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Intervention Capacity Analysis Health Promotion Of Non-Communicable Diseases In Tasikmalaya City

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Abstract
Non-communicable diseases (NCDs) are one of the leading causes of death in Indonesia, including in Tasikmalaya city, with an increasing prevalence. This study aims to analyze the capacity of health promotion interventions in the prevention and control of NCDs in Tasikmalaya city. The methodology used was a cross-sectional survey involving 31 health promotion program managers at puskesmas. Data were collected through a 2010 WHO capacity mapping instrument questionnaire, with eight domains of health promotion capacity. The results showed that the average capacity of health promotion interventions was at developmental level C, meaning that the program had begun to be implemented, but its impact could not yet be clearly assessed. There was a significant shortfall in the number of human resources trained specifically for NCD health promotion, as well as low budget allocations. The variation in respondents' ratings suggests the need for better evaluation and monitoring of the program's effectiveness. Based on these findings, the study recommends improving HR training, developing more targeted policies, increasing financing, and strengthening collaboration with various stakeholders. With these measures, it is hoped that efforts to prevent and control NCDs in Tasikmalaya City can be more effective and sustainable, thereby reducing the burden of disease in the community

INTRODUCTION

Non-communicable diseases (NCDs) are still the leading cause of death and represent an increasing public health crisis worldwide. In the last three years, recorded cases of death from NCDs have continued to increase, in a year it could reach 41 million or 74% of the world's population (Kemenkes RI, 2023). or almost four times the deaths from infectious diseases, maternal, perinatal and nutritional problems. Each year, NCDs kill 15 million people between the ages of 30 and 70. The global burden of NCDs is expected to increase by 17% by 2025 (WHO, 2018).

Non-communicable diseases (NCDs) are a major health problem worldwide and in Indonesia. Major non-communicable diseases such as cardiovascular disease, diabetes mellitus, cancer, and chronic obstructive pulmonary disease are very high in Indonesia. Stroke prevalence increased from 7‰ to 10.9‰, cancer prevalence increased from 1.4‰ to 1.8‰, diabetes mellitus prevalence increased from 6.9% to 8.5%, hypertension increased from 25.8% to 34.1%. (Ministry of Health, 2019). Based on WHO data in 2022, in Indonesia the prevalence rate of non-communicable diseases (NCDs) is 69.91% and the mortality rate due to NCDs is 66% (Hanifah, et.al, 2022). NCDs also absorb

the highest financing for BPJS Health, namely heart disease, kidney failure, and cancer.5 The increase in NCDs in Indonesia requires adequate prevention and control policies and programs.

NCD prevention and control programs should match the burden of the problem in the community. Indonesia, with its vast territory and diverse socio-culture and risks, has a varied NCD disease burden and requires appropriate prevention and control efforts. NCD prevention and control programs have become a national policy that must be implemented from the central, provincial and district/city levels.

Health problems in Indonesia have a triple burden disease, namely the existence of New Emerging and Re-Emerging Infectious Diseases such as Covid 19, then the existence of Infectious diseases has not been resolved properly and Non-Communicable Diseases (NCDs) tend to increase every year. As a result, the portion of Indonesia's health expenditure still focuses on curative efforts and NCDs are the main cause of the burden of disease. Much of this burden can be reduced by shifting the management of NCDs from a focus on curative interventions to health promotion strategies to address the risk factors that drive the growth of NCDs (WHO, 2018; Marmut and Bell, 2019). Evidence from Europe and the Americas shows that NCDs have been reduced by implementing effective health promotion strategies for NCD prevention and control (Puska et al., 2009; WHO, 2018).

Failure to address the four behavioral risk factors of tobacco use, unhealthy diet, physical inactivity and harmful alcohol use and to address the social determinants of health, such as access to a clean and safe environment, universal healthcare, universal education and employment, is key to NCD prevention (WHO, 2018; Marmot and Bell, 2019). Indicators of NCD risk behaviors include dietary consumption, lack of vegetable and fruit consumption, smoking and tobacco use, physical inactivity and alcohol consumption (Riskesdas, 2018).

Early detection and control of risk factors through the implementation of health promotion strategies in the form of behavior change to implement a healthy lifestyle (GERMAS) is absolutely necessary to prevent the occurrence of NCDs as the most common cause of death. Capacity analysis and mapping is done to provide a baseline measure, in some cases providing benchmarks that can be used to plan improvements. According to Aluttis et al.

Based on the above, Mapping the capacity of health promotion for NCDs to examine the existing level of knowledge, skills, commitment, systems, structures and leadership of health promotion in Tasikmalaya City for health-promoting interventions including policies and strategies at the organizational and community level, and integrated into existing structures to prevent non-communicable diseases in Tasikmalaya City using a survey of key informants.

The health promotion intervention capacity mapping study aims to describe the capacity and health promotion interventions carried out to overcome the occurrence of non-communicable diseases in Tasikmalaya City.

METHOD

The research method was carried out using a cross-sectional study, which is by observing at the same time in individuals from the population under study, in assessing the capacity and health promotion interventions for non-communicable diseases. The research was conducted in the Tasikmalaya city area from November to December 2024. The study population was the managers of health promotion programs in the Tasikmalaya city area. The sample selection was done by total sampling which amounted to 31 respondents.

The research instrument used was the 2010 World Health Organization (WHO) capacity mapping instrument, to assess health promotion capacity using eight health promotion capacity domains, namely policies and plans, Policies and plans for health promotion, Core expertise in health promotion, Collaborative mechanisms in governance, program implementation, Partnerships, professional development, information systems, and health promotion financing.

Primary data collection obtained from questionnaires filled out by respondents themselves (self-administered quesionaire). The data collected was then processed and analyzed by preparing a cross table. Domain scores were converted to values and averaged to obtain the mean of the results. To assess the variation and consistency of the data, standard deviation was also calculated.

Table 1:
Scoring system: score range, stage of development and
Stage of development definition

Score range	Level of development	Stage of development	Definition
5.5–6.0	A	Fully implemented	This means that the activities are already well underway and working well for all Health Promotion priorities at the national level, and evaluation and monitoring evidence is available.
4.5–5.49	B	Partially implemented	This means that the activity has been partially operational and is now operational for some, or all of the national Health Promotion priorities, and there is evaluation and monitoring evidence available.
3.5–4.49	C	Act	This means that work has started but it is too early to assess its impact or outputs at the national level, and there is no current evaluation and monitoring evidence.
2.5–3.49	D	In development	This means that there is a commitment at the national level to implement these activities, and efforts are being made to develop them.
1.5–2.49	E	Under consideration	This means that the activity is being considered for implementation, but no firm commitment has been given.
1.0–1.49	F	Currently not followed up	This means that the activity is not considered or rejected for implementation at this level.

RESULTS AND DISCUSSION

1. NCD Health Promotion Interventions

The results of the study on health promotion interventions conducted for the prevention and control of non-communicable diseases in Tasikmalaya City can be seen in the table below:

Table 4.2
Non-communicable Disease Health Promotion Interventions
in Tasikmalaya City

No	Indikator	Mean	SD	Tingkat Perkemb
1	Non-communicable disease health promotion plan	5.32	0.48	B
2	Has an education program on non-communicable diseases been implemented in the community?	5.65	0.49	A
3	Are there health promotion staff trained in NCDs?	2.29	1.90	D
4	Are there any intervention studies or health promotion research, especially NCD health promotion?	1.97	1.43	E
	TOTAL	3.81	1.95	C

Health promotion interventions are activities carried out as an effort to prevent and control non-communicable diseases. Indicators assessed include health promotion plans, implementation of educational programs, training of human resources (HR), and intervention studies. Based on the results of the analysis, it is known that the average total intervention shows a mean value of 3.81 with a standard deviation of 1.95 and is in the C category. This shows that health promotion interventions for non-communicable diseases in Tasikmalaya City have been carried out but their impact cannot be clearly assessed. The variation in respondents' assessments as a result of the high standard deviation suggests that there are different views on the effectiveness and implementation of the intervention.

From these results, the indicator that gets the highest score is the education program on non-communicable diseases has been implemented in the community, getting the highest mean value, which is 5.65 with a standard deviation of 0.49, and falls into category A. This shows that the education program has been well implemented and is considered effective in increasing public awareness about non-communicable diseases and can contribute to reducing the incidence of these diseases.

The indicator of the health promotion plan for non-communicable diseases with a mean value of 5.32 and a standard deviation of 0.48, which falls into category B. This indicates that the health promotion plan for non-communicable diseases in Tasikmalaya City has been well developed and provides sufficient direction and clear objectives for program implementation.

Analysis of the health promotion human resource indicators shows that there is an inadequate number of human resources trained in NCD health promotion (mean 2.29) and high variation (SD 1.90). Likewise, intervention studies have a very low mean value (1.97) with a fairly high variation (1.43). This shows that there is still a lack of human resource development, research and intervention studies in health promotion especially for non-communicable diseases. Lack of training and intervention studies may result in a lack of knowledge and skills required to implement the program effectively.

This is in accordance with the research of Al-Riyami, Pursell, and Gabhainn (2022), which states that the lack of specific training on health promotion among health professionals indicates a gap in education and training programs that can increase capacity for effective health promotion. according to Nutbeam (1998), effective interventions must include education, HR training, and research to measure the impact of the implemented program, and WHO (2013). states that the success of health promotion programs depends heavily on HR training and research that supports interventions.

2. NCD Health Promotion Capacity

Table 4.2
Non-communicable Disease Health Promotion Capacity in Tasikmalaya City

No	Indikator	Mean	SD	Tingkat Perkemb
1	Policies and plans related to health promotion	4.63	0.20	B
2	Core expertise in health promotion	1.18	0.45	F
3	Collaborative mechanism for health promotion implementation	3.76	1.01	C
4	Implementation of Health Promotion Program	4.57	0.61	B
5	Partnership of health promotion activities	4.19	0.86	C
6	Professional development	2.66	1.06	D
7	Information System	5	0	B
8	Health Promotion Financing	2.13	1.66	E
	TOTAL	3.52	1.37	C

Health promotion capacity assessment indicators included health promotion policies and plans, core expertise, collaborative mechanisms, program implementation, partnerships, professional development, information systems, and financing.

The average capacity of health promotion in Tasikmalaya City is at development level C, which indicates that health promotion programs have begun to be implemented, but are not yet optimal and their impact cannot be effectively assessed. This is reflected in the average capacity score of 3.52 with a standard deviation of 1.37. There was considerable variation in the assessment of health promotion capacity. This means that respondents have diverse views on the effectiveness and success of health promotion programs. This variation could be due to the characteristics of the respondents that cause differences in experience, knowledge, or access to information about health promotion programs in the community.

The results of the analysis of health promotion capacity indicators, it is known that there are indicators that are categorized as good although partially running (category B), namely health promotion policies and plans (average 4.63 with SD 0.20), implementation of health promotion programs (average 4.57 with SD 0.61) and information systems (average 5). Although categorized as good, researchers could not confirm whether there was evidence of evaluation and monitoring. The NCD control program is only limited to screening once a month through Posyandu activities. This is due to the limited budget and limited staff of only 1 person per health center and the absence of

functional health promotion personnel. According to WHO (2013), strong and well-planned policies are an important foundation for the success of health promotion programs. Clear and targeted policies can increase the effectiveness of public health interventions.

The results of the analysis of collaborative mechanisms and partnerships were found to be at development level C, meaning that collaborative activities and partnerships have begun to be carried out, but it is too early to assess their impact and there is no evidence of evaluation and monitoring. Collaborative mechanisms (mean 3.76, SD 1.01) and partnerships (mean 4.19, SD 0.86) in the implementation of health promotion were rated fairly well by respondents, but there was variability in respondents' ratings. The high variability indicates that there are different views on the effectiveness of collaboration and partnerships. This is due to the lack of coordination and effective communication with stakeholders. Better cooperation between various stakeholders to continuously evaluate and improve in order to achieve more optimal and effective results in improving public health.

According to Smith et al. (2020), stated that many collaborative programs in health promotion have failed due to lack of coordination and effective communication. Effective collaboration between various stakeholders can improve public health outcomes (Broussard et al. 2018).

The professional development indicator, which includes support from the health office in training, education, and availability of health promoters, falls into category D with a mean score of 2.66 and SD of 1.06. This indicates that there is a commitment to implement these activities, but there is still a lack of development, especially in the form of education and training support for health promoters. The availability of adequate health promoters is critical to the success of health promotion programs. At the time of this study in Tasikmalaya City, only 1 person had the functional position of health promoter and the rest had other professions that acted as health promoters, although a professional association for health promoters had been formed since 2018. This condition results in a lack of skills and knowledge needed to effectively implement health promotion programs. This is consistent with Nutbeam, D. (2000) and Green, L. W., & Kreuter, M. W. (2005), who state that support from the health department in the form of training and education is essential to improve the skills of health promoters, which in turn will contribute to the effectiveness of health promotion programs.

The indicator of health promotion financing, as measured by the health promotion budget, showed a very low mean value of 2.13 with category E. This indicates that respondents felt that the budget allocation for health promotion was very inadequate. Low financing can hinder the implementation of effective health promotion programs, not well organized, unable to achieve the desired targets, both in terms of reach and quality. Limited budgets can result in a lack of resources for campaigns, educational materials, and other important activities to increase public awareness. According to WHO (2010), adequate financing is one of the key factors in the success of health promotion programs, because without sufficient financial support, programs cannot be implemented effectively.

The core indicator of health promotion expertise, which includes the presence or absence of a separate health promotion unit, intervention studies, and publication of intervention studies, showed a very low mean value of 1.18 and SD of 0.45, indicating consistency in respondents' assessment that expertise in health promotion is very lacking and tends not to be considered for implementation (category F). From the interviews, it was found that the health promotion unit is in the form of a coordinator under the health services sector and is not a separate unit. The existence of a separate health promotion unit is very important to coordinate and implement health promotion programs. Without a clear unit, health promotion efforts can be undirected and less effective. In accordance with the opinion of Wiggins et al. (2016), a separate health promotion unit can be more effective in involving various stakeholders, including the community, in program planning and implementation. This is important to ensure that the programs implemented are relevant and in line with the needs of the community.

CONCLUSIONS AND RECOMMENDATIONS

NCD health promotion interventions showed a mean score of 3.81 and a standard deviation of 1.95 with a category of C, meaning the program has begun to be implemented but its impact cannot yet be clearly assessed. Health Promotion Capacity is at development level C with a mean score of 3.52. Although there are some indicators that show good results, such as health promotion policies and plans, program implementation, and information systems, the core indicator of health promotion

expertise shows a very low score (1.18), indicating that expertise in health promotion is still lacking and not seriously considered.

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To improve NCD health promotion interventions, a sustainable certified training program should be developed to increase the credibility and competence of health promoters in implementing health promotion programs, with a focus on non-communicable diseases.

To improve the capacity of non-communicable disease health promotion, stronger partnerships should be built with various stakeholders, a separate and independent health promotion unit should be established in each health center, increased budget allocation, ensuring that health promotion policies and plans are implemented consistently and evaluated regularly to assess their effectiveness, and improved education and training, especially for functional health promotion personnel.

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