

## ORIGINAL ARTICLE

## Nurses' Knowledge About Dementia Care: A Cross-sectional Survey

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## ABSTRACT

**Introduction:** Cases of dementia in the elderly continue to increase both globally and nationally. The consequences of dementia will affect memory, behavior, judgment, language, and personality. Therefore, special attention is needed on how to handle one of which is the knowledge of nurses, especially community nurses, on how to care for and treat dementia. Aims: To determine the knowledge of nurses about dementia care. **Methods:** This research was conducted on nurses at the Bandung City at Public Health Centre. The research design was cross-sectional, the total sampling was 34 nurses from Public Health Centre in Bandung, Indonesia. The instrument is a questionnaire in the form of questions about the causes of dementia, prevention and treatment of dementia, symptoms and diagnosis of dementia, and dementia care. Before the instrument is used, the validity and reliability tests are carried out. **Results:** This study found that nurses' knowledge of dementia was insufficient. Based on demographic data, the knowledge level of nurses is influenced by three thinks, namely: education (p-value = 0.01), exposure to information about dementia (p-value = 0.02); and experience in handling dementia cases (p-value = 0.01). **Conclusion:** So it can be concluded that nurses' knowledge about dementia is still lacking. Therefore, training and providing information about dementia are still needed to improve the skills of nurses in the field. This is influenced by education, exposure to information about dementia, and experience in dealing with dementia cases.

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## INTRODUCTION

Dementia is a neurodegenerative disorder with a global impact, with the largest proportion of cases occurring in low- and middle-income countries. It is estimated that there are 46.8 million cases globally with around 10 million new cases every year or new cases occurring every 3 seconds. This problem is on the rise and is expected to increase by 131.5 million by 2050 (1). Dementia in Indonesia continues to increase based on data from the Health Research and Development Agency, 2019 (2) Likewise in the city of Bandung, the number of patients who come to the public health centre is increasing with complaints of dementia. According to data from the Bandung City Health Office, in 2018 there were 3,839 cases of dementia spread across the Bandung city public health centers from 75 public health centres.

Dementia problems will affect memory, behavior, judgment, language, and personality (3). The increasing cases of dementia, especially in the elderly, need special attention to treat it (4). Knowledge of how to treat dementia is important for nurses (5), especially for community nurses. The results of the study (6) show that nurses' knowledge of dementia is still lacking. This is supported by research Evripidou, et al, 2019 (7).

Lack of knowledge of nurses on how to care properly, caring skills, communication techniques, individual management, and lack of confidence in dementia treatment. Likewise, there will be delays in diagnosis and difficulties in accessing health services by the provision of dementia services in the community, so that there will be potential for misdiagnosis, improper care management, bad psychological emergence that will affect coping and the ability of nurses to continue treatment (8). Good care will improve the quality of life of the elderly, therefore nurses must have good knowledge and skills to be able to meet the special needs of dementia patients (9). In Indonesia, it is estimated that

there are 1.2 million people with dementia in 2016, which will increase to 2 million in 2030 and 4 million in 2050.

Research on dementia caregivers has been carried out, but research on knowledge of nurses in the community but not community specialist nurses but only professional nurses who do not have formal knowledge in tertiary institutions about dementia care has not been carried out in Indonesia. Therefore This study aims to determine descriptive knowledge of nurses about dementia.

## **MATERIALS AND METHODS**

### **Subject**

The target group is nurses at the Bandung City Public Health Centre, Indonesia, totaling 34 people, with the sampling technique is total sampling. The sample criteria are nurses from public health centres nurses who have worked for more than 5 years and have received information about dementia, have experience caring for dementia patients, and have a minimum education diploma, are willing to be respondents during the study, which is 1 year. Exclusion criteria were nurses who had just worked under 5 years, nurses who had no experience caring for dementia and did not get information about dementia, were not willing to be respondents. Before carrying out data collection, ethical approval of human research institutions was obtained from the research and community service institute at the Universitas Pendidikan Indonesia. All information is made clear to understand the purpose of this study.

### **Research design**

This study had a cross-sectional design to survey the level of knowledge about dementia through a questionnaire.

### **Respondent and setting**

For ethical considerations, this research was conducted with the approval of the leaders of the community health centre, the Bandung City Health Office, and the Health Research and Development Centre (Puslitbangkes). After receiving permission from the Head of the Community health centre, the Health Officer, and the Research Centre for Research, explaining the objectives and research procedures to nurses. Agreeing nurses then filled out a consent form to confirm their willingness to participate in the study. The research instrument used was a questionnaire containing a statement.

Collecting data was in the form of 30 questionnaires. The instrument was prepared by the researcher, before the instrument was used, the researcher first tested the validity of the instrument. Validity test at 3 public health

centres, because they have the same characteristics. The validity test was carried out in March 2019 on 20 nurses. Questionnaires in the form of questions with right and wrong answers are given to respondents where respondents choose the answer option that is considered correct and the answer considered wrong, the answers are right and wrong by providing a correct checklist (√) then the answer is given a value of 1 (one) and incorrectly given a value of 0 with the time to answer each question is determined to be less than 5 minutes. The questionnaire consisted of eight on the causes of dementia, eight on the prevention and treatment of dementia, five on the symptoms and diagnosis of dementia, and nine on the provision of patient care. Categorical variables were presented as percentages.

The validity test was carried out on 20 nurses with  $r$  count >  $r$  table which was more than 0.444. Data were processed using SPSS with  $r$  count >  $r$  table. The instrument reliability test obtained a value of  $\alpha = 0.976$  so that it was concluded that the items were reliable and exceeded the Cronbach Alpha number 0.6.

### **Ethical Clearance**

This study was approved by Research Ethics Committee, Universitas Pendidikan Indonesia No. 080/1534/V-2019/BPKP.

### **Data Analysis**

Descriptive Statistics are used for the characteristics of the respondents, by calculating the percentage. Meanwhile, to assess the relationship between knowledge and characteristics of respondents using univariate chi-square analysis statistical test,  $P$ -value ( $<0.05$ ), which means that if  $<0.05$  there is a significant relationship between the two variables. Data analysis was performed using SPSS Statistics.

## **RESULTS**

### **Respondent characteristic**

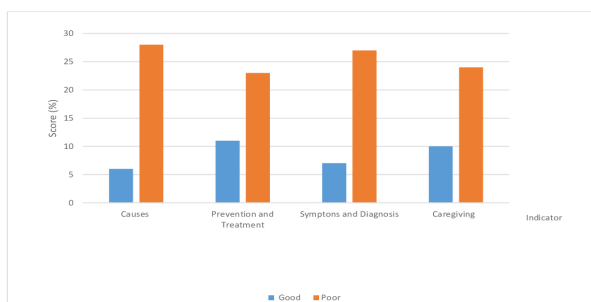
This research was conducted on 34 nurses in the city of Bandung. Based on table 1, the characteristics of respondents based on adult age are 25 people and 9 elderly people, have education nurses 34 people, female 24 people, and male 10 people, who have received information about dementia from seminars 25 people, social media 5 people, and the other 4 people such as from magazines and so on, respondents who have family members with dementia 2 people and do not have family members 32 people, all respondents do not get formal education about dementia. The characteristics of the respondents are shown in Table I.

**Table I: Characteristics of respondents**

Characteristics	F (n=34)	%
Age		
Adult	25	73.52
Elderly	9	26.47
Education		
Ners	34	100
Diploma	0	
Sex		
Female	24	70.58
Male	10	29.41
Exposure to Information on Dementia		
Training	-	0
Seminar	25	73.52
Social Media	5	14,72
Other	4	11.76
A family member with Dementia		
Yes	2	5.88
No	32	94,12
Experience of Dementia Education		
Yes	0	100
No	34	

### Nurses' knowledge about dementia care

The results about indicator knowledge dementia care of Nurses show in figure 1. The results of the study were nurses' knowledge about the causes of dementia 6 people who had good knowledge, knowledge about prevention and treatment 11 people who had good knowledge, knowledge of signs and symptoms 7 people who had good knowledge and knowledge of how to care dementia 10 people who have good knowledge.



**Figure 1: Score achievement nurses knowledge about dementia**

### Relationship between characteristics of nurses and their knowledge about dementia

The relationship between nurses' characteristics and knowledge is shown in Table 2. The relationship between knowledge and general characteristics has a significant relationship with ners education in dementia (p-value 0,01), then there is a relationship between knowledge and Exposure to Information on dementia (p-value 0.02), and the relationship between knowledge and Experience of Dementia Education (p-value 0,01).

**Table II: Nurses' knowledge about Dementia Care**

Characteristic	F (n=34)	P-value (0,05)
Age		
Adult	25	0,56
Elderly	9	
Education		
Profesional	34	0,01*
Non Profesional		
Sex		
Female	24	0,87
Male	10	
Exposure to Information on dementia		
Yes	30	0,02*
No	4	
The family member with Dementia		
Yes	2	0,21
No	32	
Experience of Dementia Education		0,01*
Yes	-	
No	34	

### DISCUSSION

This study aims to determine the level of knowledge of nurses about dementia at the Puskesmas (health centre) in Bandung, Indonesia, namely knowledge of the causes of dementia, knowledge of dementia prevention and treatment, knowledge of dementia signs, and symptoms, knowledge of dementia treatment. The results of this study found that nurses' knowledge about dementia needs to be improved, especially exposure to information about dementia and nursing experience in dealing with dementia cases. It can be seen that nurses need training on dementia care and information on dementia care to improve nurses' skills in the field. Nurse education in this study was by national and global standards that the minimum education for nurses in the community was a ners. Likewise with the age that nurses who have

mature and mature age who can deal with patients with dementia.

Knowledge-based indicators show that good knowledge on dementia prevention and treatment, dementia care, signs and symptoms, and causes where the nurse is also the general public (10)(11)(12) medical (13) must have good knowledge about dementia (14). based on research results Laurila J V (15) some hospital nurses at Hospital Cremona, Italy. have difficulty distinguishing between delirium and dementia and often misdiagnose dementia.

According to Scerri & Scerri, 2013 (9) surveyed 500 nursing practitioners in New York and found that more than half were less confident in their knowledge of the management of Alzheimer's disease, dementia, and delirium. Based on research results from Cowdell F (16) stated that the experience of caregivers and nurses in the hospital tends to be negative, which means that they still have low knowledge in caring for dementia patients. Good knowledge will be able to assist in the treatment process where nurses who have adequate knowledge and training will assist in the assessment and management of dementia care (17). The knowledge also aims to prevent misconceptions by nurses about medication in the use of antipsychotics in dementia patients (18). Dementia knowledge and education for health professionals in primary care have a positive effect on their knowledge, attitudes, treatment approaches, and care practices in dementia patients (19).

Health education about dementia will increase knowledge about the etiology, prevention, and treatment methods of dementia care (20). Providing suitable training will increase knowledge, confidence, awareness, and skills for nurses (21). However, some studies say that knowledge of the etiology, prevention, diagnosis, treatment, and life impact of dementia tends not to believe that dementia patients have a good quality of life (22). Education alone will not bring about sustainable changes in practice, therefore practice needs to be improved (16).

Nurses' knowledge is also influenced by respondent characteristics such as age and work experience where the increasing age and length of work, the better the knowledge of dementia care (15). However, in the results of this study, age has a negative correlation with knowledge, this is supported by research (5). Apart from age, educational factors also affect a person's knowledge where age, education, professional group, and care experience are associated with knowledge scores (6).

One of the nurses' knowledge about dementia care is about patient spirituality which is seen in daily care where patients approach themselves according to their beliefs and surrender (23). Likewise with nurse communication techniques where patients with dementia experience

communication difficulties in expressing physical and emotional needs so that nurses need to provide training to develop good communication techniques with dementia patients so that messages are conveyed properly (24). To be able to provide comprehensive nursing care without fear and worry about the patient's disease (10) also provides a sense of comfort for nurses when doing care if they have delivered knowledge (25). Nurses also need to communicate and provide knowledge to families, because good family support will motivate sufferers to undergo treatment (26) such as exercise for fitness for sufferers (27).

Dementia treatment is also given to dementia patients with disabilities where the patient must be the responsibility of the nurse in providing care (28). Good knowledge will increase the ability of nurses, especially nurses in the community, who specifically care for dementia patients to identify and determine a diagnosis based on the level of dementia (mild, moderate, and severe) using MMS (Mini-Mental State Examination) (29) (29). Good knowledge will give birth to good care to patients, thereby increasing patient satisfaction with the performance of nurses (30)(31). The role of government is very important informal education and providing information to nurses as well as improving nurse skills through training on dementia care for long-term care and will ultimately lead to the development of dementia care competence (30) and patient-centered care requires a government policy in its management (31). Therefore knowledge about dementia care is very important for nurses because good knowledge will increase the competence of nurses so that the quality of care for dementia increases (4).

## CONCLUSION

The results showed that the knowledge of dementia among nurses was poor this was influenced by the factor of work experience education and the provision of information about dementia health education and dementia care. Therefore formal education on dementia care is required. It is suggested for further research. To Analyzed Factor dementia care by nurses ( mental health effects, clinical implications, and strategic interventions).

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## LIMITATIONS

This study has limitations, namely the sample size is small, although the sample is small, it is representative of 3 public health centers in the city of Bandung, Indonesia.

This study only looked at the knowledge of nurses and did not look at the attitudes and skills of nurses. For future research knowledge, attitudes and skills of nurses can be researched.

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