



Photovoice as a Method to Assess the Perception and Behavioral Response to Potential Stigma Toward Mental Illness

Chlara Yunita Prabawati^(✉), Diah Priyantini, Reliani, Septian Galuh Winata, and Erfan Rofiqi

Department of Nursing, Faculty of Health Sciences, Universitas Muhammadiyah, Surabaya, Indonesia

chlarayunitaprabawati@um-surabaya.ac.id

Abstract. Photovoice is theorized to influence healthcare students to interact with the photos and captions as the choice of prior learning method. It is important to examine and further understand this mechanism of student learning in their management of mental illness. Objective: This study aims to evaluate the effectiveness of a photovoice intervention based on the perception of mental illness among healthcare students. Methods: The researchers conducted a quantitative study with a pretest/posttest study with a total of 150 participants. Data were collected at two-time points for the intervention group: before the intervention (time 1) by conducting the photovoice intervention, and after the intervention (time 2), by using The Opening Minds Scale for Healthcare Providers (OMS-HC); hence the validity and reliability with Cronbach alpha of $> .81$. This study was also conducting based on the ethical consideration. Result: The primary outcome was that the perception of mental illness among healthcare students significantly elevated, $13,88 \pm 3,162$ to $20,87 \pm 2,762$ with $p = 0,000$ ($p < 0,05$). Conclusion: Photovoice as a method showed the elevated perception toward mental illness among healthcare students.

Keywords: Photovoice · Perception · Mental Illness · Healthcare Students

1 Introduction

Nursing colleagues are committed to reducing stigma toward patients with mental illness [1]. These issues have been supported by the WHO, Association of Indonesia Nurse Education Center (AINEC), Indonesian National Nurses Association (INNA), and Indonesia Mental Health Nurses Association (IPKJI), delivered by health care providers, the institution of education including nursing students [2–4]. Undergraduate nursing students need to enhance their perception before their readiness to go to clinical practice and need an attitude toward patients related to the stigma given to clients [2, 5–7].

Photovoice is theorized to influence the nursing students to interact with the photos and captions as the choice of prior learning method, mostly described in qualitative [5, 6, 8]. The integration of method practices focuses on outcomes prior to developing student attitudes toward mental illness. This study aims to evaluate the effectiveness of

a photovoice intervention based on the attitude toward patients with mental illness and perception and motivation among nursing students.

The foundation of perception among undergraduate nursing students was followed by the pathways of the competencies in the Psychiatric Nursing Curriculum. The Framework Integrating Normative Influences on Stigma (FINIS) and The Photovoice-Based Intervention (orientation, application of photovoice-based intervention, and evaluation) integrates facing the stigma toward clients with mental illnesses and their family caregivers [7, 9, 10].

The procedures of the photovoice-based intervention are (1) orientation, (2) photovoice structure, (3) evaluation (4) recommendation. For the orientation stage, the researchers explained the objectives and materials of the teaching materials based on ELO of the Psychiatric Nursing Curriculum. Then, students filled out a questionnaire as a perception pretest. Nursing students got the assignment of photovoice and understood the learning construct, including instruction, discussion, and story sharing about awareness of stigma management and negative labelling of mental illness. Students also agreed on ethical principles related to the rights of patients, with examples of not including personal data and exclusive photos of faces and privacy. In stage two of the photovoice structure, students chose photos as learning media, where the rules for selecting photos/photographs are the student's original photos (accompanied by a letter of the authenticity of the work). There is a description in the photo; it contains a portrait of stigma or discrimination against mental illness. There is a description of the effects of mental illness due to stigma. Students made credits for photos and descriptions. Undergraduate students conducted and analyzed the interpretation, perception, and perspective of stigma transformation, continued by nursing students who made reflections and reflected on stigma through a bio-psycho-social and spiritual approach where there is a transformation of negative labelling and understanding of personal recovery. In evaluation, students had a post-reflection by making presentations of 10–12 PowerPoint slides. The instructors reviewed initial and late perceptions of stigma and concluded and evaluated student learning outcomes. In the final stage of recommendation, the instructors had a reflection with the students related to the most meaningful experience on their project on their perception toward stigma [5–7, 11].

2 Methods

This study used quantitative research with a pretest/posttest study and intervention and control groups. The sample was undergraduate nursing students with inclusion and exclusion criteria. 150 undergraduate nursing students as participants enrolled, based on a sample size of 143 based on the G power software version. 3.1.2.9 with assumption level of $\alpha = 0.05$, effect size = 0.15, and power level = 0.80. This study used instruments of The Opening Minds Scale for Health care Providers (OMS-HC) for their perceptions with validity and reliability on good values with Cronbach alpha of 0.82 [12], Recovery Attitudes Questionnaire (RAQ-7) with validity and reliability of good values with Cronbach alpha of 0.70, and Motivated Strategies for Learning Questionnaire (MSLQ) for their behavioral response with validity and reliability of good values with Cronbach alpha of 0.87. This study implemented the ethical considerations and had permission toward

the ethical clearance from the ethical board and gave informed consent. Researchers respected principal of anonymity, justice, non-maleficence, beneficence, and autonomy. Meanwhile, analysis data used statistical package for social sciences (SPSS) verse 17 with a significant level of 0.05 [13].

3 Result

Table 1 shows the result of the demographic characteristic of the respondents. The average age was categorized as Adolescent and Young Adult (AYA), the majority of the gender was female (75%), and they had a history associated with the family of mental disorder (8%). The homogeneity test showed that there was no significant difference in the intervention and control groups, with the p-value $> 0,05$. Thus, both groups are homogenous.

Table 2 shows the result of the descriptive analysis between the two groups. The results of the pretest in the intervention group showed that students' perceptions of stigma in patients with mental disorders showed an average score of 13.88 and increased to 20.87 in the posttest. The lowest score in the pretest was 7, and the highest score was 18, while in the posttest, the lowest score was 13, and the highest score was 27. This already shows that an increase in scores was found in the intervention group. The control group showed an increase in the average value of only about 1.62. This shows that in the control group, the increase was only slight.

The attitude of students in assessing stigma regarding patients with mental disorders shows that in the intervention group, the average pretest score was 51.28 and increased to 66.32 in the posttest score. Whereas in the control group, there was no significant change, the attitude scores of the respondents tended to decrease from 46.64 to 45.52.

Table 1. Demographic characteristics

Characteristic	Category	Intervention Group		Control Group		P-value
		n	%	n	%	
Age	19 years	28	37.3	25	33.3	0.609
	20 years	25	33.3	27	36.0	
	21 years	22	29.3	23	30.7	
	Total	75	100	75	100	
Gender	Male	19	25.3	15	20.0	0.121
	Female	56	74.7	60	80.0	
	Total	75	100	75	100	
History of the associated family with mental disorders	Yes	6	8.0	3	4.0	0.139
	No	69	92.0	72	96.0	
	Total	75	100	75	100	

Table 2. Descriptive analysis between two groups

Variable	Pretest			Posttest		
	median	Min	Max	median	Min	Max
Perception						
Intervention	13.88	7	18	20.87	13	27
Control	18.33	12	30	19.91	12	30
Behavior						
Intervention	51.28	26	61	66.32	52	78
Control	46.64	39	53	45.52	33	55

Table 3. The effectiveness of a photovoice intervention based on the perception of mental illness among healthcare students.

Variable	Intervention Group			Control Group			P value
	Median	Min	Max	Median	Min	Max	
Pretest							
Perception	13.88	7	18	18.33	12	30	0.099
Attitude Behavior	51.28	26	61	51.28	26	61	0.087
Posttest							
Perception	20.87	13	27	19.91	12	30	0.000
Attitude Behavior	66.32	52	78	45.52	33	55	0.000

Table 3 shows the effectiveness of a photovoice intervention based on healthcare students’ mental illness perception. The results of testing data between groups using the Mann-Whitney test showed that in the pretest of the control and the intervention groups, the p-value showed > 0.05, so it was concluded that there were no significant differences from the control or intervention groups in perception, and attitude before being given the intervention. After being given the intervention, the results showed that there was a significant change between the control and the intervention group in the results of the posttest attitudes and perceptions with a p-value of < 0.05.

4 Discussion

For demographic characteristics, the study results from all groups show that the age range was categorized in the AYA (Adolescent and Young Adult) category and female. These results are relevant to the results of previous studies. The learning process of nursing students focuses on the process of preparing students for clinical practice in the field or hospital. Understanding personal recovery under 25 in the context of regular student phases is generally important, especially concerning student behavior towards

clients with mental disorders, which is the first experience and requires mental and technical preparation [14–16]. Students may criticize related to inadequate preparation before going to the field. In the perception of the female, this is closely related to their willingness to follow the curriculum process. In this case, male students also experience the same thing. The environment and process of positive support greatly affect the willingness to understand the perception patterns of students before practicing [17].

Perception: The results of the pretest in the intervention group showed that students' perceptions of stigma in patients with mental disorders showed an increase in scores on the posttest in both the intervention and control groups, but there was a difference in increase where the control group increased less than the intervention group. The results of this study are in accordance with previous research where the use of photography in photovoice is a valid tool to suggest a process of learning reflection and provide experience in the health approach [18, 19]. In the context of using photos, in this study, the photos were photos made or taken by the students themselves, not copying existing photos. Some research states that taking photos and photography will train students to be critical of the surrounding environment, especially in their perceptions of cultural approaches, values, and norms [18]. Using the self-photography method as a tool in stimulating skill processes will train students to express beliefs and the normal values that these students believe in. In this case, it will develop students' perception processes, especially in emphatic and engagement processes. In the process of perception and critical thinking, photovoice descriptions that contain the photography process can also stimulate students' creative and imaginative processes. This process is then continued by loading captions, which strengthens perceptions in reflecting on what the community or clients around them need with the views and perceptions of the students themselves [20, 21]. This reflection process relates to the context of critical pedagogy learning, which relates to learning processes related to humans, situations, and society, where the concept of health promotion is emphasized here. This critical pedagogy learning acts as a bridge between health and education which trains the perception process and increases the student's self [22]. Another study that examines the implementation of photovoice on caregivers of clients with dementia states that the photovoice process stimulates critical feedback processes related to information sources. This process will transfer students' knowledge to themselves, friends (peers), society, and clients. In this transfer process, a self-advocacy network system will be formed, which is perceptually stimulated from the process of telling a photographic display or picture from a photovoice [23–25].

Attitude Behavior: The results of this study indicate that the attitude of students in assessing the stigma regarding patients with mental disorders shows that in the intervention group, the score experienced an increase in the posttest score. However, the control group did not experience significant changes. The results of this study are in accordance with the previous study of [26] regarding attitudes and attitudes in assessing stigma by undergraduate students in Europe and Australia, but this is not consistent with research by [4] regarding the stigma of students and traditional groups that have not changed. The photovoice process strengthens students' learning abilities. It exercises a positive attitude toward clients with mental disorders, but from previous research, this will relate to their attitude process of students' positive behavior towards clients with

mental disorders ([5]. In addition, other studies add that the effect of curriculum implementation and understanding will affect the stigma process. This is, for example, related to the stimulation of positive behavior due to the understanding process in giving writing assignments related to the patient's recovery process [25, 27]. The rationale for this result is also supported by qualitative research, which states that a better understanding of client recovery is aligned with the values of client understanding [25]. However, no research focuses on the process of writing methods or captions, reflectively supporting this personal recovery process.

The Effectiveness of a Photovoice Intervention Based on the Perception Toward Mental Illness Among Healthcare Students: The results of this study indicate that after being given the intervention, the results showed that there was a significant change between the control group and the treatment group in the results of the post-test of attitudes and perceptions. This is related to several aspects, namely the use of photovoice as a learning method and media for health promotion[28–30], providing opportunities for students with intervention groups to become more integrated into changes in their communities and personalities (agents of change). With the narrative caption process, students are not only trying to tell what they understand but also clarifying what phenomena actually exist and occur in educational targets. Previous studies have consistently stated that photovoice is closely related to intervention-like interventions by participants. This is consistent with empowerment theory which explains opportunities for reflection and action that can stimulate the development of participatory abilities and deeper understanding. In practice, there are indeed several challenges in photovoice, namely the long period, supporting groups, preparation of procedures, the process of compiling photos by participants, where the high awareness of researchers and participants regarding ethical concerns and the process of taking pictures is an important concern. The focus of this privacy is not to take pictures of faces explicitly, not to take the wrong angle in individual privacy, or to use photos for commercial purposes. This concern entered the orientation phase and was approved by participating respondents [24, 31–35]. In its context, photovoice combines traditional research processes, namely documenting or “capturing” moments, with a new concept, namely giving participants a voice. In this case, research on photovoice has good potential in education, mental health practice, regulations, and social education.

5 Conclusion

The primary outcome was that the perception of mental illness among healthcare students have significantly elevated. Photovoice as a method showed the elevated perception toward mental illness among healthcare students.

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Availability of Data and Material. The authors declare that all other data supporting the findings of this study are available within the article.

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Declaration Ethical Consideration. This study was approved by the Health Research Ethics Commission with respect the ethical principle and the informed consents were obtained in this study.

Conflict of Interest. The authors declare no conflicts of interest regarding the publication of this paper.

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