

Peer Empowerment Strategy to Improve Thalassemia Understanding at Al Muttaqin Tasikmalaya High School: Steps Towards Prevention and Zero Thalassemia in Tasikmalaya City

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ABSTRACT

Thalassemia is a type of inherited blood disorder characterised by red blood cells (erythrocytes) that are easily damaged or have a shorter lifespan than normal blood cells, which is 120 days. This condition is passed on by parents to their children since the womb. Knowledge about Thalassemia plays a very important role in Thalassemia prevention programmes in the community. Providing education on the genetic and inherited nature of Thalassemia, as well as carrier cases in the community is essential. Knowledge about the early symptoms of Thalassemia and screening behaviour as an effort to break the chain of Thalassemia needs to be given early on as a provision for the future in deciding to choose a life partner. The purpose of community service is to empower peers as educators in improving understanding of Thalassemia and screening behaviour. This activity was given to 75 students at SMA Negeri Kota Tasikmalaya who are members of the UKS and OSIS administrators. The method used in providing education was lecture with audiovisual media. The results of providing education showed an increase in the level of knowledge of students after health education compared to before, the average pretest score was 80.77 and the average posttest score was 91.07. The provision of education is expected to continue to be carried out with interesting methods so as to increase the knowledge and efforts of adolescents in preventing thalassaemia early on.

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INTRODUCTION

Thalassemia is a type of inherited blood disorder, which is passed on from parents to their children in the womb. Thalassemia beta is a genetic disorder caused by a decrease in beta globin chain synthesis and an imbalance of alpha or beta subunit and subsequential chains (Anemia & Langer, 2023). One of the treatments performed by thalassaemia patients is lifelong blood transfusion (Dewanti et al., 2019). Data on people with thalassemia in Tasikmalaya in 2021 are 268 people (POPTI, 2021). There are three types of Thalassemia prevention, namely: primary prevention, secondary prevention, tertiary prevention. Primary prevention is done through Promotion and Educational Information Communication (Cao & Kan, 2013). Education about Thalassemia disease which is genetic in nature in the community. Efforts to break the chain of thalassemia disease in Tasikmalaya, which is a very important activity in order to achieve zero thalassemia in Tasikmalaya.

Awareness and knowledge about Thalassemia and its screening in Indonesia, especially in Tasikmalaya, is still low which has an impact on the increase in the number of people with Thalassemia in Tasikmalaya in particular and Indonesia in general (Keputusan Menteri Kesehatan Republik Indonesia, 2018). Peer education is education provided by peers who have received prior training. Peer education can be done within the scope of health through. Peer education is considered successful in increasing knowledge and interest in Thalassemia screening in Mariani's research in 2021 found a significant effect on increasing knowledge and interest in Thalassemia screening. The results of the description of the level of knowledge before peer education about Thalassemia still show that respondents do not really understand the prevention of Thalassemia (Nor et al., 2022).

The relationship between peer education on knowledge about Thalassemia trait carrier screening in health students showed a p value of 0.0001, meaning that the relationship between peer education and knowledge about Thalassemia trait carrier screening. This is in line with research with a quasi experimental method with pretest-post test group design to see differences in knowledge levels and attitudes before and after being given counselling, the results showed that the provision of counselling on Thalassemia disease and its screening proved effective in increasing knowledge about Thalassemia disease and changing respondents' attitudes towards the implementation of Thalassemia screening (Sari et al., 2024). The aforementioned research strongly emphasises that peer education has a very significant impact on increasing knowledge. This community service activity provides a solution in an effort to break the chain through empowering peers/peer groups in increasing understanding and interest in Thalassemia screening, especially in Tasikmalaya City, West Java.

AIMS

The purpose of this community service is to empower Peers as educators and increase understanding of Thalassemia and adolescent interest in screening.

METHOD

Community service activities in the form of providing education were carried out in the Hall of SMA IT Al Muttaqin Tasikmalaya City, attended by all students who are members of the Student Council and UKOS totalling 75 students. Preparation before conducting community service is to collect data in the form of interviews related to students' knowledge about thalassemia, the impact that arises if a partner has thalassmia which will affect the resulting offspring, as well as screening conducted by schools on the health status of students. After the data was collected from the interview process, the researcher made permission to conduct community service by making an invitation letter addressed to the Principal to involve students who are student council and UKS administrators in participating in educational activities about thalassemia. The education was given to students with a very interactive and communicative method based on audiovisual media, by showing videos of children with thalassemia and signs and symptoms experienced by people with thalassemia.

Educational activities in the form of delivering material related to the concept of thalassemia include: 1) definition of Thalassemia, 2) incidence of thalassemia in Indonesia, 3) signs and symptoms of children with

thalassemia, 4) management of children with thalassemia, 5) prevention efforts, 6) risk factors for thalassemia, and 7) thalassemia screening. In addition to the material, the pengabdian also socialised the use of the thalassemia application that has been made by the pengabdian team where the application can be downloaded by everyone. The thalassemia application provides easy access to thalassemia-related materials and is easy to understand accompanied by interesting pictures and videos, hopefully increasing knowledge and understanding of thalassemia. The thalassemia application is expected to provide convenience in receiving information, and students can implement the material received, so that thalassemia prevention efforts can be achieved to achieve zero thalassemia in Tasikmalaya city.

The evaluation model for this community service activity is the pretest and posttest method, to assess and measure differences in knowledge from the material provided. The pretest assessment of knowledge was carried out before the material was given by giving a knowledge form containing 20 statements about thalassemia with correct and incorrect answers. While the posttest assessment of knowledge was carried out after the provision of education with the same questions as the pretest.

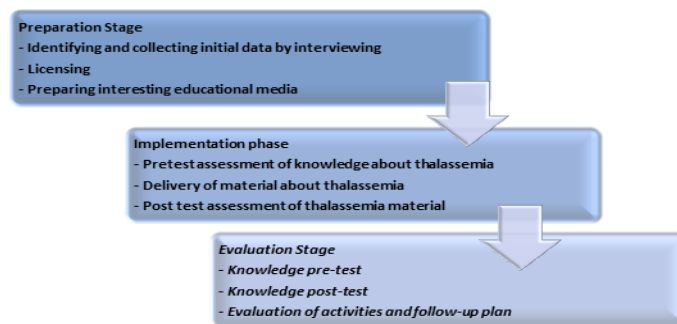


FIGURE 1. Stages of community service activities

RESULT AND DISCUSSION

Community service activities carried out with the target of SMAIT Al Mutaqin Tasikmalaya, teachers and School Health Centre officers and student council administrators. This activity is expected to improve the ability of Integrated Islamic Senior High School Al Mutaqin Tasikmalaya students, teachers, and UKS officers in an effort to break the chain through increased understanding of Thalassemia and Screening Behaviour has been carried out for 2 days on 29-30 August 2024, with 75 participants, namely class teachers, UKS coaches, UKS members and student council administrators SMAIT Al Mutaqin Tasikmalaya.

The method of implementing community service that has been carried out is by conducting health education about the concept of Thalassemia, signs and symptoms of Thalassemia, the importance of screening behaviour as an effort to prevent Thalassemia disease, the formation of Thalassemia care peer groups. Before the health education activity begins with a pre-test and after the health education is carried out, the Post Test knowledge measurement is carried out again. The results of the Pretest and Post test measurements are as follows:

TABLE 1. Statistical description before giving health education

N	Minimum	Maximum	Average
75	60	95	80,77

TABLE 1. Statistical description after giving health education

N	Minimum	Maximum	Average
75	65	100	91,07

There was an increase in the level of knowledge of students after health education compared to before, the average at pretest was 80.77 and the average at Posttest was 91.07. Students are an integral part of society and occupy a central position in the teaching and learning process. In the teaching and learning

process, students are all parties who want to achieve their goals, have goals, and hope to achieve them in the best way. This is in accordance with what said that efforts to persuade or learn to the community so that people want to take actions to maintain and improve their health (Aji et al., 2023).

Knowledge is the main key in the success of breaking the Thalassemia chain, knowledge is the provision to implement it in everyday life. In increasing this knowledge, health education is conducted to representatives of grade 1, 2 and 3 students of SMA Al Mutaqin Tasikmalaya which is in accordance with the results of research on the formation of peer groups in breaking the chain of Thalassemia, as the results that there is an effect of providing peer education on increasing health students' interest in screening behaviour (Mariani et al., 2020).

Formation of Thalassemia Care Peer Group, according to WHO, adolescents are the population in the range of 10-19 years (Singh et al., 2019). According to the Regulation of the Minister of Health of the Republic of Indonesia Number 25 of 2014, adolescents are residents in the age range of 10-18 years and according to the Population and Family Planning Agency (BKKBN) the age range of adolescents is 10-24 years and unmarried. The number of 10-19 year olds in Indonesia according to the 2010 Population Census was 43.5 million or about 18% of the total population. In the world, it is estimated that the adolescent group amounts to 1.2 billion or 18% of the world's population (Singh et al., 2019).

Adolescence is a very important, very crisis and very vulnerable period, because if humans pass through adolescence with failure, it is possible to find failure in the journey of life in the following period . Conversely, if adolescence is filled with success, productive and effective activities, it is possible that humans will get success in the journey of life in the future. In adolescence the curiosity of adolescents is at its peak and this is a positive thing to be targeted by Thalassemia Care Group, because the sense of peer group bonding in adolescents will form a positive attitude towards efforts to break the chain of Thalassemia. A Thalassemia Care Peer Group has been formed at SMAIT Al Mutaqin Tasikmalaya, whose members are also members of the UKS and OSIS administrators. With the formation of the group, it is expected to increase adolescents' awareness of the efforts to break the Thalassemia chain.

CONCLUSION

Community service activities went according to plan, there was an increase in knowledge after providing education by the service team, there was an increase in interest in screening after providing education by the service team, and the formation of peer educators from UKS members and student council administrators.

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APPENDIX



FIGURE 2. implementation of community service activities, material delivery and evaluation