyzed. The mean scores per item ranged from 2.28 ± 0.83 to 3.53 ± 0.54 , and eight items that did not meet the criteria were deleted. After two rounds of exploratory factor analysis, 20 items were

removed. The KMO value for the remaining 20 items in the third exploratory factor analysis was 0.89, with a p-value of < 0.05 . The analysis revealed five factors, with an explanatory power of 65.4%, communalities ranging from 0.53 to 0.82, and factor loadings ranging from 0.52 to 0.85. Through the third exploratory factor analysis, items with similar attributes were grouped into the same factors and selected based on their relatively high explanatory power (Table 1). Cronbach's α for the developed tool for reliability testing was 0.90. The reliability for each factor ranged from 0.68 to 0.87 (Table 2). When each item was deleted, one item with a higher Cronbach's α than the overall Cronbach's α and one item with a correlation coefficient between the item and a total score of less than 0.40 were removed, resulting in a final confirmation of 18 items (Table 3).

This study finalized a self-assessment tool for evaluating physical therapists' ethical competencies (Table 4). This tool consists of 18 items structured on a four-point Likert scale with the following specific contents: ethical reflection (five items), ethical behavior and attitudes (four items), ethical sensitivity (two items), ethical knowledge (three items), and ethical decision-making (four items). This tool has a maximum score of 72 points, with higher scores indicating higher levels of ethical competency.

4. DISCUSSION

This study aimed to develop a self-assessment tool for ethical competency among Korean physical therapists and assess its validity and reliability. The development of the self-assessment tool for ethical competency among physical therapists involved item development, reliability testing, and validity testing. As a result of the evaluation tool development process, five factors and 18 items were

derived.

The first factor, identified as ethical reflection, exhibited the highest explanatory power at 36.9%. Actions and attitudes towards ethical dilemmas emerge through ethical reflection [10]. Ethical reflection plays a pivotal role in connecting awareness of ethical situations with ethical behavior, which explains its highest explanatory power. According to Lee [14], ethical reflection is the process of thinking based on ethical values. Item 1 of this tool, "I treat with reference to the patient's requirements," showed the highest reliability. Physical therapists should encourage patient participation in treatment rather than providing treatment unilaterally. One aspect of a physical therapist's scope of practice is setting treatment goals. Considering patient preferences while setting treatment goals is expected to enhance the quality of treatment services provided to the patient.

Table 1. Final exploratory factor analysis results.

Item	Communalities	Factor1	Factor2	Factor3	Factor4	Factor5
21	.772	.803	.201	.152	.010	.137
18	.817	.757	.220	.045	.135	.220
24	.700	.744	.108	.140	.243	.254
22	.619	.706	.168	.177	.137	.266
19	.563	.633	.318	.118	.055	.118
47	.690	.054	.774	.034	.237	.180
45	.534	.342	.707	.180	.052	.107
46	.727	.238	.699	.027	-.100	.297
41	.647	.281	.659	.045	.248	-.027
2	.708	.072	.042	.852	.100	.272
1	.671	.138	.037	.825	.148	.222
3	.605	.269	.174	.728	.249	-.073
35	.634	-.082	.116	-.004	.717	.306
12	.638	.047	.019	.354	.681	.164
15	.628	.327	.072	.259	.611	.102
39	.557	.295	.259	.023	.601	-.202
29	.578	.300	.101	.102	.188	.698
31	.663	.313	.208	.167	.126	.673
28	.644	.277	.317	.305	.052	.576
27	.693	.220	.102	.254	.522	.524
Eigen		7.375	2.043	1.412	1.156	1.102
Variance		36.877	10.213	7.058	5.782	5.510
Cumulative Variance		36.877	47.090	54.147	59.929	65.440

Note: Kaiser-Meyer Olkin Measure of Sampling Adequacy= 0.891
Bartlett's Test of Sphericity. Chi-Square $X^2=1980.571(df=190, p<0.001)$.

Table 2. Reliability results for all items.

Factor	Number of Items	Cronbach's α of each Factor	Cronbach's α
Ethical reflection	5	0.87	0.90
Ethical action, behavior	4	0.78	
Ethical sensitivity	3	0.82	
Ethical knowledge	4	0.68	
Ethical decision making	4	0.79	

Table 3. Internal consistency reliability.

Factor	Item	CITC	AIID	Cronbach' s α
Ethical reflection	21	0.75	0.83	0.87
	18	0.71	0.84	
	24	0.72	0.84	
	22	0.69	0.84	
	19	0.60	0.86	
Ethical action, behavior	47	0.59	0.73	0.78
	45	0.62	0.71	
	46	0.58	0.73	
	41	0.56	0.74	
Ethical sensitivity	2	0.75	0.69	0.82
	1	0.73	0.70	
	3	0.57	0.86	
Ethical knowledge	35	0.46	0.62	0.68
	12	0.52	0.58	
	15	0.50	0.60	
	39	0.39	0.67	
Ethical decision making	29	0.62	0.73	0.79
	31	0.62	0.73	
	28	0.61	0.73	
	27	0.55	0.77	

Abbreviations: CITC=Corrected item-total correlation; AIID=Alpha if item deleted.

Table 4. Ethical Competence Self-Assessment Tool for Korean Physical Therapists.

Ethical Competence Self-Assessment Tool for Korean Physical Therapists				
Item	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
1 I treat with reference to the patient's requirements				
2 I form a genuine relationship with the patient during treatment				
3 I respect the roles and responsibilities of other professionals				
4 I assist patients in participating in decisions regarding their treatment				
5 I make an effort to understand the patient's emotions				
6 I do not accept undue benefits(cash, gifts, etc.)				
7 I do not disclose patient's personal information that I learned in the course of my duties (except in exceptional circumstances)				
8 I do not use an individual's authority or name for commercial advertisement				
9 I do not propose unfair or excessive treatments to patients				
10 I can recognize ethical issues as a physical therapist when faced with a dilemma				
11 I can determine whether or not the problem I face is an ethical problem				
12 I know the definition of harm				
13 I am aware of the ethical principles and rules necessary for recognizing and assessing ethical issues				
14 I perform treatments in compliance with theoretical and legal knowledge related to ethics				
15 I am able to make decisions based on my level of education and educational experience				
16 I can understand the rationale behind physical therapy and the appropriateness of treatment interventions well				
17 I can make decisions by applying evidence-based treatment				
18 I can make decisions based on professional ethics				

The second factor, ethical action and behavior, accounted for 10.2% of the explanatory power. Ethical action is considered the ethical standard expected of each professional, and the maintenance of ethical behavior based on ethical attitudes should be derived from all

elements, including moral factors. In this study, ethical actions and behaviors were initially defined as separate factors during the identification of the components. However, due to the factor analysis results revealing five factors in the instrument, ethical action and ethical

behavior were integrated into one factor, termed ethical action and behavior. This can be appropriately integrated as a single process based on maintaining ethical behavior grounded in ethical attitudes. The representative item for the second factor of ethical attitudes and behaviors in this study was "I do not accept undue benefits (cash, gifts, etc.)" and "If physical therapists receive undue benefits to the extent that is socially unacceptable, it can lead to ethical issues." Moreover, if undue benefits lead to negative perceptions among patients, the relationship between therapists and patients may deteriorate. Therefore, this item is considered appropriate as a representative of ethical behaviors and actions.

The third factor, termed ethical sensitivity, accounted for 7.1% of the explanatory power. Jo [15] mentioned that Korean nurses require high ethical sensitivity for ethical decision-making. Unlike in the past, physical therapists are now frequently confronted with ethical dilemmas. Therefore, the ability to recognize situations is essential for their resolution [16]. Hence, ethical sensitivity can be considered an appropriate factor for the ethical competency of physical therapists. Yun [17] stated that nurses' ethical behavior emerges when they recognize problems through ethical sensitivity. Among the items in Factor 3, "Recognizing problem situations as a physical therapist when faced with ethical issues" showed the highest factor loading. Recognizing problematic situations is crucial for making ethical decisions, such as in medical incidents or during work. Without recognizing ethical problems, it is quite difficult to proceed with the process of making choices and taking action. Recognizing a situation is the first step in making ethical decisions and taking action. Therefore, this item is considered representative of ethical sensitivity. The item representing Factor 3, ethical sensitivity, was "I can recognize ethical issues as a physical therapist when faced with a dilemma," which is crucial for making ethical decisions. Without recognizing ethical problems, proceeding with the process of making choices and taking action is impossible. Recognizing a situation is the first step in making ethical decisions and taking action. Therefore, this item is considered representative of ethical sensitivity.

The fourth factor, termed ethical knowledge, accounted for 5.8% of the explanatory power. Nurses have emphasized the importance of integrating technical skills with ethics to provide good nursing care [18]. As physical therapists provide care for patients, a virtuous, ethical approach is essential. Ethical and legal knowledge is necessary to resolve ethical issues and to protect therapists when problems arise. Ethical education, which has been increasingly emphasized recently, is the process of acquiring ethical knowledge, making it an appropriate factor in ethical competency for physical therapists. Beauchamp and Childress [19] emphasized the ethical principle of not causing harm to patients. In addition, both the Canadian and Singaporean Physiotherapy Associations emphasize not inflicting any harm in their codes of ethics for physical therapists. The item representing the ethical knowledge factor was "I know the definition of harm." In

this study, during in-depth interviews with physical therapists, "not inflicting any harm" emerged as a subfactor. Physical therapists are aware of its importance, making it a representative item of ethical knowledge considered significant by physical therapists worldwide.

The fifth factor, ethical decision-making, accounted for 5.5% of the explanatory power. Proper ethical decision-making by nurses has been shown to reduce patient recovery time. Improper ethical decision-making not only delays patient recovery but also compromises the quality of medical services [20]. If physical therapists resolve problematic situations through ethical decision-making, it may positively impact their confidence in ethical decision-making. This, in turn, would improve the quality of treatment services provided to patients. Therefore, ethical decision-making, which is essential in the ethical dilemmas faced by physical therapists, can be considered an appropriate factor for this tool. Kim [21] emphasized the need for training in ethical decision-making regarding the ethical dilemmas that can arise in clinical settings. Among the items representing the ethical decision-making factor in this study, the item identified as representative was "I am able to make decisions based on my level of education and educational experience." The importance of ethical education in enhancing the ethical competency of physical therapists is evident. Ethical education has been proposed as a method of enhancing ethical competency in most professions. As ethical education is conducted in universities and educational institutions, this item is considered appropriate as a representative item of ethical decision-making, a component of ethical competency.

This study has several limitations. First, the in-depth interviews were conducted with only six physical therapists, which limits the generalizability of the identified components of ethical competence to the broader population of Korean physical therapists. Second, the tool was validated with a relatively small sample of 219 physical therapists, further constraining the findings. Lastly, the external validity of the tool was not evaluated, representing an additional limitation. Therefore, future research should conduct a nationwide survey and assess the external validity of the tool. Additionally, it is necessary to develop a scale for the evaluation tool created in this study, enabling the assessment of the ethical competence of evaluators.

CONCLUSION

In contemporary society, the significance of ethics has increased, highlighting the necessity for ethical competence among healthcare professionals. Particularly, physical therapists, who spend considerable time with patients, face various ethical dilemmas; thus, the enhancement of their ethical competencies is essential. This study developed a self-assessment tool for evaluating ethical competency among physical therapists in Korea and confirmed its validity and reliability through validation processes. This tool is expected to be used as foundational material for future research related to physical therapy ethics. Moreover, future research should develop scales to

evaluate the ethical competency of physical therapists working in hospitals and other institutions nationwide with the aim of generalizing the findings. Furthermore, it is expected that this tool will be utilized as foundational data for programs aimed at enhancing ethical competence.

LIST OF ABBREVIATIONS

CVI	=	Content Validity Index
KMO	=	Kaiser-Meyer-Olkin

AUTHORS' CONTRIBUTIONS

H.K., J.C.: The Paper was written; M.K.: The methodology was proposed; H.K.: Data Analysis or interpretation was performed.

ETHICAL STATEMENT

This study was conducted as an individual research project without financial support, with all surveys administered in a non-face-to-face online format. At the time the study design was developed in 2022, the research ethics guidelines in South Korea did not mandate IRB approval for tool development studies. However, prior to conducting the online surveys, participants were informed of the research objectives, and only those who consented proceeded with the survey. We made efforts to protect the rights and interests of the participants.

CONSENT FOR PUBLICATION

Participants in the online survey proceeded with the survey after providing their consent.

AVAILABILITY OF DATA AND MATERIALS

The data and supportive information are available within the article.

FUNDING

None.

CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

ACKNOWLEDGEMENTS

The authors would like to express our gratitude to the physical therapists in South Korea who participated in the survey for the development of the ethical competence evaluation tool for Korean physical therapists. They would also like to extend their thanks to the professors in the Department of Physical Therapy in South Korea for their efforts in this research.

REFERENCES

- [1] Yang BM, Moon ST. The development and validation of the scales for teachers' vocational ethics. *Journal of Career Education Research* 2007; 20(4): 103-19.
<http://dx.doi.org/10.23840/agehrd.2007.39.4.143>

- [2] Kwon BG. *Understanding Medical Ethics for Health Care Professionals*. Seoul, Republic of Korea: Hakjisa Medical 2022.
- [3] Noemi MS, Laura FA, Sergio F, *et al*. Physical therapists' ethical and moral sensitivity: A STROBE-compliant cross-sectional study with a special focus on gender differences. *Health Care* 2023; 11: 333.
- [4] Lee SH. The influence upon job satisfaction by the appearance management seeking in physical therapists. Master's degree dissertation, Konkuk University Graduate School 2023.
- [5] Moon SR. Development of ethical questions type in the national physical therapy examination. PhD dissertation, Daejeon: Eulji University Graduate School 2021.
- [6] Lee SK. A Study on perceptions of vocational ethics and education among dental technicians. *Journal of Korean Academy of Dental Technology* 2020; 42(4): 372-8.
<http://dx.doi.org/10.14347/jtd.2020.42.4.372>
- [7] Khan HM, Javed A, Naeem M, Rehman SU, Tariq S. Professionalism among young physical therapists in Pakistan. *Journal of Bashir Institute of Health Sciences* 2023; 4(2): 153-62.
- [8] Sturm A, Roth R, Ager AL. Views of physiotherapists on factors that play a role in ethical decision-making: An international online survey study. *Arch Physiother* 2023; 13(1): 3.
<http://dx.doi.org/10.1186/s40945-022-00157-y> PMID: 36721251
- [9] DeVellis RF, Thorpe CT. *Scale Development: Theory and Applications*. (5th.), SAGE Publications: USA 2001.
- [10] Lechasseur K, Caux C, Dollé S, Legault A. Ethical competence: An integrative review. *Nurs Ethics* 2018; 25(6): 694-706.
<http://dx.doi.org/10.1177/0969733016667773> PMID: 27694548
- [11] Kang B, Oh H. Development of ethical nursing competence self-rating scale for clinical nurses. *Korean J Adult Nurs* 2020; 32(5): 482-93.
<http://dx.doi.org/10.7475/kjan.2020.32.5.482>
- [12] Hinkin TR. *A Brief Tutorial on the Development of Measures for Use in Survey Questionnaires*. New York: Cornell University School of Hotel Administration 1998.
<http://dx.doi.org/10.1177/109442819800100106>
- [13] Woo JP. *Structural Equation Model Misunderstandings and Prejudices*. Republic of Korea: Hannarae Academy 2014.
- [14] Lee YK, Jung MH. The effect of family resilience on depression and suicide ideation of the elderly. *Journal of Welfare for the Aged* 2013; 61(0): 111-34.
- [15] Jo HK. Moral sensitivity, empathy and ethical climate of nurses working in psychiatric wards. Master's degree dissertation, Yeonsei University Graduate School 2014.
<http://dx.doi.org/10.12934/jkpmhn.2017.26.2.204>
- [16] Moon SR, Beak SW, Kim MC. A Study on the ethical beliefs in the physical therapy. *Korean Allied Society of Health Care Ethics* 2022; 1(1): 9-18.
- [17] Yun J, Oh H. Validity and Reliability of the Korean Version of Nurses' Ethical Behaviors for Protecting Patient's Rights Scale: A Methodological Study. *Korean J Adult Nurs* 2023; 35(2): 138-47.
<http://dx.doi.org/10.7475/kjan.2023.35.2.138>
- [18] Vanlaere L, Gastmans C. Ethics in nursing education: learning to reflect on care practices. *Nurs Ethics* 2007; 14(6): 758-66.
<http://dx.doi.org/10.1177/0969733007082116> PMID: 17901186
- [19] Beauchamp TL, Childress JF. *Principles of Biomedical Ethics*. New York: Oxford University Press 2001.
- [20] Jamshidian F, Shahriari M, Aderyani MR. Effects of an ethical empowerment program on critical care nurses' ethical decision-making. *Nurs Ethics* 2019; 26(4): 1256-64.
<http://dx.doi.org/10.1177/0969733018759830> PMID: 29514574
- [21] Kim SB. Differences in ethical decision-making of clinical nurses based on nursing dilemma cases. Master's Thesis, Graduate School Of Information In Clinical Nursing: Republic of Korea 2020.