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## International Journal of Nursing Sciences

journal homepage: <http://www.elsevier.com/journals/international-journal-of-nursing-sciences/2352-0132>

## Original Article

## Investigation of attitudes toward mental illness among nursing students in Indonesia

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## ARTICLE INFO

## Article history:

Received 9 November 2017

Received in revised form

1 August 2018

Accepted 14 September 2018

Available online 19 September 2018

## Keywords:

Attitude

Knowledge

Psychotic disorders

Students

Nursing

## ABSTRACT

**Objective:** People with mental illness (PMI) are often stigmatized or experience negative attitudes from society. In particular, nursing students' attitudes toward PMI will influence the quality of care these patients receive. Some factors influencing attitudes toward PMI among nursing students have been identified. The present study aimed to examine factors influencing attitudes toward mental illness among nursing students in Indonesia.

**Methods:** Nursing students ( $n = 317$ ) were assessed for attitudes toward mental illness using the Community Attitude toward the Mentally Ill questionnaire. Details regarding sociodemographic variables (age, gender, ethnicity, year of study, monthly family income, personal experience with mental illness, family history of mental illness, and knowing or having direct contact with PMI) and knowledge about mental illness by using Mental Health Knowledge Schedule questionnaire were also obtained.

**Results:** The mean Community Attitude toward the Mentally Ill questionnaire score was  $103.75 \pm 9.15$ , with the highest mean of the four subscales being that of authoritarianism  $27.97 \pm 2.87$  followed by social restrictiveness, community mental health ideology, and benevolence  $27.52 \pm 3.68$ ,  $24.38 \pm 3.80$ , and  $23.89 \pm 3.27$ , respectively. The factors significantly associated with nursing students' attitudes toward mental illness were age ( $r = -0.18$ ,  $P = 0.001$ ), year of study ( $H = 16.65$ ,  $P < 0.001$ ), knowing or having direct contact with PMI ( $Z = -2.35$ ,  $P = 0.019$ ), and knowledge of mental illness ( $r = -0.22$ ,  $P < 0.001$ ).

**Conclusions:** Several demographic variables, direct contact with PMI, and level of knowledge about mental illness can contribute to variations in attitudes toward PMI among nursing students in Indonesia. Education and direct contact with PMI serve as intervention strategies to reduce negative attitudes and stigma associated with mental illness among nursing students.

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## 1. Introduction

Mental illness is a serious problem in many countries around the world [1], with the most common mental illnesses being depression and anxiety [2]. The Indonesian Health Ministry (2013) reported the prevalence of mental illnesses, such as schizophrenia, is approximately 1%, and emotional disorders affect approximately 6% of the total population [3]. Mental illness is a maladaptive response to stressors from the internal or external environment, manifested by thoughts, feelings, and behavioral disturbances [4]. Consequently, people with mental illness (PMI) are often seen to be aggressive, dangerous, violent, unpredictable in their behavior,

unable to handle too much responsibility, and more likely to commit offenses or crimes. These perceptions understandably cause fear and social distance [5–8]. According to a survey of mentally healthy people from 21 countries, as many as 7–8% of respondents in developed countries and 15–16% in developing countries believe that PMI are more violent than the average person [9]. Moreover, approximately 90% of PMI admitted to experiencing stigma, and 86% of PMI had experienced discrimination [10]. That study showed that PMI experienced stigma or suffered negative attitudes from society [11].

Stigma has several impacts on PMI. It gives rise to negative psychological outcomes [5,12–14], such as withdrawal behavior [15], increases the levels of depressive symptoms [11,13–16], lowers self-esteem [13–15,17–19], and reduces the self-efficacy of PMI [12–14]. Furthermore, stigma leads to higher somatic complaints [16], a decrease in quality of life [15,16,19–21], delays in treatment seeking and continuation, worse treatment outcomes,

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Peer review under responsibility of Chinese Nursing Association.

and lower psychological resilience [8,22–24]. Therefore, PMI find it difficult to recover and often relapse [25]. In addition, stigmatized individuals showed lower levels of social functioning [12] and experienced discrimination when searching for housing and employment opportunities, loss of income, frequent isolation, inadequate social lives, and incestuous family relationships [11,19]; they also felt desperate [26], worthless, and fearful of rejection [27].

The stigma of mental illness also has implications for psychiatric nursing, especially for nursing students. Nursing students provide nursing care to PMI, and their attitudes toward PMI become the main determinants of the quality and outcomes of care that these patients receive [28]. Hence, psychiatric nursing is not the preferred career option for most nursing students [5,6,18,29–36]. Nursing students, in general, display varied attitudes toward mental illness. One study showed that a total of 148 undergraduate nursing students at Bangalore University (Bengaluru, India) had a significantly positive attitude in the domains of restrictiveness, benevolence, and stigmatization but displayed highly negative attitudes in separatism, stereotypes, and pessimistic prediction domains [37]. Other studies have also revealed negative attitudes toward mental illness among nursing students [6,36,38]. These findings provide evidence that nursing students stigmatize and fear PMI, lack understanding of PMI in their environment, and do not want to interact with them. Furthermore, most nursing students also have little interest in being mental health workers in their future careers [35].

Some studies have examined the factors influencing attitudes toward mental illness among nursing students and report that age, gender, ethnicity [29], level of education, and family income [29,39] correlated with attitudes toward mental illness [40], while age, gender, level of education [41,42], and family income [37,38] did not. Other research regarding factors associated with nursing students' attitudes toward PMI are contradictory. While experiencing a mental illness, a family history of mental illness, knowing or having direct contact with PMI, and knowledge of mental illness [11,33,35,36,42–47] have been related to attitudes toward mental illness in some studies, others reported that having experienced a mental illness, having a family history of mental illness, or knowing or having direct contact with PMI had no significant relationship with attitudes toward mental illness [44]. In addition, some studies have found that having experienced a mental illness did not correlate with nursing students' attitudes toward mental illness [41,42]. Unfortunately, the causes of these different attitudes are unclear, and there are no studies about the factors influencing attitudes toward mental illness among nursing students in Indonesia. Therefore, the present study examined factors influencing attitudes toward mental illness among nursing students in Indonesia.

## 2. Methods

### 2.1. Study design and participants

This study had a correlational design with a cross-sectional approach and was conducted at one state university in Indonesia. Participants were recruited through purposive sampling. Selection criteria were nursing students in their first, second, or fourth year of study who were willing to participate. A total of 348 respondents were invited to participate. During the investigation, 31 respondents were excluded and 317 respondents returned questionnaires. The study received approval from the Research Ethics Committee of the Faculty of Medicine at Diponegoro University in Semarang, Indonesia (157/EC/FK-RSDK/IV/2017). The objectives, procedures, potential risks and benefits, protection of confidentiality, and right to withdraw during the study were explained to participants. Participants were assured of confidentiality and

anonymity. In addition, all participants provided written consent to participate.

### 2.2. Data collection

The data were collected from April to May 2017 using a socio-demographic, Community Attitude toward the Mentally Ill (CAMI), and Mental Health Knowledge Schedule (MAKS) questionnaires. If a questionnaire was missing items, respondents were asked to complete those items when feasible. Of the 348 respondents, 317 completed the questionnaire, yielding a completion rate of 91.09%. The sociodemographic questionnaire collected background information, such as age, gender, ethnicity, year of study, monthly family income, personal experience with mental illness (meaning they have/have had a mental illness), family history of mental illness, and knowing or having direct contact with PMI.

The CAMI questionnaire was developed by Taylor & Dear and was got permission from the author to use in this study [39]. Additional questions were also devised to elicit informants' experiences with mental illness and discrimination. The CAMI scale rates a total of 40 items on a 5-point Likert scale (1 = strongly agree, 5 = strongly disagree) and has four subscales (authoritarianism, benevolence, social restrictiveness, and community mental health ideology), each with 10 items. Overall stigma against PMI was computed by summing the scores across all subscales. Negatively-stated items were reverse-coded for analysis. Higher numerical scores indicated greater stigma against PMI; a total CAMI score greater than the mean meant an overall negative attitude, and vice versa. The internal consistency of the CAMI was assessed by using Cronbach's  $\alpha$ , which was 0.813.

The MAKS questionnaire, developed by Evans-lacko et al., was administered to assess stigma-related mental health knowledge and got permission from Graham Thornicroft [43]. MAKS items are scored on an ordinal scale (1 = strong disagreement, 5 = strong agreement); "don't know" was coded as a neutral response and given a score of 3. Items 6, 8, and 12 were reverse-coded to reflect the direction of the correct response. Part A was comprised of six items (1–6), covering stigma-related mental health knowledge areas (help-seeking, recognition, support, employment, treatment, and recovery) and is used to determine the total score. Part B consisted of six items (7–12) inquiring about the classification of various conditions as mental illnesses. Total scores were calculated so that higher numerical scores indicated greater knowledge; a total MAKS score greater than the mean indicated good knowledge, and vice versa. The overall internal consistency among items (Cronbach's  $\alpha$ ) was 0.763.

### 2.3. Statistical analysis

Sociodemographic characteristics and knowledge about mental illness of respondents were analyzed and described using frequency, percentage, and means  $\pm$  standard deviations. The Spearman's rho, Wilcoxon, and Kruskal-Wallis statistical tests were applied to examine the correlation between attitudes toward mental illness and sociodemographic characteristics and knowledge about mental illness.

## 3. Results

The final sample consisted of 317 respondents whose ages ranged from 18 to 21 years ( $19.80 \pm 1.40$ ). The majority of students were female (90.9%), of Javanese ethnicity (88.8%), in their second year of study (34.4%), had a monthly family income greater than IDR1,909,000.00 (60.6%, 1 IDR=0.000066 US\$), have never experienced mental illness (97.5%), have no family history of mental

illness (93.7%), and knew or had direct contact with PMI (69.4%) (Table 1). Mean total scores for the MAKS and CAMI questionnaires were  $20.55 \pm 2.07$  and  $103.75 \pm 9.15$ , respectively. In addition, the mean total score for the CAMI subscales of authoritarianism, benevolence, social restrictiveness, and community mental health ideology were  $27.97 \pm 2.87$ ,  $23.89 \pm 3.27$ ,  $27.52 \pm 3.68$ , and  $24.38 \pm 3.80$ , respectively.

The factors significantly associated with nursing students' attitudes toward mental illness were age ( $r = -0.18$ ,  $P = 0.001$ ), year of study, knowing or having direct contact with PMI, and knowledge about mental illness ( $r = -0.22$ ,  $P < 0.001$ ). On the other hand, gender, ethnicity, monthly family income, having experienced a mental illness, and family history of mental illness were not correlated with attitudes toward mental illness in Indonesian nursing students (Table 1).

#### 4. Discussion

The present study showed that student age correlated with attitudes toward mental illness ( $r = -0.18$ ,  $P = 0.001$ ) among nursing students in Indonesia. These findings were similar to those of previous studies. Numerous studies have shown that older people are more likely to have positive attitudes toward mental illness [38,39,48–50], while others have reported that older people had more negative attitudes than younger ones [29,35,40]. However, one study found that as age increased, total authoritarianism and social restrictiveness decreased. Nonetheless, older age is still likely to be a significant factor in reducing negative attitudes toward PMI [38] because older age is associated with maturity of thought and behavior [50].

The current findings also indicate that year of study is related to attitudes toward mental illness among Indonesian nursing students. Year of study is related to education level, a demographic factor that has been previously related to attitudes toward mental illness [6,11,29,37–40,51–53]. Year of study also determines if students have already been exposed to psychiatric nursing [54]. In the first year, nursing students in Indonesia are not typically exposed to psychiatric nursing in theory or practice, whereas

second year students are exposed to the theory. Nursing students in their fourth year have been exposed to both the theory of psychiatric nursing and practice in the care of PMI.

Current and previous studies have revealed that nursing students who have studied the theory of and have had clinical experience in psychiatric nursing have positive attitudes toward mental illness [30]. In particular, clinical experiences alone have been found to promote positive attitudes toward mental health nursing. Theoretical components presented before clinical placement play an important role in cultivating a positive attitude toward PMI and psychiatric nursing. Moreover, clinical experience enables students to develop professional competencies to meet the needs of PMI by providing a variety of learning opportunities [31].

Hence, it is clear that education is one approach to reducing stigma associated with mental illness, among other things [55]. In general, knowledge is expected to increase with increasing education level [49]. Knowledge is an important component of stigma and may affect attitudes toward mental illness because knowledge is an important component in the evaluation of anti-stigma [43]. Many studies have assessed knowledge and its association with attitudes toward mental illness and have revealed a correlation between knowledge and attitudes toward mental illness [6,11,33,35,36,42–47,49,56–58]. In line with previous studies, the present results showed that knowledge about mental illness was related to Indonesian nursing students' attitudes toward mental illness ( $P = 0.000$ ,  $r = -0.22$ ) in that lack of knowledge has a negative influence on attitudes toward PMI [44].

Besides education, contact is another approach to reducing stigma associated with mental illness [55]. Current findings showed that knowing or having direct contact with PMI was associated with attitudes toward mental illness. Numerous studies have shown that knowing or having direct contact with PMI increases the likelihood of having a positive attitude toward mental illness [11,29,39–42,59–67]. One study in particular showed that those who knew someone with a mental health problem had more positive attitudes to mental illness and attributed this to attitudinal change fostered by contact with PMI [41].

Previous studies have reported that females were less likely to stigmatize PMI and had fewer negative attitudes toward them than males. This was attributed to females being more empathetic [39], open-minded, and prepared to integrate PMI relative to males [48]. In contrast, however, the present study showed that gender does not affect attitudes toward mental illness among nursing students in Indonesia [37,41,42].

Regarding socioeconomic status, some studies have revealed a correlation between monthly family income and attitudes toward mental illness [29,39,40,63,68]. People with a high income were more likely to have a positive attitude because individual attitudes are influenced by sociocultural factors [29]. However, the present study found that monthly family income was not related to Indonesian nursing students' attitudes toward mental illness, in line with previous studies [37,38].

Personal experience with a mental illness refers to individuals who have or have had a mental illness themselves. Such experience with mental illness is obviously associated with attitudes toward mental illness [59–61,65]. While personal experience with mental illness has been shown to positively impact attitudes toward mental illness, these individuals are often excluded from correlative studies [60]. Interestingly, the present study found that personal experience with mental illness did not correlate with attitudes toward mental illness among nursing students in Indonesia [35,41,42,44,61].

Several previous studies have shown a correlation between a family history of mental illness and attitudes toward mental illness [29,38,39,61,63,65]. They reported that people who have a family

**Table 1**  
Sociodemographic characteristics and attitude toward mental illness of students ( $n = 317$ ).

Variables	n	%	Attitude (Mean $\pm$ SD)	Statistic value	P value
Gender					
Male	29	9.1	103.50 $\pm$ 9.50	-0.31	0.756 <sup>a</sup>
Female	28	90.9	103.80 $\pm$ 9.10		
Ethnicity					
Javanese	279	88.0	103.70 $\pm$ 8.90	-0.06	0.953 <sup>a</sup>
Non-Javanese	38	12.0	103.80 $\pm$ 10.60		
Year of study					
First	100	31.5	104.10 $\pm$ 8.50	16.65	<0.001 <sup>b</sup>
Second	109	34.4	106.00 $\pm$ 8.90		
Fourth	108	34.1	101.20 $\pm$ 9.40		
Monthly family income (IDR)					
$\leq 1,909,000.00$	125	39.4	103.95 $\pm$ 9.65	1.34	0.513 <sup>b</sup>
$> 1,909,000.00$	192	60.6	103.40 $\pm$ 9.10		
Experienced a mental illness					
Yes	79	2.5	99.50 $\pm$ 10.00	-1.19	0.232 <sup>a</sup>
No	238	97.5	103.90 $\pm$ 9.10		
Family history of mental illness					
Yes	20	6.3	101.90 $\pm$ 9.90	-0.73	0.468 <sup>a</sup>
No	297	93.7	103.90 $\pm$ 9.10		
Knowing or have direct contact with PMI					
Yes	220	69.4	103.90 $\pm$ 9.30	-2.35	0.019 <sup>a</sup>
No	97	30.6	105.60 $\pm$ 8.50		

Note: <sup>a</sup>Wilcoxon test.

<sup>b</sup>Kruskal–Wallis test.

history of mental illness had fewer negative attitudes toward mental illness compared with those who did not have a family history of mental illness because direct socialization with PMI reduced stigma or negative beliefs. In contrast, the present study showed that a family history of mental illness was not related to attitudes toward mental illness in Indonesian nursing students, in line with other studies [35,44].

## 5. Conclusions

The present study revealed that age, year of study, knowing or having direct contact with PMI, and knowledge about mental illness were significantly associated with attitudes toward mental illness among nursing students in Indonesia, while gender, ethnicity, monthly family income, personal experience with mental illness, and family history of mental illness were not. These findings have important implications for academic education. Strategies, including education about mental illness and direct contact with PMI, should be implemented to foster development of more positive attitudes towards mental illness and reduce stigma. There were some limitations to the current study. The present study only included nursing students from one university in Indonesia, which likely reduced the generalizability of the data.

## Conflicts of interest

None declared.

## Funding

The author(s) disclosed receipt of financial support for publication of this article which was supported by Diponegoro University.

## Acknowledgments

We are grateful to the nursing students who participated in our study..

## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ijnss.2018.09.005>.

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