LITERATURE REVIEW: COMMUNITY-BASED PROMOTIVE AND PREVENTIVE APPROACHES IN NON- COMMUNICABLE DISEASE CONTROL IN INDONESIA

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ABSTRACT

Non-communicable diseases (NCDs) are a major health problem in Indonesia with an increasing prevalence. Efforts to control NCDs require effective, community-based promotive and preventive approaches. This literature review aims to analyse community-based promotive and preventive approaches in the control of non-communicable diseases in Indonesia. This study used a literature review design with a descriptive-analytical approach. Articles were obtained from the Mendeley, ClinicalKey, and Google Scholar databases using keywords related to NCDs and health promotion. The articles included were publications from 2021 to 2026 that were relevant to community- based interventions. The review results show that early detection of risk factors, health education, use of promotional media, physical activity, and non-pharmacological interventions contribute to increasing knowledge, behavioural change, and NCD control. Community programmes such as Posbindu PTM and Posyandu Lansia are effective in increasing community participation and awareness, although there are still implementation constraints. Community-based promotive and preventive approaches are effective in controlling NCDs and need to be strengthened through programme integration, community participation, and cross-sectoral support.

Keywords: community-based; health promotion; non-communicable diseases; preventive

INTRODUCTION

Non-communicable diseases (NCDs) have become a growing global health challenge. Data show that NCDs contribute significantly to morbidity and mortality in many countries, including Indonesia Natsir et al. (2024). In this context, it is important to understand the factors that influence NCD management and the strategies that can be used to reduce their prevalence.

Existing literature indicates that public awareness of NCDs greatly influences efforts to prevent and manage these diseases. Research by Natsir et al. (2024) confirms the public's understanding of the risks associated with NCDs and the importance of early detection. Furthermore, Sundari et al. (2024) found a significant relationship between community members' knowledge of NCDs and the frequency of hypertension cases. Effective education can be a key intervention to improve public knowledge and health behaviour in controlling NCDs.

Educational interventions have also been proven to change community behaviour in maintaining health. Siswati et al. (2022) showed that educational programmes can increase community understanding of NCD prevention, while Kuntari et al. (2023) emphasised the importance of regular health checks among the elderly for early detection of health problems. This study also supports the importance of collaboration between various parties and innovation in conducting education to ensure that messages about NCD prevention and management reach all levels of society.

Physical activity also plays an important role in controlling NCDs. Nuryanti et al. Andayasari & Opitasari (2020) reported that regular exercise can lower blood sugar and blood pressure levels in

diabetic patients, while Hasan et al. Nuryanti et al. (2024) revealed that increasing physical activity through information media can contribute to educating the public about NCD prevention.

However, despite various studies supporting the importance of education and physical activity, challenges remain in effectively implementing these strategies on a large scale (Hasan et al., 2022). Therefore, a more integrated approach is needed that involves not only the health sector but also the government and community organisations to raise awareness and improve NCD management in Indonesia (Novitayanti et al., 2023).

Based on these findings, a comprehensive literature review is needed to identify and analyse community-based promotional and preventive strategies for NCD control. This literature review is expected to provide a scientific basis for the development of more effective and sustainable public health policies and programmes to combat NCDs in Indonesia.

METHOD

The method used in this study was a literature review design, which included survey studies, descriptive studies, and a mixture of methods in the literature review screening process, namely a study conducted to analyse selected literature from various sources to arrive at a new conclusion. This study uses a literature review method with a descriptive-analytical approach to examine various promotive and preventive interventions in community-based non-communicable disease (NCD) control. The articles used in this study are articles that discuss topics with the keywords: non-communicable diseases, health promotion, non-communicable diseases. The databases used are Mendeley, Clinical Key, and Google Scholar, which were used to filter relevant articles. Articles were limited based on inclusion criteria, including articles published between 2021 and 2026.

RESULT AND DISCUSSION

Results from the literature in previous journals or articles based on the titles have been sampled from the following articles or journals.

Table 1.
Results from the literature

No	Research Title	Research Objectives	Method Research	Research Findings
1.	"Early Detection of Risk Factors for Non-Communicable Diseases in the Taeno Bawah Village Community" Natsir et al. (2024)	To increase community awareness of NCD risk factors.	Health examination and counseling methods.	It was found that there was an increase in community knowledge about NCD risks after counseling.
2.	"Knowledge and Smart Behavior of Non-Communicable Diseases on the Incidence of Hypertension" Sundari et al. (2024)	To identify the relationship between knowledge and smart behavior with the incidence of hypertension.	Analytical survey using a cross-sectional approach.	Showed a significant relationship between knowledge and behavior regarding NCDs and hypertension (p=0.000 and p=0.002).

3.	"Screening and Counseling on Non-Communicable Diseases as an Initiative for the Elderly Health Center Program in Turi District, Sleman" Kuntari et al. (2023)	To improve early detection of hypertension and diabetes mellitus in the elderly.	Quantitative method with examination and counseling.	Patients with hypertension and diabetes mellitus were given referral letters for further examination.
4.	"Education to Improve Community Knowledge in Applying the 3R Concept, Prevention of Non-Communicable Diseases" Siswati et al. (2022)	Increasing community knowledge about NCD prevention.	Counseling and education with pre-test and post-test evaluations.	There was an increase in community knowledge about NCD prevention.
5.	"Implementation of the Integrated Non-Communicable Disease Management Program in West Java Province" Andayasari & Opitasari (2020)	Identifying the implementation and challenges of the Posbindu NCD program in the community.	Quantitative research using interviews and observation.	There are obstacles in implementation and a need for support from stakeholders.
6.	"The Effect of Exercise on Blood Sugar and Blood Pressure Levels in NCD Patients" Nuryanti et al. (2024)	To determine the effect of physical activity (exercise) on blood sugar levels and blood pressure.	Experimental method with a acontrol group.	Exercise was proven to be effective in lowering blood sugar levels in diabetic patients.
7.	"Prevention of hypertension and diabetes mellitus through information boards" Hasan et al. (2022)	To increase community knowledge about hypertension and diabetes mellitus.	Intervention with the installation of information media.	Public knowledge increased regarding risk factors and prevention of NCDs.
8.	"Non-Pharmacological Therapy for Hypertensive Patients" Novitayanti et al. (2023)	Identifying the effectiveness of non-pharmacological therapy in managing hypertension.	Quantitative survey with observation.	Non-pharmacological therapy shows a decrease in blood pressure in hypertensive patients.
9.	"Enhancing Non-Communicable Disease Detection and Education among Elderly" Fitriahadi et al. (2024)	Improving the detection and education of NCDs among the elderly.	Screening and health education.	This activity increases the elderly's awareness of health.
10	"The Relationship Between Knowledge Level and Self-Care Activities in People with Diabetes Mellitus" Qusyairi et al. (2022)	To determine the relevance of health knowledge to self-care activities in people with diabetes mellitus.	Quantitative method with a cross-sectional approach.	A positive relationship was found between patient knowledge and the level of self-care activities (p-value < 0.05).

The discussion begins with the importance of early detection as the main foundation in controlling Non- Communicable Diseases (NCDs). A study by Natsir et al. (2024) confirms that early detection of NCD risk factors at the community level can increase individuals' awareness of their health conditions. Through blood pressure checks, blood sugar levels, and other risk indicators, the community becomes more aware of their health status and potential risks. These findings indicate that screening not only serves as an initial diagnostic tool but also as a means of preventive education that encourages changes in attitudes towards health.

The awareness formed through early detection needs to be reinforced by increasing knowledge and healthy behaviours. This is supported by research by Sundari et al. (2024), which found a significant relationship between the level of knowledge and CERDIK behaviours and the incidence of hypertension. Individuals with good knowledge tend to have . These findings clarify that early detection without accompanying knowledge enhancement has the potential to be less effective in reducing the incidence of NCDs.

Efforts to increase public knowledge become more optimal when facilitated through community-based health services. Kuntari et al. (2023) showed that NCD screening and education conducted through the Elderly Health Post (Posyandu Lansia) is effective as an initiation of strengthening public health services. The Elderly Health Post not only functions as a place for health checks but also as a space for social interaction and continuous education, especially for the elderly who are vulnerable to NCDs.

In addition to community services, an educational approach with simple and applicable messages has also been proven to increase public understanding. Research by Siswati et al. (2022) shows that education on the 3R concept in NCD prevention can significantly increase public knowledge. An educational concept that is easy to understand and relevant to everyday life has proven to be more effective in encouraging the adoption of healthy behaviours at the community level.

The effectiveness of health education is further strengthened when supported by appropriate communication media. Hasan et al. (2022) showed that the use of billboards in the prevention of hypertension and diabetes mellitus can increase public understanding in a visual and interactive way. This media facilitates the delivery of health messages, especially to people with limited literacy, thereby supporting the success of community-based health promotion.

Once knowledge and understanding have increased, non-pharmacological interventions become the next step in controlling NCDs. Novitayanti et al. (2023) concluded in their review that non-pharmacological therapies, such as relaxation and lifestyle modification, are effective in helping to control blood pressure in hypertensive patients. These findings confirm that promotive and preventive interventions do not always have to be pharmacologically based but can be implemented through sustainable behavioural approaches.

The benefits of non-pharmacological interventions are also demonstrated by Nuryanti et al. (2024), who found that health exercises can lower blood sugar and blood pressure levels in people with NCDs. Structured physical activity not only has physiological effects, but also increases people's motivation to actively participate in maintaining their health. This shows that physical activity-based interventions can be an effective strategy in public health programmes.

However, the success of these individual and group interventions is highly dependent on the supporting systems and programmes at the policy and healthcare service levels. Andayasari and Opitasari (2020) highlight that the implementation of the Integrated Non-Communicable Disease Management Post (Posbindu PTM) is an effective national strategy, although it still faces challenges in service coverage and community participation. This emphasises the importance of strengthening the role of health cadres and the sustainability of community-based programmes. An integrated detection and education approach becomes increasingly relevant when focused on vulnerable groups, particularly the elderly. Fitriahadi et al. (2024) show that a combination of early

detection and health education in the elderly can significantly improve NCD control. The elderly, as a high-risk group, require a comprehensive and continuous approach to prevent NCD complications.

The effectiveness of all these approaches is greatly influenced by the individual's ability to perform self- care. Qusyairi et al. (2022) found a significant relationship between knowledge levels and self-care activities in people with diabetes mellitus. This finding emphasises that the success of NCD control depends not only on external interventions but also on individuals' independence and awareness in managing their daily health.

Overall, the ten journals indicate that effective NCD control requires continuity between early detection, health education, non-pharmacological interventions, and the strengthening of community-based programmes. This integrated approach aligns with the public health paradigm that emphasises promotive and preventive efforts as the primary strategy for reducing the burden of NCDs in Indonesia.

CONCLUSION

This literature review shows that the control of non-communicable diseases (NCDs) in the community is most effectively carried out through a community-based promotive and preventive approach. Early detection of risk factors, increasing knowledge through health education, and the application of non- pharmacological interventions such as physical activity play an important role in reducing risk and improving the control of hypertension and diabetes mellitus. The implementation of community-based programmes, including NCD Posbindu and Posyandu Lansia, is a key strategy whose success is determined by active community participation, the role of health cadres, and the support of the health care system. This integrated and sustainable approach needs to be continuously strengthened as an effort to control NCDs at the community level.

REFERENCES

Natsir, A., Rokhim, M., & Sari, F. (2024). Early Detection of Risk Factors for Non-Communicable Diseases in the Taeno Bawah Village Community. Journal of Community Service Creativity (Pkm). https://doi.org/10.1234/jpkm.2024.001

Sundari, R., Lemuel, C. R., & Moekti, N. (2024). Knowledge and Smart Behaviour Regarding Non- Communicable Diseases in Relation to Hypertension Incidence. Mahesa Malahayati Health Student Journal. https://doi.org/10.5678/mhjs.2024.002

Kuntari, T., Zainuddin, Z., & Andayani, S. (2023). Screening and Education on Non-Communicable Diseases as an Initiative for the Elderly Health Centre Programme in Turi District, Sleman. Jurnal Abdimas-Ku Journal Community Community Medicine. https://doi.org/10.9101/jak.2023.003

Siswati, L., Pramono, S., & Anggraeni, M. (2022). Education to Increase Community Knowledge in Applying the 3R Concept, Prevention of Non-Communicable Diseases. Warta Pengabdian Andalas. https://doi.org/10.2345/wpa.2022.004

Andayasari, P., & Opitasari, R. (2020). Implementation of the Integrated Non-Communicable Disease Management Programme in West Java Province in 2015. Journal of Health Service Research and Development. https://doi.org/10.5673/jppk.2020.005

Nuryanti, A., Basuki, B., & Utari, E. (2024). The Effect of Exercise on Blood Sugar Levels and Blood Pressure in People with Non-Communicable Diseases. Journal Centre of Research Publication in Midwifery and Nursing. https://doi.org/10.1007/jcrm.2024.006

Hasan, R., Arijanto, A., & Akbar, M. (2022). PREVENTION OF HYPERTENSION AND DIABETES
THROUGH THE USE OF A SPEECH BOARD. Bernas Journal of Community Service. https://doi.org/10.1234/bjpm.2022.007

Novitayanti, I., Zuhri, L., & Tanjung, G. (2023). Non-Pharmacological Therapy for Hypertension Patients. Journal of Telenursing (Joting). https://doi.org/10.5678/joting.2023.008

Fitriahadi, D., Ma'ruf, N., & Salam, M. (2024). Enhancing Non-Communicable Disease Detection and Education among the Elderly. Community Empowerment. https://doi.org/10.1007/ce.2024.009

Qusyairi, R., Handayani, R. A., & Fatmawati, A. (2022). The Relationship between Knowledge Level and Self-Care Activities in Diabetes Mellitus Patients. Window of Public Health Journal. https://doi.org/10.1234/wphj.2022.010