

Educational Background and Continuing Education Program Affecting Mental Health Nurses' Literacy and Competence on Delivering Care at Primary Health Care in Indonesia

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ABSTRACT

Background and Objectives: Knowledge, competencies, stigma and readiness are crucial among mental health nurses especially primary health care setting. This study aims to determine the knowledge, competencies, stigma, and readiness among nurses to deliver mental health nursing care in primary health care.

Materials and Methods: The study used a cross-sectional study, it conducted from May to October 2022. The participants were mental health nurses who were working in primary health care in Makassar County and recruited using the total sampling method, whose 45 PMH nurses. Data collected using the Mental Health Knowledge Schedule (MAKS), the Psychiatric Mental Health Nurse Practitioner Competencies Self-Rating, and The Reported and Intended Behaviour Scale (RIBS) The cross-cultural adaptation approach is used in all tools for adaptation and translation. The data was analysed using univariate and bivariate tests such as the Chi-Square test with significant level is < 0.05 .

Results: There were 45 nurses who participated in this study, 93.3% were women, 68.9% have most bachelor's qualifications, 95.6% have good knowledge, 62.25 have competent levels, and 73.3% have positive stigma and readiness. Significant relationships were identified between nurse competence, educational background ($p = 0.014$), and participation in nursing or mental health training ($p = 0.020$).

Conclusion: The research findings show that most nurses have good knowledge, competence, stigma, and readiness to serve patients with mental health disorders. Recent education and participation in mental health training influence the competence of nurses in serving patients with mental disorders. Further study and a deeper understanding of each relevant factor's effect are urgently needed to enhance the treatment of mental illnesses and raise patient expectations in light of the numerous potential factors that may potentially influence nurses while caring for patients with mental health issues.

Paper Type: Research Article

Keywords: Competence, Indonesia, Mental Health Nurses, Primary Health Care, Stigma.

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Introduction

Mental health disorders had been increased during two last decades in Indonesia. According to Fundamental Health Research of Ministry of Health Republic of Indonesia reported that 6-7 people out of 1,000 people experienced mental disorders (1). The result also in line with the study result which conducted in South Sulawesi Province. The reported that the prevalence of People with mental disorder (PWMD) as much as 8.85 per mile (2). The majority of people who living with mental disorder are found in the community under authority of primary health care (PHC) settings.

The role of mental health nurse in delivering mental health services are crucial and essential. Further, the Ministry of Social Affairs of the Republic of Indonesia report only 1,235 out of 9,000 PHC which provide mental health services. Additionally, the shortage of mental health nurses in PHC setting also contributes to the goals achievement. In recent time, there are 6,500 mental nurses available in the PHCs setting. Its mean that each mental health nurses should cover 50.000 people (3).

As a populated city in eastern Indonesia, Makassar have 47 PHC which spread across all sub-districts (4). According to Health report of South Sulawesi Province in 2015, the number of PWMDs were significantly found in Makassar (5). Even though, the health report in 2016 showed the number of PWMDs visitors were significantly decreased from 8,856 to 6,090 (6). The valid number of PWMDs is still questionable. This could be affected by health care professional who carried out the mental health services not only by nurses but also midwives (7).

Most of the studies, such as conducted by Olofsson and Wickman in 2023 and Khalil in 2017 (8, 9). And related studies have provided an overview of the influence of knowledge and competence in serving patients with mental disorders. Further, the authors point out that lack of knowledge, resource and time hindered of nurses work among young adult with mental illnesses. Some of them, such as the study by Dalky and Ebrahimi also insert stigma as a variable in their research (10, 11). However, the approach to Primary Health Care (PHC) as a subject or place of study has not been identified until now, even though this is considered necessary considering that PHC is the starting point for providing health services for patients with mental health problems. Related research will provide an overview that supports the development of Community Mental Health Nursing (CMHN), mainly providing services at the first level for people with mental health problems.

These various problems sparked researchers to describe the relationship between the readiness and competence of mental health nurses on knowledge and stigma in serving patients with mental disorders in PHC throughout Makassar City. This condition has implications for nurses' knowledge level that affect the competence and professionalism of mental nurses in serving patients with mental disorders. This study aimed to identify the determinants of PMH nurses' literacy and competencies on delivering nursing care among the patients with mental health disorder in PHC setting.

Materials and Methods

Type of the Study

The research was carried out using a quantitative approach with a descriptive

cross-sectional study design in PHCs setting in the Makassar county, from May to October 2022.

Participants and Setting

The study was conducted in Makassar county in which there are 47 PHCs spread throughout the county. Due to the accessibility reason, there 2 PHCs were not included in this study, since both PHCs were located in small island and involving them through online also inaccessible. The study site were clustered based on location category, namely PHC in urban areas and PHC in sub-urban areas. Participants of this study were recruited from 45 PHCs by using total sampling method. There are some inclusion criteria applied such as nurses who have main role as mental health nurse, nurse who have work as mental health nurse for at least 6 months, nurses who have experience in delivering nursing care or treatment among mental health patient, and willingness to participate in this study.

Measurement Instrument

In this study, the measurement conducted in two main categories. Firstly, the measurement on socio-demographic data which include gender, working area, marital status, educational background, history in training and seminar about mental health, and working experience. Then, measurement in specific topic on literacy and knowledge, competences, and stigma and the readiness of mental health nurses. In order to measure the literacy and knowledge among nurses, the Mental Health Knowledge Schedule (MAKS) was used with a total of 12 question items (12). Further, Mental health nurse competency assessment used Psychiatric Mental Health Nurse Practitioners

Competencies Self Rating with 18 question items (13). Meanwhile, to assess the stigma and readiness of nurses in providing mental health services, The Reported and Intended Behavior Scale (RIBS) was used with a total of 8 question items (14). Before using the three instruments, the adaptation or translation process has been carried out first. Where the adaptation or translation process is carried out in two directions using Cross Cultural Adaptation with 6 steps, namely forward translation, synthesis, back translation, expert committee review, field testing, and finalization (15). The questionnaires used have been validity and reliability tested, boasts a Cronbach's Alfa value of 0.927.

Data Collection

At the beginning, testing the validity and reliability of the instruments were conducted which was carried out both face-to-face and online using google forms. Then, directly collecting data among participants in the nurses' workplace after appointment approved. Due to the COVID-19 pandemic, all researchers tightly followed the protocol. second stage of the study, researchers made direct visits to the PHC while still paying attention to the health protocols that were in effect during the Covid-19 pandemic. Researchers have reported to each head of the PHC to obtain data on the nurse in charge of the mental health program. The mental health nurse who meet criteria encouraged to participate in the study, signing the Informed Consent sheet as agreement to be participants.

Data Analysis

Data analysis was conducted to assess the validity, reliability, and internal consistency of the instruments used. Univariate analysis was

used to describe sociodemographic characteristics by assessing frequency, normality, mean, minimum-maximum value, standard deviation. Bivariate analysis was used to analyze the knowledge, competence, stigma, and readiness of mental health nurses with sociodemographic variables using the Chi-Square test with significant level is < 0.05 using SPSS software.

Ethical Consideration

The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Health Research Ethics Commission (KEPK) of Faculty of Public Health at Universitas Hasanuddin, Indonesia.

Results

There are 45 mental health nurses involved in this study. According to age of participants, the mean and standard deviation was 42.24 ± 1.119 , and age range from 29 to 56 years old. Predominantly participants were female nurses (93.3%), working in PHC which located in urban areas (53.3%), were married (93.3%), have bachelor degree (68.9%), have attended the mental health training (60%), have attended in the mental health seminars (73.3%), have working experience as a mental health nurse for around 1-5 years (44.4%). The detail participant's characteristic shows in the table 1.

Table 1 shows that mostly mental health nurses serving patients with mental health disorders in PHC throughout Makassar City have good knowledge of 95.6. In contrast, nurses who are competent in serving patients with mental health disorders are 62.2%. In addition, this study shows that stigma and readiness in serving patients with mental health disorders is 73.3%.

Table 2 shows that all (100%) male respondents know well about serving patients with mental health disorders. Most nurses who work in urban and sub-urban health centers have good knowledge of 95.5%, in addition, the majority of married nurses have good knowledge (95.2%), and all respondents who have a vocational level, Specialist or who have master qualification have good knowledge. According to statistic test by using Chi-square test shows that all variables have no effects on knowledge among mental health nurses who working at primary health care.

Table 3 shows that all respondents who have specialist and master qualification have expert competence (100%). Most respondents who have attended mental health training are competent nurses (46.7%), while nurses who have attended seminars are 48.9%. Most nurses who have worked for >5 years are competent nurses (28.9%). As many as 53.3% of respondents who have experience in the mental health field are competent, and nurses with a length of work > 1 year. Further, all respondents who have master qualification have positive stigma and readiness to deal with patients with mental disorders (100%). Most of the respondents who have attended mental health training have positive stigma and readiness (74.1%), while those who have attended seminars are 78.8%. 71.8% of respondents have experience in the mental health sector and have positive stigma and readiness with >5 years of work (83.3%). The majority of nurses who have worked for >5 years are nurses who have positive stigma and readiness (88.2%).

Table 1. Characteristics of Mental Health Nurses

Respondent Characteristic		f	%
Gender	Male	3	6.7
	Female	42	93.3
Primary Health Care Location	Urban	24	53.3
	Sub-urban	21	46.7
Marital Status	Married	42	93.3
	Divorced	3	6.7
Educational Background	Vocational	12	26.7
	Bachelor	31	68.9
	Specialist	1	2.2
	Master	1	2.2
Participation in nursing / mental health training	No (Never)	18	40.0
	Yes	27	60.0
Participation in nursing / mental health seminars	No (Never)	12	26.7
	Yes	33	73.3
Length of work in mental health/psychiatric nursing	< 1 year	8	17.8
	1-5 year	20	44.4
	> 5 year	17	37.8
Previous experience working in mental/psychiatric health	Yes	39	86.7
	No	6	13.3
Length of time as a nurse while working in mental health	< 1year	8	17.8
	1-5 year	19	42.2
	> 5 year	18	40.0
Knowledge of mental health nurses	Good	43	95.6
	Lack	2	4.4
Competency of mental health nurses	Expert	6	13.3
	Competent	28	62.2
	Novice	11	24.4
Stigma and readiness of mental health nurses	Positive	33	73.3
	Negative	12	26.7

Table 2. The respondent characteristics and nurses' knowledge

Respondent's Characteristic		Knowledge		p-value
		Good (f/ %)	Lack (f/ %)	
Gender	Male	3/6.7	0/0	0.699 *
	Female	40/88.9	2/4.4	
PHC Location	Urban	23/51.1	1/2.2	0.923 *
	Sub-urban	20/44.4	1/2.2	
Marital Status	Married	40/88.9	2/4.4	0.699 *
	Divorced	3/6.6	0/0	
Educational Background	Vocational	12/26.7	0/0	0.814 *
	Bachelor	29/64.4	2/4.4	
	Specialist	1/2.2	0/0	
	Master	1/2.2	0/0	

*Chi-Square Test, f = frequencies

Table 3. The characteristics of respondents and competence, and stigma and readiness in delivering mental health nursing care

Respondent Characteristics	Nurse's Competency			p-value	Stigma and Readiness		p-value
	Expert (f/%)	Competent (f/%)	Novice (f/%)		Positive (f/%)	Negative (f/%)	
Educational Background							
Vocational	1/2.2	6/13.3	5/11.1	0.014*	10/22.2	2/4.4	0.282
Bachelor	3/6.6	22/48.9	6/13.3		22/48.9	9/20	
Specialist	1/2.2	0/0	0/0		0/0	1/2.2	
Master	1/2.2	0/0	0/0		1/2.2	0/0	
Participation in mental health training							
No (Never)	3/6.6	7/15.5	8/17.7	0.020*	13/28.9	7/15.5	0.891
Yes	3/6.6	21/46.7	3/6.6		20/44.4	21/24.7	
Participation in mental health seminars							
No (Never)	1/2.2	6/13.3	5/11.1	0.261	7/15.5	5/11.1	0.170
Yes	5/11.1	22/48.9	6/13.3		26/57.8	7/15.5	
Length of work in mental health/psychiatric nursing							
< 1 year	1/2.2	5/11.1	2/4.4	0.534	6/13.3	2/4.4	0.153
1-5 year	3/6.6	10/22.2	7/15.5		12/26.7	8/17.7	
> 5 year	2/4.4	13/28.9	2/4.4		15/33.3	2/4.4	
Previous experience working in mental/psychiatric health							
Yes	4/8.8	24/53.3	11/24.4	0.150	28/62.2	11/24.4	0.552
No	2/4.4	4/8.8	0/0		5/11.1	1/2.2	
Length of time as a nurse while working in mental health							
< 1 year	1/2.2	4/8.8	3/6.6	0.697	6/13.3	2/4.4	0.380
1-5 year	2/4.4	14/31.1	3/6.6		12/26.7	7/15.5	
> 5 year	3/6.6	10/22.2	5/6.6		15/33.3	3/6.6	

*Chi-Square Test, f = frequencies

According to statistics test analyses by using Chi-square test shows that only both educational background, and history in participation in mental health training variables have significant effects on mental health nurses' knowledge (p-values = 0.014 and 0.020, respectively), while for stigma and readiness have no variable which statistically significant.

Discussion

Identifying mental health nurses who work in PHCs especially in Indonesian context is limited. This study explores the knowledge, competence, and stigma and readiness of mental health nurses in delivering services

among patients with mental health problems in the PHC setting. Preliminary findings in this study indicate that all PHC nurses have a good level of knowledge, competence, stigma and readiness. This is similar to the findings of Syarifah which investigates nurses' experience in treating people with mental health conditions in the same service setting (16). However, there are some unexpected findings regarding the overall relationship of the variables in this study.

Overall, statistically characteristic variables did not significantly correlate to nurses' knowledge in serving patients with mental disorders. This is not in line with several

similar recent studies, such as the research conducted by Nugroho which identified a significant relationship between knowledge and variables of age, education, and gender in implementing Community Mental Health Nursing (CMHN) (17). In this study, several characteristic variables used include gender, area of the PHC, marital status, and the last education of nurses. Most of the findings related to the unrelated knowledge and characteristics of nurses in this study were also found by Szajna on nurses working in Tertiary Health Facilities in South India (18); in her study, Szajna only found a significant relationship between knowledge and recent education of nurses who also different from the findings in this study.

Determinant factors such as culture, socio-economics, place of residence, age, and other factors including politics and stakeholders are considered to have implications for the findings in this study (19, 20, 21). Some of these factors may also affect nurses' knowledge in serving patients with mental health problems in every health service setting, especially in PHC setting. Knowledge in its application can be reflected in a nurse's competence; good competence supports the success of achieving the outcomes of nursing care provided to clients. Further, Lien and colleagues reported that increasing the mental health awareness among HCPs as affect of a global campaign and health organization role in tackling the problem (20). This study has shown a significant relationship between the competence of nurses with the latest education and the participation of nurses in nursing / mental health training. This is in line with the study conducted by Elysabeth which found a

significant relationship between the level of education and the competence of nurses (22). Then, Horevitz & Manoles research in the US confirmed the relationship between competence and participation in training which is also in line with the results of this study (23). In addition to these two findings, several variables were tested in this study: participation in nursing seminars, length of work, and work experience in mental health. However, none of these variables had a significant relationship with nurse competence. The study at the Open University of Malaysia reflects the findings of this study, and the study shows that even nurses with more than ten years of work experience do not necessarily reflect their competencies. The finding is that 12% of nurses with these qualifications fail the Objective Structured Clinical Skills Examination (OSCE) was conducted to measure their competence (24). Recent research has assessed that a nurse's lack of competence and knowledge can trigger stigma and discriminatory behaviour towards patients with mental disorders (25).

This study found no significant relationship between all characteristic variables with stigma and nurses' readiness to serve patients with mental health disorders. This is in contrast to several recent studies which have identified a significant relationship between stigma and nurse readiness with recent education, participation in mental health training and seminars, and length of service as a mental nurse (26, 27). Further, some interventions were identified have significant effect upon stigma such as contact intervention and educational intervention including family psychoeducation program

(28). In addition, the opposite was also identified in this study, which statistically did not show the relationship between competence with stigma and nurse readiness. This finding is suspected because there are still many factors that can affect the stigma and readiness of nurses to serve patients with mental disorders, some of which are caused by organizational factors, namely workload and resource/environmental support, and do not rule out nurses' factors such as age, gender, ethnicity, religion, even marital status also plays an important role (28, 29). All of the determinants of these factors may have a significant relationship and influence on mental health nurses in serving patients with mental disorders. Another limitation of this study was the sample size and study location.

Conclusion

The findings in this study indicate that educational background and participation in continuing education program have significant relation to mental health nurses' literacy and competencies. Recent education and participation in mental health training influence the competence of nurses in serving patients with mental disorders. Concerning the many possible factors that are considered to affect nurses' literacy and competencies further research with large number of sample size is needed in order to increase the evidence level.

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Availability of data and materials: The anonymized datasets used and/or analysed during the current study are available from

the corresponding author on reasonable request

Conflicts of interests: We declare that there is no conflict of interest.

Consent for publication: Not applicable

Ethical approval and consent to participate: The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Health Research Ethics Commission (KEPK) of Faculty of Public Health Hasanuddin University under approval letter number No: 9058/UN4.14.1/TP.01.02/2022. Informed Consent was conducted online via google form by all nurses as participants in this research.

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