

Improving nursing students' knowledge about health myths in Indonesia



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ABSTRACT

Health myths are one of the factors that can hinder the achievement of government programs in the health sector. The resistance that arises from the community can be even greater if the believed myths have taken root in social life and are considered to have magical elements in their implementation. To change the errors in people's health beliefs in society, health workers are important in providing proper health education and health literacy to all levels of society. Based on the problems found, the team's goal was to improve nursing students' knowledge about health myths in Indonesia. This activity was implemented for 199 nursing students from 7 provinces (DKI Jakarta, West Java, Banten, Jambi, East Java, Central Java, and Southeast Sulawesi) online through Zoom meetings. This activity was the final series of activities conducted by the Institute of Training, Education and Research, Nurse Share Idea (NSID) about health myths that exist in Indonesia, while the implementation of this series of activities was done from November 2020 to August 2021. The results of the Wilcoxon testing of the activities had the value of $\text{sig} = 0.002 (<0.005)$, which means that the activities have had a significant and positive impact on improving nursing students' knowledge about health myths in Indonesia. Four of the 14 topics of understanding health myths were decreased. These four topics are related to myths in nursing care. The results indicated that activities could increase participants' knowledge of health myths. However, nurses still experience confusion preventing myths in implementing nursing care for patients. Other activities can focus on increasing efforts to counteract myths in implementing nursing care.

Keywords: Nursing students; health myths; knowledge.

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INTRODUCTION

Health is a basic human right of every Indonesian citizen. Unfortunately, the concept of health and illness in this country still focuses on the treatment or curative aspects only, while the health-promotive side that is preventive in nature before the illness occurs has not been implemented optimally. Health myths are one of the factors that can hinder the achievement of government programs in the health sector. The resistance that arises from the community can be even greater if the believed myths have taken root in social life and are considered to have magical elements in their implementation. The results of research conducted by Adinolfi and Borgonovi in 2018 stated that at least three factors can influence the health myths that exist in society, namely religious teachings, socio-economic status, and community characteristics.¹ Other

studies stated that available information sources or previously owned knowledge variables, gender, and education are also important factors that influence health myths that exist in society.²

Myths and beliefs are part of the culture that has existed for a long time in Indonesian society. Several factors that exist in the community can indirectly increase the strength of the health myths they have. To change the errors in people's health beliefs, the role of health workers is important in providing health education and health literacy to all levels in society. The approaches taken by health workers toward community and religious leaders can increase the percentage of success in preventing the development of false health myths.³ Myths that have been rooted in society can be prevented by increasing health literacy in the community since literacy is known to have a vital role in forming individual opinions with truth

and facts related to health or being able to strengthen health myths that exist in society through discoveries based on scientific methods.⁴

Myths, beliefs, and culture in society greatly affect how a person behaves; however, these myths and beliefs and culture are not always negative or hinder a health behavior. Some myths and beliefs are also known to support health behavior, so it is better if these positive myths can be strengthened, especially for health workers. Myths and beliefs supporting public health conditions can be preserved or modified and strengthened when health workers encourage people to behave healthier.⁵ Research conducted by Irmawati in 2017 explained that myths that exist in society are not always beneficial for their health.⁶ Furthermore, health workers need to examine the philosophical meanings (ethics and aesthetics) of the existing myths. From an ethical perspective, there

are values of obedience, goodness for health, prudence, vigilance, and courtesy towards ancestral teachings that are closely held by the society. Meanwhile, the aesthetic dimension includes the value of unity and complexity which ultimately affects the pattern of life and interactions in society.

Health workers need to understand that there are some myths that, if they are upheld, can bring good effects, and there are also myths that, if ignored, can bring disaster. Therefore, a careful approach to society and family is important so that the good for health myths can be maintained, and the bad ones can be abandoned.⁷ Factors that can affect the success of health workers in conducting health education related to health myths that exist in society are at least influenced by two aspects, namely internal factors and external factors. Internal factors consist of the behavior and level of understanding individuals possess, while external factors involve environmental conditions around the individual. These factors need to be considered by health workers so that there are no misperceptions and misunderstandings from the society when health workers try to explain existing myths through logic and modern health science approaches.⁸

Health myths that occur and grow in society are often considered as a part of or an effort made by the older generation to show power and maintain control of the younger generation. Promotive and preventive actions against wrong health myths can be done with nursing students in the hope that they can become agents of change in the future in society. The selection of nursing students as the target participants for the activity was based on the fact that nurses are one of the health professions with the largest members in Indonesia. Besides that, patients spend more time interacting with nurses in health services than other health workers. The next reason is that until this activity was accomplished, implementing socialization activities about health myths for prospective health workers was still very rare in Indonesia. Based on the problems found, the team intends to improve the nursing students' knowledge about existing health myths in Indonesia.

METHODS

The implementation of these activities was conducted online through Zoom meetings. The media of the presentation used power-point presentations. Each meeting lasted approximately 60 minutes, including questions and answers session. The trainers in this meeting are academics in the field of nursing. One trainer is a Pediatric Nursing Specialist, the other one is a Psychiatric Nursing Specialist, and the other team members are four nursing students who won the national essay competition "*Health Myths in Indonesia*".

This activity is the final series of activities conducted by the Institute of Training, Education and Research, Nurse Share Idea (NSID), about health myths that exist in Indonesia. In contrast, this series of activities was implemented from November 2020 to August 2021. Twenty-five teams were involved in preparing the health myth essay script, where one tutor guided 3-4 teams. Guidance by tutors was done once a week via Zoom. The four selected teams presented their essays as an outreach effort to participants in the Zoominar on September 15, 2021 (Figure 1). In general, the information provided to participants consisted of 8 topics which include: (1) The concept of myths and hoaxes, (2) The concepts and facts of health myths, (3) The forming factors and reasons why society believes myths, (4) Reflection of myths from religious symbols, (5) Prevention of misinformation and ways to determine the truth of information, (6) The role of nurses and ethical aspects in cases of nursing care that intersect with myths, (7) Appropriate communication to ward off false health myths, and (8) The nurse-patient relationship in the nursing process in the face of health myths that are contradictory or not.

The pre-test and post-test questionnaire forms used consisted of 14 questions containing 14 topics, as shown in Table 1 (attached in the results). The questionnaire used is a modification of the last version made by the Nurse Share Idea (NSID) team in 2020. The validity and reliability tests of the modified questionnaire were done before the questionnaire was used for community service activities. The participants filled out the questionnaire

via Google form. The results of the activity implementation were then assessed for their usefulness based on the pre-test - post-test scores from the participants. Then, an analysis of the normality of the data distribution was done to determine whether the data analysis used was parametric or non-parametric analysis.

RESULTS

Participants in this activity were health students from 7 provinces (DKI Jakarta, West Java, Banten, Jambi, East Java, Central Java and Southeast Sulawesi), with the percentage of the number of participants attached in Figure 2. The results of the implementation of knowledge improvement activities for nursing students about health myths in Indonesia can be seen in Table 1.

Based on Table 1, it was found that there was an improvement in participants' knowledge regarding the concept of myths and appropriate communication to deal with patients who believe in health myths at risk, with 1% from the pre-test results. Additionally, there was an improvement of 2% related to the concept of hoaxes, an improvement of 11% in the concept of health myths and myth-forming factors in society, 3% improvement in health myth facts, 9% improvement in the topic of reasons why the society believes myths, 4% improvement in criteria in deciding the truth of information, and 7% improvement in the role of nurses in dealing with patients with firm beliefs about health myths. Based on the results, it is known that the largest increase in scores occurred on the topic of the concept of health myths and myth-forming factors in society (+11%) and the topic of reasons why myths are believed by society (9%).

From the topics discussed, there was a decrease in the percentage of correct answers between the pre-test and post-test, which consisted of the topic of mythical reflection of religious symbols (-1%), ethical aspects in nursing care related to handling clients that intersect with myths and health myths that do not conflict with nursing care (-2%), nurse-patient relationships in the nursing care process related to health myths (-9%), and prevention of misinformation (-7%). The



Figure 1. Implementation of the nursing student knowledge improvement program related to health myths in Indonesia.

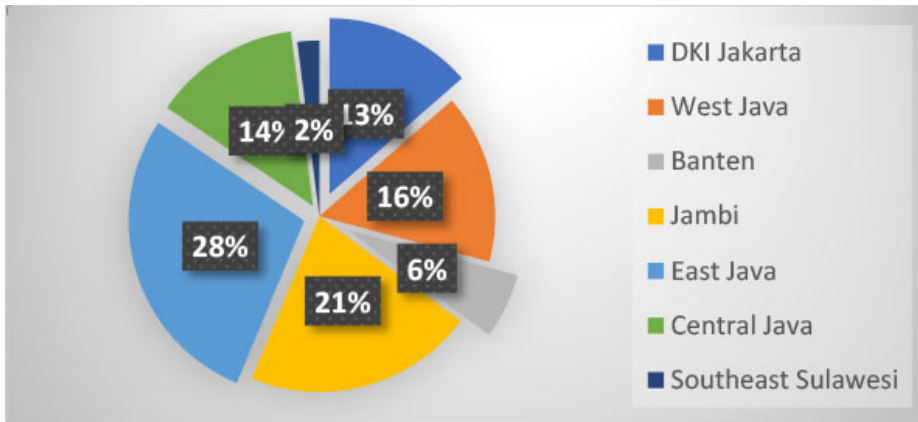


Figure 2. Percentage of participants' origin.

decline was mostly due to the relatively difficult material provided, which was given in a short implementation time.

Figure 3 shows found that there was a positive difference between the average posttest (74.7) and pretest (71.5) scores of participants (+3.2 points) on a scale of 100. The above shows that the knowledge improvement activities conducted for nursing students positively affected the average scores obtained by the participants. To support the above results, the authors conducted statistical tests to determine whether the activities can be said to be significant.

Table 2 shows the results of the normality test for the total pre-test data (Sig = 0.000) and the total post-test (Sig = 0.000) which shows that the data distribution was not normally distributed, so the analysis was done with the Wilcoxon test (non-parametric). The results of the Wilcoxon test are shown in Table 3, which shows that the value of sig = 0.002 (<0.005) means that the activities that have been done have a significant and positive impact on improving nursing student knowledge about health myths in Indonesia.

DISCUSSION

Myths that develop in modern society today are also supported by the ease with which people can access health information. Viral misinformation has become a threat to public health since it has never been easier to find and share information about health and medicine in human history. However, much of the information found on the Internet and shared on social media is inaccurate and potentially dangerous. As more and more people search for health content online, it will become increasingly important for healthcare professionals to find effective ways to direct the public to logical information and away from myths and pseudoscience.⁹ The ease of public access to health information is known to be one of the main causes of wrong perceptions in society. Health workers, especially nurses, are the main guard in keeping society informed of correct health information and health facts.¹⁰

Myths are beliefs held to be true despite substantial refuting evidence. Myths are perpetuated by telling and re-telling. They also have value: in other contexts, they are a source of comfort and help people explain

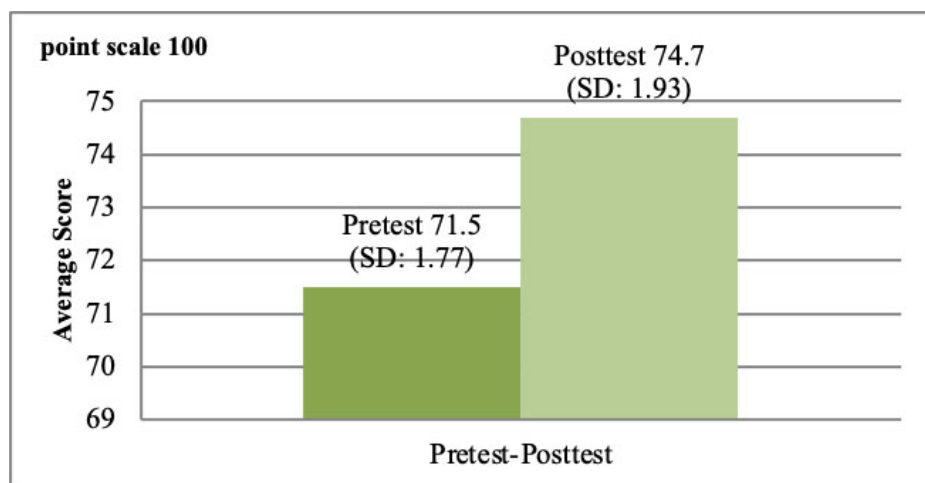
where they come from, why the world is as it is, and why things are the way they are.¹¹ Human psychological conditions often cause people to firmly hold on to old beliefs, especially when they are in environmental conditions that support their health beliefs. Changes in new concepts brought by health workers to the old ones held by the community are often considered a betrayal of their culture. As a result, a slow and sustainable approach is one of the best efforts in changing the health beliefs of a community.¹² Prevention of myths in the world of health can be done effectively locally and on a larger scale if there is good collaboration between various parties, both from professional staff and community groups.¹³

Nurses are people who passed a higher education in Nursing, both domestically and abroad, which the Government recognizes, and they play an important role in providing care to individuals, families, groups, or communities, both sick and healthy.¹⁴ Nursing education in Indonesia has experienced a very rapid development, starting from only functioning as an assistant to medical personnel with a high school equivalent degree until finally, in 2008 a nursing doctoral program was opened. However, the nursing education system in Indonesia is still not optimal. There are still many nurses who cannot distinguish between the work of a nurse and a diploma nurse, which is one real case of the failure of educational institutions to instill the higher quality and capacity of a nurse in their graduates.¹⁵ O'Rourke and Iammarino in 2020 in their article stated that as a professional, a nurse is required not only to have sufficient knowledge of the latest health issues but also to play a role in creating better health conditions in the society.¹⁶

The lack of correct information about a health problem, especially for diseases

Table 1. Changes in participants' knowledge (n: 199).

No.	Topic	Pre-Test		Post-Test	
		Correct Answer	%	Correct Answer	%
1	Myth concept	179	90	182	91
2	Hoax concept	95	48	99	50
3	Health myth concept	128	64	150	75
4	Health myth facts	42	21	47	24
5	Factors that form myths related to public health	150	75	171	86
6	The reason people believe myths	106	53	123	62
7	Mythical reflection of religious symbols	164	82	162	81
8	Misinformation prevention	45	23	31	16
9	Criteria for deciding the correctness of information	67	34	76	38
10	The role of nurses in dealing with patients with high beliefs about health myths	156	78	169	85
11	Ethical aspects in nursing care related to the handling of clients who intersect with myths	40	20	36	18
12	Appropriate communication to deal with patients who believe in risky health myths	103	52	106	53
13	The nurse-patient relationship in the nursing care process related to health myths	76	38	67	34
14	Health myths that do not conflict with nursing care	71	36	67	34

**Figure 3.** Comparison of the average scores of all participants (n=199).**Table 2.** Data normality test results (n=199).

	Kolmogorov-Smirnov ^a		
	Statistic	df	Sig.
TotalPre	.135	199	.000
TotalPos	.118	199	.000

Table 3. Wilcoxon test results (n=199).

	N	%	Asymp. Sig. (2-tailed)
TotalPos – TotalPre	Negative value	56	28.14
	positive value	82	41.21
	Ties	61	30.65
	Total	199	100

considered strange for the people of Indonesia, can make people highly resist due to their ignorance. This resistance will have an impact on the development of false

health myths and increase the possibility of people not following the health advice given by nurses. This condition will increase when the health problems that arise are directly related to the factors of religious beliefs held by society.¹⁷ Therefore, nurses as part of health services in the community need to be updated regularly and provide information on an on-going basis related to problems that arise in society as an effort to minimize the impact that will occur.¹⁸ Knowledge-improving activities for nurses related to existing health topics are known to positively strengthen their knowledge as capital in providing the correct information in society.¹⁹ Nurse alertness has an important role and a positive influence on success in preventing misinformation in society. Therefore, continuous updates related to nurses' understanding can be one method that can be done to safeguard the accuracy of the health information provided to society.²⁰

Some indicators of knowledge in the post-test decreased even though it was insignificant. The decline in some of these indicators may be due to low literacy, confusing or new information, and the existence of stigma in society. Dewi supports this in 2021 on her study of religion, myths and the science of COVID-19 from the perspective of the

people in an Aceh region, who revealed that some people said the virus was a myth. In addition, some people believe that the virus will not affect the Aceh people except those from China where the virus was found.²¹ The information obtained by the community is very varied and needs validation to determine the most accurate information.²² Information literacy skills are also needed for social media users in seeking information about health in order to avoid hoax information that is widely circulated today.²³

The amount of information in the community is confusing, causing the need for control over the news, which social media have dominated with invalid information, that is bombastic and fake.²⁴

The limitations faced by the team during the implementation of the activity was due to the media being used, which was online Zoom meetings. Online learning media such as Zoom meetings have various obstacles, including poor signal problems and frequent strange sound disturbances that interfere with learning activities while turning on the microphone.²⁵

This of course will hinder participants' understanding of the material presented. Moreover, the activity was done in a relatively short period of time. This is slightly different from the concept of the Health Belief Model which stated that increasing a person's level of knowledge takes at least 3-6 months of continuous implementation. Therefore, at least some inputs can be a concern for implementing further activities such as the need for continuous activity planning with evaluation methods that are also sustainable to ensure that participants understand the given topic. This is besides the importance of the activity committee to cluster groups of participants so that the provision of health information can be adjusted according to the participants' level of understanding.

Other limitations experienced by the team were, among other aspects, because the activities were done in the online Zoom meeting and there was not enough time to complete the learning tasks, so the information provided was still insufficient for nursing students. In addition to the pandemic conditions that limited face-to-face meetings, some other concerns could reduce the maximization of the process

of delivering the information provided. Further community empowerment should be done face-to-face or with hybrid methods to be more effective.

CONCLUSIONS

Health myths that exist in society do not always have a bad effect on people's health but can often benefit them. This study reported an improvement in students' knowledge of health myth in Indonesia (10/14). A logical, modern and evidence-based approach to health programs in viewing these health myths needs to be massively disseminated to society so that they can decide to abandon or modify the old myths that have been passed down for generations in their lives. Nurses have a role in facilitating public access to reliable health knowledge and information through promotive and preventive activities that are continuously related to mythical issues. In supporting the role of nurses, activities to increase the knowledge of nurses and prospective nurses on topics related to health myths are also an important part to be considered and these can be done on an ongoing basis because it has been proven to have a positive effect in its implementation. Some knowledge indicators (4/14) on this study decreased. Further community service programs could focus on increasing the society's understanding through implementing nursing care free from health myths.

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CONFLICT OF INTERESTS

The authors have no conflict of interest in conducting the activities and writing this article.

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AUTHOR CONTRIBUTION

AAP, IF, and C were in charge of drafting the concepts and being guarantors. while AAP,

NAD, and AFR was in charge of creating the design. All authors were responsible for the definition of intellectual content, literature search, study implementation, and data acquisition. Data and statistical analysis were performed by AAP, IF, C, NAD, and MC. Manuscripts were conducted by AAP, AFR, MC, and N. While the manuscript editing process was carried out by IF, C, and AFR. The final step, namely the manuscript review, was carried out by NAD, AFR, MC, and N.

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