

ORIGINAL RESEARCH

Predictors of the Willingness to Promote Advance Care Planning among Nurses in Palliative Care Settings in Yogyakarta, Indonesia



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Article Info	Abstract
<p>Article History: Received: 28 July 2021 Revised: 04 December 2021 Accepted: 09 December 2021 Online: 27 December 2021</p> <p>Keywords: Advance care planning; end-of-life care; Indonesia; palliative care; palliative nursing</p> <p>Corresponding Author: Ike Wuri Winahyu Sari Faculty of Health, Universitas Jenderal Achmad Yani Yogyakarta, Indonesia Email: ike.wuri@yahoo.com</p>	<p>Background: While previous studies showed that oncology nurses were highly inclined to promote advance care planning (ACP), there is a limited study focusing on ACP that concerns the willingness to promote ACP among palliative nurses in Indonesia. This issue needs to be investigated to determine the causative factors so that interventions for nurses can be arranged to improve ACP in Indonesia.</p> <p>Purpose: This study aimed to identify predictors of the willingness to promote ACP among nurses in palliative care settings.</p> <p>Methods: This study used a descriptive-analytical design with a cross-sectional approach. A total of 150 registered nurses with at least one year of experience were purposively recruited. Data were collected using the Indonesian version of the willingness to promote ACP instrument (I-WPACP) with a possible score range of 24 to 120; the higher the score, the higher the willingness to promote ACP. The descriptive statistic, independent t-test, Pearson correlation test, Spearman rank correlation test, and multiple linear regression test were used to analyze the data.</p> <p>Results: The willingness to promote ACP showed a mean score of 84.73±9.36. The score indicates a high willingness to promote ACP. The experience of receiving palliative care education became a related factor as well as the most closely related factor to the willingness to promote ACP in the palliative care settings ($\beta=0.184$; $p=0.028$).</p> <p>Conclusion: The willingness to promote ACP among nurses is high and closely related to their experience of receiving education about palliative care. Education about palliative care and training on ACP needs to be developed so that nurses can discuss ACP with patients and family caregivers.</p>

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1. Introduction

In Indonesia, palliative care has been developing since 1992, with the Indonesian Ministry of Health launching a palliative care policy in 2007. Progress, on the other hand, has been slow and uneven across the country. Palliative care services are now only provided in a few major cities, where the majority of cancer treatment centers are located (Putranto et al., 2017). Palliative care has experienced a shift from its initial focus on patient's final stage of life to patients' onset early diagnosis (Connor & Bermendo, 2014). This approach aims to improve patient's and family's quality of life in facing a particular life-threatening illness through the prevention and discontinuation of suffering from earliest possible identification, conducting assessments, and optimal care to pain and other physical, psychological, social, and spiritual problems (Connor & Bermendo, 2014; World Health Organization [WHO], 2016). Palliative care is administered to patients with cardiovascular disease (38.5%), cancer (34%), chronic lung disease (10.3%), HIV/AIDS (5.7%), and diabetes (4.6%). Other medical conditions that require palliative nursing care are chronic kidney failure, chronic liver disease, rheumatoid arthritis, neurological disease, and dementia (Connor & Bermendo, 2014; Kelley & Meier, 2010). Attention is shifted to improving the quality of life rather than curing. "Good death" concept or died in good condition influenced patient's choices in maintaining their physical health status and decision making related to their end of life later (Dzeng et al., 2015).

In order to bridge palliative conditions, advance care planning (ACP) is considered as an appropriate approach to facilitate patients' health preference and end of life stage (Rietjens et al., 2017). ACP process is a communication procedure with patients, their loved ones, and health care

providers, in which they discuss the intended purpose and wish for care and treatment process (Rietjens et al., 2017). ACP can significantly increase the quality of life by focusing attention to hope at the end of life stage, reducing unwanted aggressive treatment (Robinson et al., 2012), and improving patient's and family's medical treatment satisfaction because it decreases anxiety and stress levels as well as depression from the family (Brinkman-Stoppelenburg et al., 2014; Institute of Medicine [IOM], 2015). ACP can also reduce the cost of health care (Yadav et al., 2017), reduce hospitalization rate, and lower unnecessary use of medical equipment and medicines (Dixon et al., 2015; O'Sullivan et al., 2016). However, in Indonesia, discussion about ACP is challenging. To discuss patients' health, preferred care, value and beliefs about patients' illness, expectations about treatment, and talking about death are still taboo. As a result, healthcare practitioners and caregivers in Indonesia must handle ACP especially about end-of-life topics with extreme sensitivity to avoid offending anyone (Silveira & Forman, 2012).

Nurses play a vital role in assessing patients' condition, initiator, information providers, educators, communicators, facilitators, advocators, and case managers in the ACP process (Ke et al., 2015). The willingness to promote ACP among nurses can be influenced by several factors such as knowledge about ACP, working experience, age, or education background (Tang et al., 2020). A study in China stated that nurses still have less than adequate knowledge of ACP. The result of the study showed that 60.1% of the total 293 nurses did not have exposure to education about palliative care, 89.1% did not have any experience in ACP training, and 72.7% did not have interest in the concept of ACP (Tang et al., 2020). Also, Izumi (2017) stated that 40% of nurses who had less knowledge on ACP reported that they had never or rarely been involved in ACP. Additionally, when they were involved, they were given obscure roles throughout the process.

Age and working experience were also linked with the willingness to promote ACP (Coffey et al., 2016). A study by Shepherd et al. (2018) and Hsieh et al. (2019) asserted that senior-aged nurses have more experience to participate in ACP. Senior-aged nurses who have long working experience possess better professionalism in managing patients, so they can be involved in the ACP process, discuss, and communicate with the patient confidently (Coffey et al., 2016; Hsieh et al., 2019; Shepherd et al., 2018). Senior nurses with a lot of experience are also better equipped to perform the termination of unnecessary medication at the patient's end-of-life stage in the palliative care setting (Coffey et al., 2016).

The previous study about willingness to promote ACP was conducted in China (Tang et al., 2020). The result showed that the oncology nurses were highly inclined to promote ACP, but limited by their knowledge about ACP. Studies focusing on ACP that are concerned with the willingness to promote ACP among palliative nurses in Indonesia are rarely conducted, especially in Yogyakarta. This matter needs to be investigated to determine the causative factors so that interventions for nurses can be properly arranged to improve ACP in Indonesia. These interventions can also be the following step to improve patients' and their family's quality of life. Accordingly, this study aimed to find out the predictors of the willingness to promote advance care planning among nurses in the palliative care settings.

2. Methods

2.1 Research design

This study was a descriptive-analytical study using a cross-sectional approach to determine the predictors of the willingness to promote advance care planning among nurses in the palliative care settings.

2.2 Setting and samples

This study was conducted among 150 nurses selected using a purposive sampling technique at two general hospitals in the Special Region of Yogyakarta, Indonesia. The calculation of the samples in this study was determined using a descriptive numerical axis with a 95% confidence level (Dahlan, 2016). The inclusion criteria were registered nurses in Indonesia with at least one year of experience of working in oncology care wards, palliative care units, or internal disease wards. Meanwhile, nurses who were off work or attending nursing training were excluded. Of the 150 distributed questionnaires, all respondents completed the questionnaire resulting 100% response rate.

2.3 Measurement and data collection

Because of the pandemic of the COVID-19 situation, all data were gathered utilizing Google Forms. Before data collection, orientation about the study was conducted to all respondents, including the purpose of the study, the risks and benefits, and the volunteerism in participation. The researchers personally conducted an orientation in each ward in the hospitals through head nurses. After that, the head nurses identified those nurses who met the inclusion and exclusion criteria and sent the Google form links. The nurses filled out the self-reported questionnaires, including the socio-demographic data, ACP knowledge, and willingness to promote ACP. The confidentiality of this study was guaranteed because the answers from the respondents through the Google form link were directly sent to the researcher's database. Data were collected on June 2021.

The self-reported questionnaires in this study consisted of three parts. First, there were the demographic characteristics, including age, gender, level of education, position title, and working experience. The second part was three questions to investigate the knowledge of ACP by Tang et al. (2020). The respondents were asked whether they had: (1) received palliative care education; (2) heard about ACP; and 3) received ACP training. The last part was the willingness to promote ACP (WPACP) instrument by Hsieh & Lin (2010). Permission to use the instruments was obtained from the original authors. The original version of WPACP was translated into Indonesian and renamed as the Indonesian version of WPACP (I-WPACP). The WPACP was translated using forward and back translation methods (Maneesriwongul & Dixon, 2004). Two translators translated the instruments from English into Indonesian language independently. The translation was reviewed by two bilingual nurses from Indonesia to fit the context and culture. The agreement resulted in the Indonesia version instruments that need to be back-translated. The back-translation process was done by a native English speaker. Furthermore, a discussion among the authors, native speaker, and Indonesian nurses was held to examine the similarities between the original and the back-translation versions. The result showed that the back-translation version was similar in meaning with the original one.

The next step was to do a construct validity on the 72 nurses. In this process, the nurses were recruited from the same hospital but were outside the research subjects. All the items in the I-WPACP instrument were confirmed to be valid and reliable, with Pearson-r values higher than 0.229 and a Cronbach's alpha coefficient of 0.743. I-WPACP consisted of 24 questions with five answer choices using a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Item 1, 2, 3, 4, 6, and 9 should be forward scores because they are favorable items, whereas the remaining items should be reversed scores as they are unfavorable items. The possible score ranged from 24 to 120. A higher total score indicates a higher willingness to promote ACP.

2.4 Data analysis

The data entry and analysis in this study was conducted using the Statistical Package for Social Sciences (SPSS) version 21 (IBM SPSS, Chicago, IL, USA). Respondents' characteristics, knowledge about ACP, and willingness to promote ACP were analyzed using descriptive statistics. The normality of the numerical data was analyzed using the descriptive normality test. Mean values and Standard Deviation (SD) were used when symmetrical. Median values and Inter-Quartile Ranges (IQR) were used when skewed. In the bivariate analyses, an independent t-test was performed to analyze significant differences in willingness to promote ACP according to the demographic characteristics, such as gender, level of education, and position title, and the ACP knowledge such as experience to receive palliative care education, experience to hear about ACP, and experience to receive training about ACP. The Pearson correlation test was used to correlate the willingness to promote ACP with ages, and the Spearman rank correlation test was used to correlate the willingness to promote ACP with working experience. A multiple linear regression test was conducted to analyze the associated factors correlated with the willingness to promote ACP, with a *p*-value less than 0.05 was considered statistically significant.

2.5 Ethical considerations

This study received ethical approval from the Medical and Health Research Ethics Committee of the Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada Yogyakarta (Reference number: KE/FK/0313/EC/2021) and the Research Ethics Committee of PKU Muhammadiyah Yogyakarta Hospital (Reference number: 00165/KT.7.4/VI/2021). Prior to data

collection, the researchers ensured that each respondent had signed an e-informed consent form. Each respondent also had the ability to withdraw from the study at any time without penalty. Data confidentiality was also ensured.

3. Results

3.1 Demographic characteristics of the respondents

The respondents' characteristics are shown in Table 1. There were 150 consenting nurses included in the final analysis. The mean age was 36.47 ± 9.36 , while the median of the working experience was 11.00 years. The majority of nurses were female (80%), had a diploma's degree education (63.3%), and worked as associate nurses (78.7%).

Table 1. Demographic characteristics of the respondents (n=150)

Characteristics	f (%)	Mean±SD	Median (IQR)
Age (years)	-	36.47±9.36	
Working experience (years)	-		11.0 (3.0-21.0)
Gender		-	-
Male	30 (20)		
Female	120 (80)		
Level of Education		-	-
Diploma's degree	95 (63.3)		
Bachelor's degree	7 (4.7)		
Ners	46 (30.7)		
Master's degree	2 (1.3)		
Position title		-	-
Head of nurse	11 (7.3)		
Primary nurse	21 (14.0)		
Associate nurse	118 (78.7)		

SD=Standard Deviation; IQR=Inter Quartile Range

3.2 The knowledge of ACP

The knowledge of ACP is summarized in Table 2. Among the surveyed nurses working in two general hospitals, 66% had received palliative care education, 69.3% had ever heard about ACP, and 78.7% had never received ACP training.

Table 2. Knowledge of the ACP (n=150)

Variable	f (%)
Experience to receive palliative care education	
No	51 (34)
Yes	99 (66)
Experience to hear about ACP	
No	46 (30.7)
Yes	104 (69.3)
Experience to receive training about ACP	
No	118 (78.7)
Yes	32 (21.3)

ACP= Advance Care Planning

3.3 The willingness to promote ACP among nurses

The willingness to promote ACP among nurses is shown in Table 3. The mean score was 84.73 ± 9.36 from possible score 24 to 120. That score indicates a high willingness to promote ACP among nurses.

Table 3. Willingness to promote ACP among nurses (n=150)

Variable	Possible score	Mean±SD
Willingness to promote ACP ^a	24-120	84.73±9.36

^aAssessed using Indonesian version of Willingness to Promote Advance Care Planning Instrument; A higher total score indicates a higher willingness to promote Advance Care Planning; ACP=Advance Care Planning; SD=Standard Deviation

3.4 Predictors of the willingness to promote ACP among nurses

The willingness to promote ACP based on demographic characteristics and knowledge about ACP is summarized in Table 4. Four variables became the candidates for multivariable analysis because they had a p -value less than 0.25 (Dahlan, 2014). They were age ($p=0.043$), working experience ($p=0.063$), level of education ($p=0.036$), and experience to receive palliative care education ($p=0.013$).

Table 4. Willingness to promote ACP based on demographic characteristics and knowledge about ACP (n=150)

Variable	Mean±SD ^a	Correlation coefficient (r) ^b	p -value
Age (years)	-	0.597	0.043*
Working experience (years)	-	-	0.063
Gender		-	0.854
Male	84.47±10.37		
Female	84.80±8.43		
Level of Education		-	0.036*
Diploma's degree	83.59±8.95		
Bachelor's degree, Ners, and Master's degree	86.71±9.43		
Position title		-	0.411
Head of nurse	81.73±12.36		
Primary nurse and associate nurse	84.97±8.49		
Experience to receive palliative care education		-	0.013*
No	82.08±9.78		
Yes	86.10±7.98		
Experience to hear about ACP		-	0.585
No	85.33±7.31		
Yes	84.47±9.42		
Experience to receive training about ACP		-	0.410
No	84.42±8.65		
Yes	85.88±9.43		

^aIndependent t-test; ^bPearson correlation or Spearman rank; * p -value <0.05 indicate statistically significant; SD=Standard Deviation; ACP=Advance Care Planning

Four candidate variables were analyzed together using a multiple linear regression test as shown in Table 5. The result showed that the experience of receiving palliative care education became a related factor as well as the most closely related factor to the willingness to promote advance care planning in the palliative care setting ($\beta=0.184$; $p=0.028$).

Table 5. Predictors of the willingness to promote ACP among nurses (n=150)

Variable	B	B	p -value	95% CI
Constant	75.517		<0.001**	66.288; 84.747
Age	-0.019	-0.020	0.865	-0.236; 0.199
Working experience	0.085	0.118	0.306	-0.079; 0.248
Level of Education	2.276	0.125	0.145	-0.793; 5.346
Experience to receive palliative care education	3.410	0.184	0.028*	0.371; 6.449

ACP=advance Care Planning; β =Standardized Coefficient; CI= Confident Interval; * p -value <0,05 indicate statistically significant; ** p -value <0,01 indicate statistically significant; Adjusted R Square=4.7%

4. Discussion

This study aimed to find out the predictors of the willingness to promote ACP among nurses in palliative care settings. The results indicated high willingness to promote ACP. In this study, the majority of respondents have had education on palliative care. This finding is in contrast with

a study by Tang et al. (2020) in China, which reported that the majority of nurses never received nursing education on palliative care. The majority of Indonesian nurses have received education on palliative care due to its inclusion in the nursing education curriculum, in which the topic of ACP is also covered. Nurses' knowledge of palliative care, especially about ACP, will influence their role and involvement in patients' end-of-life care (Coffey et al., 2016). In line with this research is a study by Coffey et al. (2016) which was conducted in five countries: Hong Kong, Ireland, Israel, Italy, and the United States, showing that nurses in the United States have better knowledge and experience on ACP than the other four countries. The high knowledge and experience of nurses in the United States resulted in a positive impact on the confidence and ease in the process of caring for patients in their final stage of life.

This study found that the majority of nurses have never had training on ACP. This result is in line with a study by Hsieh and Lin (2010) in Taiwan, which found that most nurses did not receive any training in communicating with patients about death and dying. Even though nurses receive education on palliative care and ACP, but when the skills in ACP are not further developed, it can cause disruption in the implementation of ACP in patients. The disruption can be in the form of a lack of communication skills concerning decisions in patients' end-of-life treatment (Montagnini et al., 2012). Also, nurses' lack of skills in ACP creates difficulty in caring for patients' daily care (Hsieh et al., 2019), and prevents them from participating in patients' ACP at their final stage of life (Izumi, 2017).

There is a need for comprehensive education and training in ACP for nurses in the palliative care system (Cohen & Nirenberg, 2011; Hsieh et al., 2019). The goal is to ensure that the nurses' knowledge can be utilized in ACP implementations. When that goal is achieved, it results in the appropriate communication process that can be well examined and support nurses in establishing discussion with patients and their families (Fan & Rhee, 2017; Shepherd et al., 2018; Tang et al., 2020). Training programs for skills on ACP, which are recommended for medical staff, can be in the form of audiovisual training using DVD, e-interactive simulation, workshop, and conventional training (Detering et al., 2014).

In this study, nurses' level of willingness to promote ACP in the palliative care setting is high. This result is also in line with a study on willingness to promote ACP conducted on health care providers, cancer patients, family caregivers, and the general population in South Korea (Park et al., 2019). Park et al.'s finding (2019) showed that among the four groups, the general population group had the lowest willingness. Meanwhile, the health care providers had the highest willingness to promote ACP. Nurses, as health care providers, who have a relatively close relationship with patients and family caregivers could be assumed as acquainted with their conditions and intention compared to other health care providers. With that closeness, ACP implementation is easier to achieve (Rietze et al., 2016). The low willingness to promote ACP is due to several factors: having different considerations when facing actual situations related to their illness, discomfort when thinking about terminal illness, and feeling uncertain whether their decision is appreciated at the due time (Park et al., 2019).

Factors that are related to the nurses' willingness to promote ACP in the palliative care setting in this research are the nurses' age, working experience, education level, and experience in receiving education on palliative care. However, when these four factors are linked to the willingness to develop ACP, the factor of experience in receiving education about palliative care is the strongest factor related to the nurses' willingness to promote ACP. It shares similarities and differences with a study by Tang et al. (2020), which was conducted on nurses in China and found that several factors determine nurses' willingness to perform ACP, including nurses with higher positions and have longer working experiences. Nurses who have heard about ACP, and those who have had an experience of training for ACP are also factors that are linked to their willingness to promote ACP (Tang et al., 2020). In Tang et al.'s study (2020), nurses who had received education on palliative care have a higher education background and have a higher nursing career level that allows them to get education on ACP. Nurses who have a higher position in their nursing career also have access to study and receive training on ACP.

This study found that the senior-aged nurses and the nurses who have long working experience possess higher willingness to promote ACP even though these two factors were not the strongest factors linked to the nurses' willingness to promote ACP. This result agrees with a study by Shepherd et al. (2018) among nurses in Australia and a study by Hsieh et al. (2019) in Taiwan. Both studies asserted that senior-aged nurses have more experience to participate in ACP. A study

by Coffey et al. (2016) that was carried out in five countries: Hong Kong, Ireland, Israel, Italia, and the United States, also showed similarity with this research. Senior-aged nurses who have long working experience possess better professionalism and confidence in managing patients' symptoms at their final stage of life and are better equipped to perform the termination of unnecessary medication at patient's end of life stage in the palliative care setting (Coffey et al., 2016).

This study also found that nurses who have higher education and have received education on palliative care possess a higher willingness to promote ACP. Among the two factors mentioned, receiving education on palliative care was the strongest factor linked to nurses' willingness to promote ACP. However, this finding differs from Tang et al.'s study (2020), which asserted that both factors were not linked to nurses' willingness to promote ACP in China. The assertion on the absence of correlation between the two factors and the nurses' willingness is due to nursing education curriculum differences in China that only lightly imposed subjects that are related to humanistic nursing, such as palliative care, but imposed more on clinical practice ability. Experience of getting an education on palliative care is the most closely related factor linked to nurses' willingness to promote ACP because of the nurses' perceptions and self-confidence in providing care. Nurses who adhered to the palliative concept, more precisely the ACP concept, were more confident and more at ease in communicating with patients when discussing ACP (Coffey et al., 2016). Education on palliative care, especially about ACP, needs to be given when nurses were still in both their undergraduate and postgraduate education (Shepherd et al., 2018), combined with ACP training when nurses were already assigned with their job in the clinic, especially in the palliative care setting. A previous study by A'la et al. (2018) asserted that there was a correlation between the experiences and student academic level and the students' attitudes in caring for dying patients. The experiences and academic level of the students play a major role in their views towards caring for dying patients. From this point of view, exposure during the education and developing it in the hospital system through training can help to strengthen consistent implementation of ACP (Gillan et al., 2014). In light of this phenomenon, it is appropriate to urge that undergraduate and postgraduate-levels include ACP education in all nursing study programs prior to legislation being enacted (Coffey et al., 2016). The education has to focus on the nurses' perception of palliative care aspects to assist patients and their families in understanding and participating in ACP. Also, the education is to facilitate decision making, symptom management, procedures for patients' comfort status, and psychological support (Chan et al., 2014).

5. Implications and limitations

ACP is a valuable process in which nurses are highly active and play a key role in the discussion. Approaching ACP with good education and training is an excellent opportunity to embed the process of ACP into practice. Given their critical role in assisting patients and acting as decision-makers, nurses require further training and assistance to ensure that they have a thorough understanding of ACP procedures, including how, when, and with whom wishes should be discussed and carried out. When establishing ACP education programs, take into account the higher levels of knowledge among older and more experienced nurses. Also, based on the result of this study, it is better to ensure that ACP education is accepted at the undergraduate and postgraduate levels in all nursing education programs in Indonesia. Also, training about ACP is needed to gain communication skills, so the nurses are confident to discuss with the patient and family in the clinical setting.

This study has two main limitations. First, this study was conducted in two general hospitals that did not specifically have a palliative care ward. There might be a different result on knowledge about ACP if the study takes place in the palliative ward. Second, this study only used a simplified questionnaire to measure the knowledge of ACP. However, this study has an appropriate sample size to capture the goal of this study.

6. Conclusion

This study concludes that the willingness to promote ACP among nurses is high and closely related to their experience of receiving education about palliative care. Education about palliative care, especially ACP, is vital to be given when nurses were still in their undergraduate or postgraduate education process. Aside from that, training about ACP needs to be developed

further to make nurses skilled in communicating and performing discussions about ACP with patients and family caregivers. Willingness to promote ACP, aside from being investigated on nurses, can also be explored further in patients and family caregivers. Thus, individuals who are involved in ACP can well discuss and communicate to achieve a better quality of life. Moreover, the I-WPACP measuring tool is very much recommended to be used in investigating nurses' willingness to promote ACP in the palliative care setting. The result of this measurement can be used as the foundation for ACP training for nurses in the palliative care setting.

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Author contribution

The authors IWWS and RWH, all contributed significantly to the study's conception and design. IWWS developed the study, participated in its design and coordination, gathered data, participated in the statistical analysis, and draft the manuscript. RWH participated in the design and coordination of the study and helped draft the manuscript. Furthermore, all authors give final approval of the final manuscript submitted in this journal.

Conflict of interest

There are none to declare.

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