EMPOWERMENT OF MIDWIVES AS DIGITAL HEALTH INFORMATION AGENTS AS AN EFFORT TO SAVE MOTHERS AND NEWBORN BABIES

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Abstract

The advancement of communication and information technology in Indonesia has become one of its strengths for handling maternal and infant mortality in Indonesia; with good skills in managing information using advanced technology and information sources from a midwife, the public will more easily recognize the signs of an emergency felt by pregnant women. and will give birth. This community service activity is carried out to increase the knowledge and ability of midwives to manage sources of maternal and newborn health information. The activity was carried out in Waluya District, Karawang Regency, and was attended by 20 midwives in the area. The activity found an increase in the knowledge and ability of midwives to manage digital information by 40%.

Keywords: Midwives, Information and Communication Technology, Health Information, Digital Literacy.

INTRODUCTION

Maternal mortality in Indonesia is still a significant problem in the health sector. The maternal mortality rate in Indonesia is still relatively high. It has not yet reached the target set out in the millennium development goals, namely reducing three-quarters of maternal mortality worldwide before 2015 (Rahmawati, 2013). The development goals after the MDGs are formulated in the SDGs are where the problem of maternal and infant mortality is still relatively tremendous and is the government's concern. Maternal mortality is a global public health challenge, with 99% of deaths occurring in developing countries. Poor pregnancy outcomes reflect a cyclical susceptibility to risk factors, most of which are preventable. Brazil made a breakthrough in maternal and newborn health literacy with a mobile application called Mommy that will assist and monitor the health of pregnant women, minimize their exposure to risk factors and break the cycle of maternal mortality. It is estimated that the widespread implementation and use of appropriate health resources can lead to better pregnancies and reduce the number of maternal and newborn deaths. The project will help break the cycle and achieve the 2030 Sustainable Development Goals to reduce maternal mortality and improve infant health (Chaves, Cifuentes, & Macedo, 2017).

Adequate health workers are one of the causes of the decline in maternal mortality and

infant mortality, and sufficient investment is needed to provide education for midwives so that every midwife who serves patients is exposed to reasonably good communication technology and expertise in handling patients in order to achieve female health reproduction in the future (Ten Hoope-Bender et al., 2014). The introduction of communication technology in the form of mobile health is an advantage that has a reasonably high impact on the existing health system (Higgins-Steele, Noordam, Crawford, & Fotso, 2015)

The government's response is needed to improve services and to handle emergencies for mothers and newborns, such as improving service standards, procedures, equipment, and competency of health workers. The existence of medical audits related to cases of maternal and newborn deaths needs to be held to see how far the handling process has been according to standards (Ten Hoope-Bender et al., 2014). The government deserves to prepare training to improve the ability of midwives, besides that the government also needs to innovate related information and communication networks that are good enough to connect midwives, pregnant women, and their families so that both midwives and their families can monitor current conditions and recognize signs of emergency experienced by pregnant women.

In saving mothers and babies, apart from medical factors, non-medical factors need to be considered, including the level of knowledge of the mother and her family. The advancement of communication and information technology is one of the advantages of saving mothers and newborns in Indonesia. Now both midwives and other health workers do not have to travel from one house to another, considering that health literacy can now use the devices owned by almost the entire world's population. Advances in communication and information technology are present to facilitate the human need for information (Xie et al., 2019). The existence of technology makes it easy for people to obtain health information, but no one can ensure the credibility of the information. The existence of communication technology allows anyone to become a producer of information and share it with the public without reconfirming whether the information shared is accurate (Oneal et al., 2019).

It is the obligation of academics, government, health workers, and health professional organizations to collaborate to increase public knowledge regarding the health of pregnant women and newborns. Social media can be one of the communication channels that can be used to educate the public (Stephens, Li, Robertson, Smith, & Murthy, 2018) to resolve the Covid-19 pandemic in Indonesia. The selection of social media as an alternative to sharing health information with the public (Roy, Hasan, Sadri, & Cebrian, 2020), research conducted in Japan shows that individuals are pretty active in seeking health information (Rahmi, Joho, & Shirai, 2019) in order to increase their knowledge about health and find solutions to the problems they face (Pang, Karanasios, & Anwar, 2019). Various social media can be chosen to disseminate health information to the public, including Instagram (Susilo & Putranto, 2021), Facebook (Feng, Wong, Wong, & Hossain, 2019), Twitter, and YouTube WhatsApp groups. The use of social media can be said to be very economical because it does not require costs like mass media in general, social media can be accessed through devices owned by some people in Indonesia.

Social media is still in demand to obtain various kinds of information during disasters (Roy et al., 2020), considering the speed of information can exceed the speed of conventional mass media. Everyone can access, create information and re-share the information with the public. Social media does not have to be owned by organizations or communities; it can even

be managed by individuals considering the procedure to get a social media account is not complicated and does not require anyone's permission to create it. Social media is also in great demand by almost all generations, not only the millennial generation. It is just that sometimes people do not realize that what is posted on social media the slightest will have an impact on human life. Currently, the use of social media is in demand by the public to find information, which is sometimes shared by individuals who are not experts in their fields. Therefore, it would be better if the shared health information comes from midwives and other health workers who know the health information clearly. It takes training for health workers so that every health worker can become a trusted agent of health information. The purpose of community service activities carried out by lecturers at Singaperbangsa Karawang University is to improve the ability of midwives to manage social media as a channel for information on the health of pregnant women and newborns, which is done digitally.

IMPLEMENTATION METHOD

This service activity will be carried out in the form of training for health workers so that health workers can become credible health information providers for increasing public knowledge regarding the health of pregnant women and those about to give birth. This training is carried out in three stages, including

1. Preparation

The first stage is to see the extent to which midwives use communication and information technology to disseminate information to the public and the extent to which midwives use their social media to disseminate information on the health of pregnant women to the public.

2. Implementation

The activity was conducted face-to-face, explaining how to produce information using the image and video-based social media and selecting hashtags. The next stage is disseminating health information carried out simultaneously through Instagram and TikTok. During the training, the staff also shared knowledge about photography techniques using gadgets and photo cameras and edited them using Canva.

3. Evaluation

In the service evaluation activity, a competition for making health information through social media was carried out to all participants, and this was done to see the extent to which the participants were able to produce information on maternal and newborn health.

RESULTS AND DISCUSSION

Community service activities were carried out in Waluya District, Karawang Regency; 20 midwives attended the activity at Waluya Glasses. In this activity, servants from Singaperbangsa Karawang University tried to transfer knowledge to increase midwives' knowledge in terms of using social media to disseminate information on maternal and newborn health. In this activity, materials were presented, including:

1. Identify what information can be shared through social media
2. Use social media wisely
3. Delivering information in the form of pictures
4. Edit images using Canva

The activity is carried out using the method of discussion, exposure, and mentoring so that partners can understand and practice what is conveyed by the servant.

Gambar 1 Kegiatan Pengabdian Kepada Masyarakat

People can obtain information in a variety of ways. They can obtain it independently or receive information even if they do not want it. In this process, information and communication technology advancements provide a new perspective on information-seeking in society. People nowadays have no difficulty finding information. Thanks to internet-based technology, people can now seek information from any source at any time and location. Information-seeking is the behavior of society in satisfying its information needs through reliable sources, which is carried out when people need the information to decide on actions to take.

Most people believe they lack sufficient knowledge to deal with health issues (Atkinson, Saperstein, & Pleis, 2009). People require information sources to satisfy their inquisitiveness because they lack information when confronted with a specific problem. To obtain health information, various methods are used. However, the ease with which people can obtain information does not necessitate reliance on technology. Some people prefer getting information from close and trustworthy family members (Bazoukis, Kalampokis, Papoudou-Bai, Bazoukis, & Grivas, 2020) or easily accessible sources (Sarafraz Ahmad, 2021). This differs from the technology-literate group, who believe it is easier to obtain information from social media because they can compare their situation to others.

In this activity, the ability of the participants before and after the activity was measured with the following results;

Table 1. Measurement of the behavior of using social media as a source of information for the community before and after the activity

Evaluation	Description	Before Activity	After Activities
Kognisi	Knowledge of social media as a means of disseminating information	6.6	8.5
Aleksi	Midwives' concern for information literacy on the health of pregnant women and	7.6	8.7

	those about to give birth		
Konatif	Midwives have a sense of responsibility to produce credible health information	5.7	8.7

CONCLUSION

This community service activity aims to increase the knowledge and ability of midwives in producing and disseminating information on maternal and newborn health to reduce maternal and infant mortality rates. This activity is expected to impact increasing public knowledge so that it is easy to find emergency symptoms for mothers and newborns so that there are no more deaths for unknown reasons. Information dissemination is carried out by utilizing sophisticated information and communication technology.

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