

## Undergraduate Nurse Student's Perceptions of Being Health Volunteer during Merapi Mountain Eruption 2010

### *Persepsi Menjadi Relawan Kesehatan Mahasiswa Ilmu Keperawatan Selama Letusan Gunung Merapi 2010*

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#### **Abstract**

*This current study aimed to investigate undergraduate nurse students' perceptions and experiences of being health volunteer during Mount Merapi eruption on 2010. A nonexperimental, descriptive design was used. A total sampling of 26 undergraduate nurse students who become health volunteers during Mount Merapi eruption completed self administered questionnaire. The questionnaire which consisted open and closed ended questions was used to measure students' self awareness and what they have learnt. Data were aggregated and analyzed using simple descriptive analysis. Result indicated that undergraduate nurse students had internal motivation of being health volunteers during disaster. This study found results of students' self assessment of their knowledge and skills capability. Findings of this study contributes benefits, future impact of being health volunteers. Students' perceptions and experiences during disaster underscores the importance factors in the promotion of disaster management competency in nursing education.*

*Key words: health volunteers, nurse students, disaster*

#### **Abstrak**

Penelitian ini bertujuan untuk mengetahui persepsi dan pengalaman mahasiswa keperawatan saat menjadi relawan kesehatan selama bencana letusan Gunung Merapi. Penelitian ini merupakan penelitian deskriptif. Sampel yang digunakan adalah total sampling yaitu sebanyak 26 mahasiswa keperawatan yang menjadi relawan kesehatan bencana letusan Gunung Merapi 2010. Kuesioner yang terdiri dari pertanyaan terbuka dan tertutup digunakan untuk mengukur persepsi dan pengalaman mahasiswa keperawatan dan apa yang telah mereka pelajari saat menjadi relawan. Data dikumpulkan dan dianalisis menggunakan analisis deskriptif sederhana. Hasil penelitian ini menunjukkan bahwa mahasiswa memiliki motivasi internal untuk menjadi relawan kesehatan selama bencana. Penelitian ini menunjukkan hasil dari evaluasi diri mahasiswa terhadap pengetahuan dan ketrampilan mereka. Hasil penelitian penelitian ini menggambarkan manfaat menjadi relawan kesehatan di masa depan. Persepsi pengalaman mahasiswa keperawatan saat menjadi relawan kesehatan selama bencana menggarisbawahi pentingnya peningkatan kompetensi manajemen bencana dalam pendidikan keperawatan.

Kata kunci: relawan kesehatan, mahasiswa keperawatan, bencana

## **INTRODUCTION**

International Federation of Red Cross (IFRC, 2009) defines a disaster as “a sudden, calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community’s or society’s ability to cope using its own resources”. Moreover, from the health care professionals’ point of view, disasters can be defined from effects on people’s health and on health services .<sup>1</sup> Disaster can be categorised into three based on its origin, including: natural, human induced and mixed (natural and human).<sup>2</sup>

Indonesia is a vulnerable country since it has a great risk of disaster which may caused by natural, human induced or mixed causes. In the past 5 years, many disasters have happened in Indonesia including earthquake, tsunami, earthquake and tsunami, flood, landslides and bomb attacks. Yogyakarta, one of a province in Indonesia has experienced several natural disasters, like earthquake which happened in 2006, and Mount Merapi eruption which happened in 2006 and 2010. The National Disaster Management Agency (NDMA) estimates that 778 disasters have occurred within the past 5 years, with more than 13000 were killed.<sup>3</sup>

Nurses, as a part of health care sectors will be in the front line of any emergency response. In order to prepare health professionals to respond during emergency condition appropriately, various universities have developed competencies for health professionals. In line with this, School of Nursing, Universitas Muhammadiyah Yogyakarta have developed competencies for undergraduate nurse student. The competencies include an ability to do initial assessment, ability to do Basic Life

Support, and an understanding about disaster management and nursing care plan during emergency condition. <sup>4</sup> In addition, there is also an extracurricular, named Nursing Care Club which focus on the development of practical skills of undergraduate nurse students. Along with teaching and learning process, it is expected that undergraduate nurse students have a responsiveness and competency, particularly in emergency condition, such as during disaster. Being health volunteers is one of strategies to develop the responsiveness and the competency. Little research, however, has investigated nurse students experiences of being health volunteer during disaster.

This paper reports on a study that investigated of being health volunteers during Mount Merapi eruption from the perspective of undergraduate nurse students and explored the attributes required for being a good health volunteer.

## **MATERIAL AND METHODS**

This study employed a descriptive design to explore undergraduate nurse student’s perceptions and experiences of being health volunteer during Mount Merapi eruption, of which there is limited evidence. According to LoBiondo – Wood and Haber (2006),<sup>5</sup> a descriptive study is ideal when studying an area where limited research has been undertaken.<sup>5</sup> Undergraduate nurse students who have been a volunteer during Mount Merapi eruption were approached in such a way that they had time to consider whether to participate and did not feel pressured into taking part in this study. A package containing a questionnaire and consent form, was administered to participants. Participants then could determine whether to participate, or withdraw

without prejudice. All data collected was de-identified, coded and securely stored in line with the principles of ethical conduct.

Participants investigated in this study were all of undergraduate nurse students of Universitas Muhammadiyah Yogyakarta who have been volunteers during Mount Merapi eruption. A total sampling was applied in this descriptive study. All of the undergraduate nurse students who have been volunteers were invited to participate in this study. These participants were chosen because they had experiences of being health volunteer during a natural disaster.

A questionnaire was developed specifically to address the objectives of the study. Open and closed ended questions examined the concepts identified during the literature review. Questions which related to perceptions and benefits of being health volunteer were presented in a Likert-scale, with ratings from 1 (strongly disagree) to 5 (strongly agree). Open-ended questions gave participants the opportunity to expand upon their views. In the questionnaire which administered to the participants, open – ended questions explored participants' opinion about their experiences and benefits of being health volunteers. In the last section of the questionnaire, participants were asked to make priority about attributes required to be a good health volunteer. The completed self-enumerated questionnaire was administered to all of 26 participants.

Each completed questionnaire was assigned a unique number to allow accurate tracking with entered data. Responses were coded and entered into a spreadsheet program for efficient data han-

dling management and handling. Descriptive and frequencies statistics were calculated to analyze the responses.

## RESULT

Completed returned questionnaires were 26 (100 %).

The questionnaire sought demographic information about the participants, specifically, age, gender, and years of study. Frequency statistic were used to analyse distribution. The result was presented in Table 1.

All of the participants, the majority were between 20 -24 years old, 18 (69, 23%), female, 16 (61.54%), and in their fourth years, 13 (50%).

Undergraduate nurse students' perceptions and benefits of being health volunteers is presented in Table 2.

There were 18 questions in the questionnaire which asked about motivation (1), feeling experienced being health volunteers (4), Self evaluation of ability being health volunteers (4), Evaluation of knowledge and skills owned (4), Benefits of being health volunteer (3), and impacts for future (2).

**Table 1. Distribution of Undegraduate Age, Gender, and Years of Study**

	Demographic	Frequency	Procentage
<b>Age</b>	< 20	8	30.77
	20-24	18	69.23
<b>Gender</b>	Male	10	38.46
	Female	16	61.54
<b>Years of study</b>	1	4	15.4
	2	4	15.4
	3	5	19.2
	4	13	50

**Table 2. Undergraduate Nurse Students' Perceptions of Being Health Volunteers**

Items	Strongly Agree		Agree		Uncertain		Disagree		Strongly Disagree	
	n	%	n	%	n	%	n	%	n	%
<b>Motivation</b>										
- Internal	6	23	20	77	0	0	0	0	0	0
<b>Feelings experienced for being health volunteers</b>										
- Underpressure	0	0	0	0	3	11.5	8	30.8	14	53.8
- Full of spirit	22	84.6	6	16.4	0	0	0	0	0	0
- Benefit	21	80.8	5	19.2	0	0	0	0	0	0
- Self confidence	12	46	24	54	0	0	0	0	0	0
<b>Self evaluation of owned ability for being health volunteers</b>										
- Feels capable	6	23	20	27	0	0	0	0	0	0
- Communication with clients	9	34.6	16	61.6	1	3.8	0	0	0	0
- Communication with other volunteers	12	46.2	13	50	1	3.8	0	0	0	0
- Collaboration with other team	12	46.2	14	53.8	0	0	0	0	0	0
<b>Evaluation of owned knowledge and skills</b>										
- Poor knowledge	2	7.7	10	38.5	3	11.5	11	42.3	0	0
- Having sufficient knowledge	3	11.5	16	61.5	7	27	0	0	0	0
- Having poor clinical skills	5	19.2	13	50	3	11.5	0	0	5	19.3
- Knowledge owned can be applied	14	53.8	11	42.3	1	3.8	0	0	0	0
<b>Benefits of being health volunteer</b>										
- Organizational skills improved	13	50	12	46.2	0	0	0	0	0	0
- Clinical skills improved	10	38.5	14	53.8	2	7.7	0	0	0	0
- Knowledge about disaster management improved	12	46.2	14	53.8	0	0	0	0	0	0
<b>Impacts for future</b>										
- Willingness to learn more	25	96.2	0	0	0	0	1	3.8	0	0
- Willingness to be a health volunteer	21	80.8	5	19.2	0	0	0	0	0	0

All participants agreed that they had internal motivation for being health volunteer, strongly agree (23%), and agree (77%). Regarding to questions about feeling the participants experienced being health volunteer, 14 (53.8%) stated their strong disagreement if they felt underpressure, but 3 (11,5%) felt uncertain. All of the participants stated their agreement that they felt full of spirit, and self confidence for being health volunteers. Regarding to the benefit of being health volunteers, all of the participants stated their agreement, 21 (80.8%) strongly agree, and 5 (19.2%) agree.

All participants agreed that they had a good collaboration skills, 12 (46.2%) strongly agree and good capability, 20 (76%) agree. Most of the participants stated their agreement that they had good

communication skills both with clients, 23 (96.2%) and other volunteers, 23 (96.2%). Regarding to questions about evaluation of knowledge and skills, 7 (27%) felt uncertain, and the rest felt having sufficient knowledge.

Most of all participant stated their agreement that being health volunteers give them benefits, including improved organizational skills (100%), improved clinical skills (92.3%), and improved knowledge about disaster management (100%). Considering the benefits they got, all of the participant 26 (100%) stated their willingness to be health volunteer in the future.

In the last part of the questionnaire, the participants were asked to prioritise the attributes of being good health volunteers. There were three top

priorities of the attribute: empathy, honesty and good team work capability.

## DISCUSSION

Being health volunteers gives good impression for undergraduate nurse student. This study contributes to what is known about nursing disaster management, particularly being health volunteers during the disaster.

The demographic details of the participants of this study showed that there were some similarities between the participants and nurses in the world. Globally, nursing is predominantly female profession. Sixteen of 26 participants (61,54%) were female. More females involved in nursing may be resulted from a belief that femalemare more caring to patients and a nurse should be a female. Half of the participants were in the fourth years of nursing education. The fourth years undergraduate nurse students have obtain courses about emergency nursing and disaster management. It seems that more knowledge they have obtained, undegraduate nurse student more eager to be health volunteer.

Most of the participants stated their agreement that they have a good communication skills with clients. The undergraduate nurse students of UMY have been taught communication in their first year. Communication skills play a crucial roles during emergency condition.<sup>6</sup>

The participants stated about the benefits they got including improved clinical skills and knowledge about disaster management, and improved organizational skills. Being health volunteers enable undergraduate nurse students to learn more not only

about the knowledge and practical skills, but also about soft skills.

There were top three attributes which required for being good health volunteers, including: honesty, empathy, and good team work skills. It seems that the participants have learned that empathy is needed during delivering support for victims of disasters. Emphaty will also shows professionalism of a profession, it is in line with the school of nursing mission which is to produce a professional nurse. The participants also realize that having good team work skills is important, since a good disaster management requires interprofessional collaboration.

This study was a simple survey using a self-completed questionnaire and a small-scale study involving only undergraduate nurse student studying at a university thus generalizations across the entire population of undergraduate nurse students cannot be made. No other studies similar to the present study were found. Therefore, it was difficult to compare and contrast the results of the present study with those of previous studies and the replication of this study to other setting is needed. Nevertheless, the results provide some insight into the future of disaster management for undergraduate students, particularly about the effectiveness and benefit, and provide the basis for further research.

## CONCLUSION

In general, being health volunteers give several benefits and all undergraduate nurse students state positive experiences of being health volunteers. Additional research could further evaluate the

effectiveness of being health volunteer and its applicability in different situation. In addition, the undergraduate nurse students believed that personal attributes, including honesty, empathy and good team work skills are important for being a good health volunteer during a disaster.

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