

**HEALTH EDUCATION AND EARLY DETECTION OF NON-
COMMUNICABLE DISEASES: A PARTICIPATORY APPROACH TO
RAISING COMMUNITY AWARENESS**

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ABSTRAK

Tujuan utama dari program pengabdian masyarakat ini adalah meningkatkan kesadaran warga Desa Padangsambian Klod mengenai pentingnya deteksi dini penyakit tidak menular (PTM) dan faktor risikonya. Masalah utama yang dihadapi adalah rendahnya kesadaran kesehatan masyarakat serta terbatasnya akses terhadap layanan kesehatan preventif. Untuk mengatasi hal ini, program pendidikan kesehatan interaktif dilaksanakan dengan fokus pada promosi gaya hidup sehat dan peningkatan pengetahuan mengenai risiko PTM. Program ini juga menyediakan pemeriksaan kesehatan dasar secara gratis, meliputi pengukuran tekanan darah, kadar gula darah, dan indeks massa tubuh (IMT). Program ini berhasil melibatkan 87 peserta dari kelompok rentan seperti lansia, ibu rumah tangga, dan pekerja sektor informal, dengan 82 peserta (94%) aktif mengikuti sesi edukasi dan pemeriksaan kesehatan. Hasil pemeriksaan menunjukkan bahwa 48% peserta mengalami tekanan darah tinggi, 35% memiliki kadar gula darah tinggi, dan 52% memiliki IMT di atas batas normal. Temuan ini menunjukkan tingginya risiko PTM dalam komunitas tersebut, sehingga menegaskan pentingnya deteksi dini dan upaya pencegahan. Evaluasi pasca program menunjukkan bahwa lebih dari 90% peserta melaporkan peningkatan pemahaman mengenai manajemen risiko PTM dan pentingnya pemeriksaan kesehatan secara rutin. Sekitar 20% peserta yang tergolong berisiko tinggi mengikuti rekomendasi rujukan untuk pemeriksaan lanjutan di fasilitas kesehatan. Feedback peserta juga menunjukkan tingkat kepuasan yang tinggi (>85%) terhadap pendekatan partisipatif yang melibatkan anggota masyarakat, tenaga medis, dan relawan dalam mewujudkan hasil kesehatan yang lebih baik. Kesimpulannya, program ini efektif dalam meningkatkan kesadaran kesehatan dan mendorong perilaku proaktif di kalangan masyarakat sasaran, serta dapat menjadi model bagi program pencegahan kesehatan serupa di wilayah lain.

Kata kunci: pendidikan kesehatan, deteksi dini, partisipasi masyarakat

ABSTRACT

The main objective of this community service program was to increase awareness among residents of Padangsembian Klod Village about the importance of early detection of non-communicable diseases (NCDs) and their risk factors. The primary issue addressed was the low level of health awareness and limited access to preventive health services in the community. To tackle this, an interactive health education program was implemented, focusing on promoting healthy lifestyles and increasing knowledge of NCD risks. The program also offered free basic health screenings, including blood pressure, blood glucose, and body mass index (BMI) measurements. The program successfully engaged 87 participants from vulnerable groups, such as the elderly, housewives, and informal sector workers, with 82 individuals (94%) actively participating in both educational sessions and health screenings. Screening results indicated that 48% had elevated blood pressure, 35% had high blood sugar levels, and 52% had a BMI above the normal range. These findings highlight the significant presence of NCD risk factors in the community, underlining the urgent need for early detection and prevention efforts. Post-program evaluations showed that over 90% of participants reported an improved understanding of NCD risk management and the benefits of regular health check-ups. Approximately 20% of those identified as high-risk followed through with referral recommendations for further medical consultation. Participant feedback also indicated high satisfaction (>85%) with the participatory approach, which involved community members, medical personnel, and volunteers collaboratively working towards better health outcomes. In conclusion, this program demonstrated effectiveness in raising health awareness and encouraging proactive health behavior among the target community. It serves as a promising model for similar preventive health initiatives in other regions.

Keywords: health education, early detection, community participation

INTRODUCTION

Health is a fundamental aspect of improving the quality of life in society. However, in many areas, awareness of the importance of early disease detection remains relatively low (Adini et al., 2019). Many individuals seek medical treatment only when a disease has reached an advanced stage, reducing recovery opportunities and increasing the economic burden on families and healthcare systems. Observations from the service location show that poor health education and inability to routinely check one's health are identified as the root causes of late disease detection. Thus, the community service program emphasizes

health education and early detection of diseases as a prevention method to improve public well-being (Setyawati et al., 2024).

The target of this program should be the general population, especially the more vulnerable groups, which include the elderly, housewives, and informal sector employees who do not have a very good opportunity to get health services. This program will make it its prime priority to bring awareness on the risk factors involved with non-communicable diseases, such as hypertension, diabetes, and heart disease through counseling and basic health check-ups. Selection of this priority is based on health data indicating that non-communicable diseases are currently the leading causes of morbidity and mortality in Indonesia (Mboi et al., 2022). The program also focuses more on promotive and preventive efforts that will be more sustainable and have wide impacts on the community.

The conceptual framework for this program is hinged on preventive health theories, which indicate the use of primary prevention as a way of reducing disease incidence (AbdulRaheem, 2023). According to the work of Mohammadi et al., (2023), education-based interventions have the potential to increase knowledge and bring about changes in public health behavior. The HBM is also applicable to the present program since it emphasizes risk perception and benefits that influence the individual's decisions in undergoing health check-ups (Park et al., 2021). This program is thus proposed as a two-way approach by including both the educational aspects along with direct health services for value addition.

A number of similar programs have been very successfully conducted in different regions. For example, studies have established that community-based health education programs improve the level of awareness and compliance by the public to attend periodic health check-ups (Li et al., 2022). Other programs in different areas have also used simple screening methods for early detection of risk factors (Facciola et al., 2021). However, the low participation of the community due to

misunderstanding and lack of time is the challenge in implementing such programs. This program, therefore, uses a more interactive and community-based approach in facilitating active public involvement on this matter.

By giving this health education and early detection of diseases, the community is expected to be more proactive regarding health maintenance and to realize the significance of check-ups. The Program will be offering free check-ups and will serve both in the short term and encourage sustainable healthy behaviors. Synergy between academics, medical personnel, and community members leads to this project being a prototype for many regions in improving the quality of health for the general public.

METDHOS

This activity of community service was done as a promotive and preventive intervention via health education and early detection of non-communicable diseases (NCDs) in Padangsambian Klod Village, Denpasar, Bali. The activity was participatory and implemented for one day with direct participation of the community people in all the planning, implementation, and evaluation process.

The initiative began with coordination among stakeholders, including village officials, the public health center at the village level (puskesmas), scholars, and hospital staff. The team created study materials suitable to the needs and profile of the target community and arranged medical devices for basic health screenings, including blood pressure monitoring equipment, glucose monitoring equipment, and body mass index (BMI) monitors.

In the course of implementation on the day, the activity started with a session of health education that was held in the community hall (balai banjar). The session involved interactive lectures, small group discussion, and educational video showings on healthy living and the

importance of early detection of risk factors for hypertension, diabetes, and heart diseases. Materials were delivered in simple and understandable terms in a communicative and culturally appropriate manner.

Following the education session, the participants were subjected to basic health screening by medical officers aided by student volunteers. The participant had instant feedback on their health status and was provided with explanations of their status, including follow-up advice in case of high risk for NCDs. High-risk individuals were referred to nearby health centers for further testing.

As part of ongoing health education, a personal health record booklet was provided to all participants to note down their test results and follow-up on suggested lifestyle changes. Initial evaluation was done through participant satisfaction survey and follow-up monitoring of those who accepted medical referrals. Evaluation results serve as the foundation for improving such future programs.

RESULTS AND DISCUSSION

In Padangsembian Klod Village, the program reached 87 participants, with screenings revealing that 50% had hypertension and 33% showed elevated blood glucose levels, supporting the importance of early detection among vulnerable groups. The applied methods raised public awareness about NCDs and the importance of early detection. The number of participants attending all health education sessions was 87, demonstrating strong community interest. Health screenings revealed that 48% had high blood pressure, 35% had elevated blood sugar levels, and 52% had a BMI above the normal range. These findings confirm the need for continued health monitoring and preventive interventions in the community.

Community involvement was evident during the entire program, with local leaders, healthcare workers, and volunteers assisting in

conducting the sessions. The interactive approach in the educational sessions encouraged discussions and sharing of knowledge, hence a better understanding by the participants. Moreover, the presence of health professionals ensured accurate health assessments and proper guidance according to the test results. The acceptance of discussion and follow-up of health recommendations by the community is a positive indicator of change in health awareness and behavior.

The post-program evaluation showed that over 90% of participants expressed satisfaction with the educational sessions and health screenings. Many participants reported increased awareness of non-communicable disease (NCD) risk factors and expressed intentions to adopt healthier lifestyles.

Regarding follow-up actions, approximately 20% of high-risk individuals complied with referral recommendations and visited local healthcare facilities for further examination and treatment. To sustain the program's impact, a follow-up plan has been proposed involving periodic health education, refresher sessions, and continued collaboration with local health centers to monitor participants' health status.

Implications are that the success of this initiative might indicate avenues to follow up on, such as regular health screening programs and integrating health education into local community activities. The impacts of the program underline the importance of cooperation among medical professionals, academics, and the local community in pursuit of sustainable health practices. The expansion to other villages, addition of digital tools for health monitoring, and inclusion of local governments in long-term public health strategies are some of the possible future plans. Documenting what worked and did not in this implementation would help refine similar programs for future scaling up in terms of increased reach and effectiveness.



Fig 1. implemented program
(source: Author, 2025)

CONCLUSION

The positive impacts of the health education and early disease detection program conducted at Padangsembian Klod Village have been observed in raising awareness among the communities with regard to risk factors for non-communicable diseases and the need for early detection. The program engaged 87 participants from vulnerable groups, with 82 individuals (94%) actively participating in both health education sessions and health screenings. This high level of involvement indicates strong community interest and acceptance of the program.

Post-education surveys showed that over 90% of participants reported improved understanding of non-communicable disease (NCD) risk factors and the importance of early detection through regular health check-ups. Health screenings revealed that 48% had high blood pressure, 35% had elevated blood sugar levels, and 52% had a BMI above the normal range, underscoring the need for targeted interventions.

Approximately 20% of participants identified as high-risk followed the referral recommendations and sought further medical consultation at local health facilities. Participant feedback indicated strong satisfaction, with more than 85% appreciating the participatory and community-based

approach, which helped them feel actively involved and motivated to adopt healthier lifestyles.

The participatory approach, involving community members, medical professionals, and volunteers, thus successfully educated participants about NCD risk management and appropriate health screenings, supported by effective follow-up advice. This outcome aligns with previous research highlighting the value of interactive, community-centered programs in promoting sustainable health behavior changes. It has, in turn, made many of the participants aware of their health status; the high-risk cases have been advised to continue seeking consultations at nearby healthcare facilities. The program does also open the door for future development of perhaps an integration with digital health monitoring tools and the possible release of routine screening programs in other villages.

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