



# Diabetes mellitus in society: Increasing public awareness through a social approach

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ARTICLE INFO	ABSTRACT
<p><b>Article history</b>            Received: 2023-01-10            Revised: 2023-01-16            Accepted: 2023-01-23            Published: 2023-02-20</p> <p><b>Keywords</b>            Blood glucose            Diabetes mellitus            Medical check up            Socialization</p> <p><b>Kata kunci</b>            Diabetes mellitus            Gula darah            Pemeriksaan kesehatan            Sosialisasi</p>	<p><i>Diabetes mellitus (DM) is a non-communicable disease with high morbidity and mortality. Lifestyle and knowledge are crucial factors in the handling and prevention of DM, but public awareness to obtain information is still low. This activity was carried out to increase public awareness in obtaining information and providing education related to DM. Preparation for the activity was carried out from 21 November 2022 and the core activities were in the form of outreach and health checks as a DM screening and were carried out on 24 November 2022. The main target for this activity were residents who had a family history of suffering from DM and risk factors such as obesity and hypertension. From this activity it was found that 90% had high blood pressure and 2 of them had fasting blood sugar levels above 300 mg/dL. In addition, it is known that public awareness to obtain information is still lacking.</i></p> <p><b>Diabetes mellitus di masyarakat: Meningkatkan kesadaran masyarakat melalui pendekatan sosial.</b>            Diabetes mellitus (DM) merupakan salah satu penyakit tidak menular dengan morbiditas dan mortalitas tinggi. Gaya hidup dan pengetahuan menjadi faktor krusial dalam penanganan dan pencegahan DM, namun kesadaran masyarakat untuk memperoleh informasi masih rendah. Kegiatan ini dilakukan untuk meningkatkan kesadaran masyarakat dalam memperoleh informasi dan memberikan edukasi terkait DM. Persiapan kegiatan dilakukan sejak tanggal 21 November 2022 dan kegiatan inti berupa sosialisasi dan pemeriksaan kesehatan sebagai skrining DM dan dilakukan pada tanggal 24 November 2022. Sasaran utama pada kegiatan ini adalah warga yang memiliki riwayat keluarga menderita DM dan faktor risiko seperti obesitas dan hipertensi. Dari kegiatan ini dijumpai 90% memiliki tekanan darah tinggi dan 2 orang di antaranya memiliki kadar gula darah puasa diatas 300 mg/dL. Disamping itu, diketahui bahwa kesadaran masyarakat untuk memperoleh informasi juga masih kurang.</p>

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## INTRODUCTION

Diabetes mellitus (DM) is a metabolic disorder characterized by chronic hyperglycemia (Soelistijo, 2021). DM is a non-communicable disease with a high mortality rate. The number of DM sufferers continues to increase from year to year (Kementerian Kesehatan RI., 2020). Previous studies have shown that 80% of DM sufferers live in areas or countries with

lower middle income aged 40-59 years. DM if not handled properly can cause various complications and can increase morbidity and mortality due to DM (Asmat et al., 2016; Trisnawati & Setyorogo, 2013; Wahyuningrum et al., 2020).

DM can be regulated by adopting a healthy lifestyle, if it cannot be regulated by lifestyle modifications then drug therapy is needed (Association, 2022; Webber, 2013). The main factor that influences the incidence of DM is lifestyle (Irwansyah & Kasim, 2021). Lifestyle including food preferences and physical activity will lead to the emergence of diseases or disorders that lead to an increased risk of developing DM, including dyslipidemia, obesity, and hypertension (Murtiningsih et al., 2021). Besides that, several factors influence the incidence of DM, namely smoking habits, stress management that is not optimal (Utomo et al., 2020), as well as the lack of information regarding DM among the general public (Purqoti et al., 2022).

Community knowledge or understanding of DM in particular is generally still around handling through diet, medication, and wound care but has not yet entered into how to modify lifestyle to prevent and manage DM itself (Khasanah et al., 2019). That is, education related to how to manage lifestyle to prevent DM and or make peace with DM for sufferers.

To tackle Non-Communicable Diseases (NCDs) including DM, the government has made various efforts to overcome and prevent it. Some of them are by holding the PROLANIS program (chronic disease management program). PROLANIS is a health service system and a proactive approach that is carried out in an integrated manner. One of them is PROLANIS as a forum or effort to distribute information related to PTM (Khasanah et al., 2019).

Health socialization is one of the supporters that increase the success of government programs (Sukmana et al., 2020). Health socialization can be carried out by mass organizations, as well as intellectuals from universities. The lack of public awareness of independent health checks is also one of the obstacles to delays in the delivery of information (Hardani et al., 2018; Ramatillah et al., 2022), so additional efforts need to be made, one of which is health socialization coupled with health checks. The purpose of this community service activity is to increase public awareness in seeking information and conducting early diabetes mellitus examinations. This supports the government's sustainable development program in the health sector to ensure healthy lives and promote well-being for all people of all ages.

## METHOD

The method used in this activity is active and participatory learning through the stages of socialization, checking blood pressure, and checking fasting blood sugar. The main target of this activity is the main target in this activity are residents who have a family history of DM and risk factors such as obesity and hypertension (Etika & Monalisa, 2016). This activity was carried out in Merembu Village, Labuapi District.

### Preparation

Health socialization and examination activities began with the preparatory stage, where this stage included obtaining permits and discussions with the village administration and the local auxiliary health center for targeting. After obtaining data related to the target, the head of the RT then distributes activity coupons. Preparatory activities began on November 21, 2022.

### Socialization

The socialization stage was carried out to give an overview of public understanding and awareness of DM disease. In this socialization, the community is given education related to health problems of hypertension, tuberculosis, and DM which includes understanding, the causes, symptoms, complications, and treatment to prevention of DM disease. Socialization activities and health checks will be carried out on November 24, 2022.

### Check blood pressure and check fasting blood sugar

This activity is a health screening to see in general the risk of developing DM in participants.

## RESULTS AND DISCUSSION

To support sustainable development programs in the health sector, this activity is one of the real efforts to increase public awareness. This socialization activity began with the distribution of coupons to prospective participants. The selection of potential participants was based on recommendations from the RT and village health officers. Recommendations are given based on risk factors and the family history of the prospective respondent (Etika & Monalisa, 2016).

At the time of the distribution of coupons, prospective participants were notified of an overview of the activities to be carried out. For blood sugar checks, prospective participants are advised to fast for at least 10 hours before checking blood sugar levels. This is by the SOP for checking fasting blood sugar, in which prospective patients are asked to fast 10-12 hours before checking their sugar (Andreani et al., 2018). During the activity, the respondents followed the explanations from the speakers carefully and enthusiastically. The atmosphere of the activity can be seen in Figure 1, while the atmosphere of the health check can be seen in Figure 2.



Figure 1. Health outreach activities related to Diabetes Mellitus

Education about DM can provide benefits in increasing public awareness and knowledge about DM and its symptoms and can apply the information appropriately. So that in the end, participants can become agents of information dissemination for people who have not been exposed to counseling. This is in line with the results of the service carried out by (Suhatridja, Rizka, and Liza Tantrian, 2020) which in the service carried out socialization becomes an effective means of conveying information.



Figure 2. Health Examination

From the activities carried out, there were at least 40 prospective respondents. However, in reality, only 20 people came. Confirmations made to potential participants indicated that the absence was due to a celebration event that took place simultaneously with this activity. This can be an indicator that public awareness to accept health socialization and health checks still needs to be improved.

Health examination results showed that 90% (18 out of 20 respondents) had high blood pressure and 55% (11 out of 20) had blood sugar levels above 120 mg/dL, two of them had fasting blood sugar levels above 300 mg/dL. After conducting a debriefing, it was discovered that one in 20 respondents had been diagnosed with diabetes 10 years ago and are currently still trying to adopt a healthy lifestyle. While one other person has never checked blood sugar levels but has a family history of diabetes. From this activity, it is hoped that residents will become more aware of periodic self-examination and enthusiastic about participating in health counseling from both the government and non-government.

The development of the health sector for the SDGs is highly dependent on the active role of all stakeholders, both central and regional governments, parliament, the business world, the mass media, social organizations, professional and academic organizations, development partners, and the United Nations (ITS, 2019). One of the important points that are a milestone in the achievement of programs that have been formed in the context of eradicating communicable and non-communicable diseases is public awareness in obtaining health information and services. Based on the activities we have carried out; this is still very far from expectations. This is evidenced by the small number of prospective respondents who attended (only 50%).

## CONCLUSION

From the community service activities carried out, it can be concluded that the enthusiasm of the community to take part in health counseling and health checks still needs to be improved. For the next activity, we can suggest choosing the right time so it doesn't clash with the event at the activity location. In addition to determining the activity schedule, giving souvenirs in the form of staples, pocketbooks, and examination vouchers can be suggestions for further activities to attract respondents' interest. Equally important, it is necessary to intensify health counseling or outreach to continue to spark public awareness.

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