

Non-communicable disease prevention among the members of Pimpinan Ranting Aisyiyah in Bangunjiwo Barat

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Abstract. Non-communicable diseases continue to pose a significant health challenge, particularly in DIY, given its substantial population of productive age. Meanwhile, Ranting Aisyiyah, a part of Muhammadiyah's organization, has a potential role to prevent the diseases in the community. However, as far as we know, there has been no study evaluating the knowledge of Ranting Aisyiyah regarding this disease. Health education and screening were conducted to enhance participants knowledge and awareness. This community service found that the majority of participants had good knowledge on NCDs. However, their understanding of the associated risk factors remains deficient. Education and training for community health workers, particularly in improving knowledge and awareness of NCD risk factors, are crucial.

1 Introduction

In Indonesia, non-communicable diseases (NCD) remain a significant concern, evidenced by the high mortality rates and prevalent risk factors associated with them. In 2018, non-communicable diseases accounted for 73% of deaths, and the World Health Organization (WHO) projects this number to increase until 2025 [1]. Moreover, the prevalence of non-communicable diseases in the Special Region of Yogyakarta (DIY) in 2018 was notably high, surpassing the national average, particularly for conditions such as asthma (4.5%), cancer (4.86%), diabetes mellitus (2.4%), and hypertension (10.68%) [2].

Each year, 17 million people die from non-communicable diseases before the age of 70, with 86% of these premature deaths occurring in low- and middle-income countries [3]. It means that NCD-related deaths mostly happened in productive groups. Meanwhile, in 2022, data from the Bantul District Health Service revealed that 70% of the population in Bantul belongs to the productive age group [4]. Hence, it is crucial to prioritize the prevention of non-communicable disease in Bantul district.

Ranting Aisyiyah, a part of Muhammadiyah, is an organization that facilitates community outreach, social activities, education, and welfare programs. These branches work under the umbrella of Muhammadiyah to promote the organization's goals and principles, particularly empowering women and addressing social issues. Ranting Aisyiyah in Bangunjiwo Barat is an active organization, including in the health program. The presence of community health programs, coupled with social support, significantly enhances public awareness and understanding of non-communicable diseases (NCDs) [5]. Therefore, this community empowerment aims to enhance the role of Ranting Aisyiyah Bangunjiwo Barat

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in the prevention of NCD through health education and early detection or screening of the risk factors.

2 Methodology

Participants of this community service were 21 members of Pimpinan Ranting Aisyiyah in Bangunjiwo Barat. This community empowerment consisted of three activities: health screening and early detection of non-communicable disease (NCD) risk factors, knowledge assessment on NCD, and health education.

1.1 Health screening and early detection

Before the health education session, participants underwent health screening. They were assessed for a history of non-communicable diseases, followed by checks of their blood pressure, glucose levels, cholesterol levels, uric acid levels, and body mass index.

1.2 Knowledge assessment

To assess the participants' knowledge of non-communicable diseases (NCDs), we used a multiple-choice questionnaire consisting of five questions: characteristics of NCDs, types of NCDs, NCD risk factors, complications of NCDs, and NCD prevention. The questionnaire was developed by the team using several references. Participants then completed the questionnaire online via a shared Google Docs link. The total number of correct answers for each topic was counted and shown as a percentage.

1.3 Health education

After participating in the health screening, the participants received education from the community service team. The education was delivered directly by the team leader using PowerPoint presentations. The material covered included the definition of non-communicable diseases, types of diseases, risk factors, and prevention efforts. The session lasted for 30 minutes and aimed to increase the participants' knowledge about non-communicable disease.

3 Results and Discussion

3.1 Results



Fig. 1. Respondents of the community service

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This community service was conducted on May 17th, 2024, in Bangunjiwo, attended by 21 members of Pimpinan Ranting Aisiyiah. However, only 18 respondents completed the questionnaire on NCD knowledge. The activity included training and screening for non-communicable disease (NCD) risk factors and health education.

Table 1. Respondents' characteristics

Characteristics	Frequencies		Mean±Standard Deviation
	n	%	
Age			50.5±17.68
Gender			
Female	18	100	
Male	0	0	
Educations			
Secondary education (Senior High School)	2	11.11	
College	16	88.89	
Occupations			
Private sector employee	8	44.44	
Teacher	7	38.89	
Housewife	2	11.11	
Nurse	1	5.56	

All of the respondents were female, with an average age of 50.5 years old. The majority of participants graduated from college (80.89%). Respondents' occupation varied, but 44% worked as employees of the private sector (table 1).

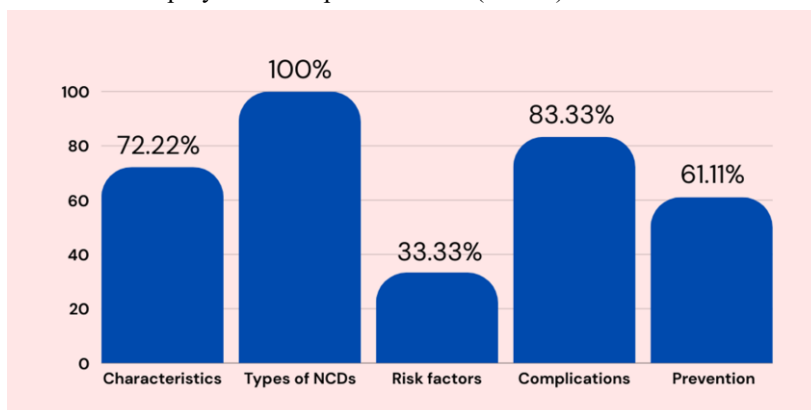


Fig. 2. Respondents knowledge of non-communicable disease

Figure 2 illustrates the percentage of respondents who answered correctly on each topic. Overall, respondents' knowledge of non-communicable disease was good. More than half of the respondents have good knowledge on the characteristics of NCD (72.22%), types of NCD (100%), its complications (83.33%), and NCD prevention (61.11%). However, only 33.33% of respondents chose the right answer regarding NCD risk factors (Fig. 2).

3.2 Discussion

This study indicated that the members of Ranting Aisiyiah had good overall knowledge of non-communicable disease (NCDs). However, more than 50% lacked knowledge about NCD risk factors; only 33.33% of respondents answered correctly regarding risk factors of NCD. A person's understanding of non-communicable diseases correlates with their educational attainment [6–8]. This aligns with the findings of our study,

indicating that the majority of participants are college graduates. Higher levels of education provide individuals with increased access to comprehensive information.

The findings of this study are consistent with prior research conducted among community health workers (CHWs) in Uganda [9]. Like the majority of CHWs in Uganda, participants in this study demonstrate a strong grasp of non-communicable diseases (NCDs), including their types and preventive measures. Nevertheless, the previous study's respondents exhibited a higher level of knowledge regarding NCD prevention compared to those in the current study.

Despite the majority of participants possessing solid knowledge of non-communicable diseases, their understanding of the associated risk factors remains deficient. Only 33.33% of participants selected the correct choices concerning these risk factors. Prior research conducted in India among a sample of lay adults similarly indicated a low level of awareness regarding the risk factors for non-communicable diseases [10]. Non-communicable diseases (NCDs) often go unnoticed as they lack the immediate attention given to infectious diseases. Their slow, persistent progression leads many to perceive them as inevitable occurrences [11]. Hence, there's a critical need to enhance education and raise public awareness regarding the risk factors associated with non-communicable diseases.

4 Conclusions

Education and training for community health workers are crucial for enhancing their roles in preventing non-communicable diseases (NCDs), particularly in improving knowledge and awareness of NCD risk factors.

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