



Volume 16 Nomor 1 (2026) 34-39

JURNAL KEBIDANAN

p-ISSN: 2089-7669 ; e-ISSN: 2621-2870

<https://doi.org/10.31983/jkb.v16i1.14004>



Relationship of Knowledge and Attitude with Family Behavior in Early Detection of Non Communicable Diseases

Erna Widyastuti^{*1}, Ngadiyono¹,

¹*Department of Midwifery, Poltekkes Kemenkes Semarang, Indonesia*
Jl. Tirto Agung Pedalangan Banyumanik, Semarang, Jawa Tengah, Indonesia

Corresponding author: Erna Widyastuti
Email: widyastuti310@gmail.com

Received: October 21, 2025; Revised: December 2, 2025; Accepted: March 30, 2026

ABSTRACT

One of the problems in health development is the shift in patterns from infectious diseases to non-communicable diseases (NCDs). This has an impact on the productivity of daily activities. According to WHO, NCDs account for 63% of annual deaths. Riskesdas data from 2013 to 2018 saw an increase in the incidence of diabetes 8.5%, hypertension 34.1%, and smoking 9.1%. The purpose of this study is to determine the relationship between knowledge and attitudes with early detection behavior for NCD risk. The type of research is analytical observational with a cross sectional design. The total sample was 60 respondents, knowledge and attitudes were measured with questionnaire instrument and using chi square for data analysis. The results of this research, there were relationship between attitudes ($p\text{-value}=0.006$) and knowledge ($p\text{-value}=0.029$) on family behavior in early detection of NCD risk. The majority of respondents' attitudes are negative, good knowledge and good support. There is a relationship between attitudes and knowledge on family behavior in early detection of NCD risk.

Keywords: Attitudes; Family Behavior of Detection of NCD risk; Knowledge

Introduction

Noncommunicable diseases (NCDs) are diseases that cannot be transmitted from person to person and develop slowly over a long time (chronic). The main types of NCDs are cardiovascular diseases (such as heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes [15]. In the early stages, NCDs are often asymptomatic; many people do not know and do not recognize if they have NCDs. This makes the awareness for self-monitoring or early detection less. As a result, many people are only examined when complications of NCDs occur, which can even lead to early death. The shift in disease patterns from infectious to non-communicable diseases is a major health problem. These diseases reduce productivity and daily activities. According to the WHO, NCDs are the world's leading cause of death, accounting for 63% of annual deaths. NCDs kill more than 36 million people annually. Cardiovascular disease accounts for the most NCD deaths (17.3 million), followed by cancer (7.6 million), respiratory diseases (4.2 million), and diabetes (1.3 million). These four disease groups account for about 80% of all NCD deaths. Non-communicable diseases are those that can't spread from person to person. There are four main types: cardiovascular disease, cancer, chronic respiratory disease, and diabetes. How people live has changed their attitudes and behavior around diet, smoking, alcohol, and drugs, so there are more patients with degenerative diseases (diseases due to decreased organ function), and they're a threat to life [1].

Based on Riskesdas data 2018 The prevalence of high blood pressure in adults (≥ 18 years) rose from 25.8% in 2013 to 34.1% in 2018, Obesity in adults (≥ 18 years) also increased, with the proportion of obese individuals rising from 14.8% in 2013 to 21.8% in 2018, Smoking The prevalence of smoking among adolescents (10-18 years) continued to climb, increasing from 7.2% in 2013 to 9.1% in 2018 and Diabetes Mellitus 8.5%[14]. Human behavior has hurt the environment so much that it's no longer hospitable for humans. This increases the number of chronic lung disease patients, who often die. Different carcinogenic chemicals, environmental conditions, and human behavior can cause many cancers. As a result of human behavior, the environment is exploited to such an extent that it becomes inhospitable to human life, increasing the number of chronic lung diseases that often end in death. Various carcinogenic chemicals, environmental conditions, and human behavior can also trigger various types of cancer [2].

Non-communicable diseases have become a tough group of diseases to define, with some cancers, like those of the cervix, stomach, and liver, being infectious in origin. Four behaviors tobacco use, alcohol consumption, poor diet, and physical inactivity are risk factors and associated with four major non-communicable diseases (cardiovascular disease, cancer, chronic respiratory diseases, and diabetes). These diseases account for 80% of deaths from the non-communicable disease group [1].

Noncommunicable diseases result from a combination of non-modifiable and modifiable risk factors. Risk factors that an individual cannot modify are age, gender, and genetics. Modifiable risk factors are those that can be changed through individual awareness and social intervention [3]. The high incidence and mortality of NCDs make them important to control. Early detection and appropriate treatment improve NCDs control. Surveillance of NCD cases and risk factors is a strategy for prevention, appropriate and integrated control by the government, private sector, and the community [4]. The high incidence and mortality of NCDs make them important to control. Early detection and appropriate treatment improve NCD control. Surveillance of NCD cases and risk factors is a strategy for prevention, appropriate and integrated control by the government, private sector, and the community [3]. The incidence of NCDs is increasing every day.

Behavior changed to implement healthy lifestyles is essential to prevent NCDs. Early detection, risk factor control, health monitoring, and regular medication are necessary to prevent NCDs from becoming the leading cause of death. Noncommunicable diseases themselves are caused by various factors, such as smoking, unhealthy diet or nutrition, minimal physical activity, and consumption of alcoholic beverages. In addition, family health history can also be a trigger for noncommunicable diseases. Thus, this study aims to determine the relationship between knowledge and attitudes with early detection behavior for NCDs risk.

Methods

This research is a quantitative approach with an analytical observational research type with a cross-sectional design. The population consisted of 60 people, and used total sampling. Respondent characteristics consist of age, education, occupation, distance to health facilities. Variables in this study are Knowledge, attitude, and family behavior were measured using a questionnaire. Statistical tests used Chi-Square Test ($p < 0.05$). This ethical feasibility test was carried out by the KEPK Poltekkes Kemenkes Semarang No. 1353/EA/KEPK/2023.

Results and Discussion

Table 1.
Frequency Distribution of Respondent Characteristics

Respondent Characteristics	N	%
Age		
Early adulthood	16	26.7
Late adulthood	17	28.3
Elderly age	27	45.0

Total	60	100
Education		
Elementary education	43	71.7
Secondary education	16	26.7
Higher education	1	1.7
Occupation		
Not working	31	51.7
Working	29	48.3
Distance to health facility		
Far away	6	10.0
Near	54	90.0
Attitude		
Negative	35	58.3
Positive	25	41.7
Knowledge		
Good	34	56.7
Enough	23	38.3
Less	3	5.0
Family Behavior in Early Detection		
Good	33	55.0
Less	27	45.0

At present, non-communicable diseases (NCDs) not only occur in the elderly, however, according to research analysis conducted by [5] Le et al. 2022 in Vietnam, the majority of non-communicable diseases currently occur in the productive age group, namely those aged 18 years and above. The most common cause is poor lifestyle, such as starting to smoke cigarettes, both passive and active smoking, excessive alcohol consumption, and others. The Vietnamese Government is intensifying early education, especially for people living in remote and mountainous areas, through both promotion and prevention efforts, utilizing various communication media and other media.

Most of the respondents were older and had good behavior towards early detection of NCD risks, which is in line with the research conducted by Ida, which found that the age variable had the potential to increase respondents behavior towards early detection. The more mature the age, the more mature the thought patterns regarding early detection of NCD risks. Early detection of non-communicable disease risk (NCD's) can be done at Integrated Non-Communicable Disease service posts or better known as Posbindu PTM.

Integrated Non-Communicable Disease Development Post or Posbindu PTM is a public health program that focuses on early detection and monitoring of risk factors for non-communicable diseases such as diabetes, hypertension, and heart disease in people aged 15 years and above. Based on previous research by Imat states that the results of the study show that the average intention score of the community to visit the Integrated Non-Communicable Disease Development Post (Posbindu PTM) among respondents with a basic education level (72.05%) is lower than that of the secondary education level (75.74%) and the higher education level (74.25%). This may occur because the level of education influences the community's awareness in utilizing the Integrated Non-Communicable Disease Development Post (Posbindu PTM) health facilities to address health issues. In this study, it was also found that for the higher education level, although not significant, the intention to visit the Integrated Posbindu PTM is indeed lower compared to those with a secondary education level. This happens because most of the highly educated individuals are office workers, thus they tend to utilize higher health facilities such as community health centers and other health services compared to examinations at the Integrated Non-Communicable Disease Development Post (Posbindu PTM) as well as the busyness of being office workers who find it difficult to come during the implementation of the Integrated Non-Communicable Disease Development Post (Posbindu PTM) on weekdays [6].

Table 2.**Bivariate Analysis of the Correlation between Attitudes and Family Behavior in Early Detection of NCD Risk**

Attitude	Family Behavior in Early Detection NCD						P Value
	Good		Less		Total		
	f	%	f	%	f	%	
Negative	14	40.0	21	60.0	35	100	0.006
Positive	19	76.0	6	24.0	25	100	

Based on Table 2, the results show that respondents who have negative attitudes tend to be less good in early detection behavior of non-communicable diseases by their families, while respondents with positive attitudes are more likely to be good in early detection behavior of non-communicable diseases by their families. The results of the chi-square test showed that the p value was 0.006, which means there is a correlation between attitudes and family behavior in early detection of NCD risk.

A study obtained results from the research test processed using the Chi-square formula which showed that the p Value is 0.376 or “p value > α (0.05)” which means there is no significant relationship between the respondents' attitudes and visits to the elderly posbindu in Bojong Indah Village. According to the research results, the majority of the elderly have a good attitude towards visiting the elderly posbindu. However, due to a lack of knowledge, lack of family support, and support from cadres, the elderly tend to not visit the elderly posbindu [7]. This is not in line with research that found that attitude is related to a person's behavior in the early detection of NCD risk. In this study, respondents with negative attitudes tend to behave poorly towards the early detection of NCD risk. This may be due to the lack of attention of these respondents regarding the early detection of NCD risk.

Table 3.**Bivariate Analysis of the Correlation between Knowledge and Family Behavior in Early Detection of NCD Risk**

Knowledge	Family Behavior in Early Detection NCDs						P Value
	Good		Less		Total		
	f	%	f	%	f	%	
Good	23	67.6	11	32.4	34	100	0.029
Enogh	10	43.5	13	56.5	23	100	
Less	0	0	3	100	3	100	

Based on table 3, the results show that respondents with good knowledge tend to be better at early detection of non-communicable diseases by their families. The results of the chi square test showed p value is 0.029, which means that there is a correlation between knowledge and family behavior in early detection of NCD risk. A study obtained results showing respondents knowledge through the Chi-Square test with a p-value of 0.010 which means there is a relationship between knowledge and the utilization of the NCD Posbindu in the working area of the Setiabudi Health Center in South Jakarta City. An Odds Ratio (OR) value of 2.553 was obtained, meaning that respondents with high knowledge have 2.553 times the chance of actively utilizing the NCD Posbindu compared to respondents with lower knowledge in utilizing the NCD Posbindu. Lawrence Green's theory explains that poor knowledge about the NCD Posbindu tends to result in poor practice in visiting the Posbindu. The cause of low knowledge among respondents in this study is due to respondents not understanding who the target of the Posbindu is and the benefits of having a Posbindu. On average, respondents answered that the target of the Posbindu is the

community aged 20 years and above and the benefits of having a Posbindu are not only to identify the risk factors for NCDs but also to receive treatment [8]. This is in line with this study which found that there is a relationship between knowledge and early detection behavior of NCD risk. This is evidenced by respondents who have good knowledge also having good behavior towards the early detection of NCD risk. Good knowledge leads to good behavior because the cognitive abilities of respondents, which are also manifested in daily behavior, have a positive impact on the behavior of those individuals, including in the early detection of this non-communicable disease risk.

The results of the study indicate that non-communicable diseases are closely related to environmental factors, particularly behavioral ones. There are four main behavioral factors that influence non-communicable diseases: smoking, excessive alcohol consumption, poor diet, and lack of physical activity [2]. According to Sandra's [11] research there is not significant correlation between knowledge with the utilization of Posbindu PTM, the correlation between attitude with the utilization of Posbindu PTM and family support with utilization of posbindu PTM. Julismawati [12] research showed that 77 people (70%) visited Posbindu PTM, 57 people had poor knowledge (57%), and 53 people (53%) did not have family support. And hope that the public will be more active in increasing visits to Posbindu PTM so as to increase efforts for early detection and monitoring of PTM risks which can reduce the incidence of PTM. Family behavior based on knowledge is easier to implement, for example implementing diet and managing disease, Positive family attitudes towards chronic diseases such as hypertension and diabetes encourage early detection behavior and better disease management [13][14]. Another study found that improving behavior is the most effective NCD prevention strategy because it reduces the risk of NCDs. This can be achieved by optimizing health promotion through continuous education and community empowerment [15]. One approach is to utilize community health center cadres [9]. The research is in line with Sujarwoto research, showed that participation in CBHIs was associated with a higher likelihood of NCD screenings in Indonesia. These results highlighted the important role of the community in preventing NCDs. However, these results should be cautiously interpreted as the proportion of respondents attending the CBHIs was quite low (3%), and most of the attendants were older people and women. Thus, policymakers and health practitioners must design programs attractive to the younger population and men as they have a higher risk of premature deaths due to NCDs. Furthermore, the study provides a unique insight into that NCDs' prevention should provide an "enabling" environment, including better healthcare access and health promotion, which assists people in choosing and maintaining healthy lifestyles [16].

Conclusion

Many respondents still have a negative attitude toward preventing non-communicable diseases, which makes up 58,3%, but the most family behaviors in early detection NCDs were categorized as good at 55%. Even so there is a relationship between attitude and knowledge towards family behavior in the early detection of non-communicable diseases risk. We hope that the community will keep taking part in Posbindu activities to detect there's a risk of non-communicable diseases (NCDs) and Improving health education and counseling for families of NCD patients to improve knowledge and attitudes.

Acknowledgements

We would like to express our gratitude to all of our partisipants. We cannot mention each of you individually, but know that we appreciate your participation.

References

- [1] Kemenkes RI. (2017) Buku Pedoman Pencegahan Penyakit Tidak Menular. Jakarta.
- [2] Warganegara, E & Nur, Nida (2016) 'Faktor Risiko Perilaku Penyakit Tidak Menular', *Majority*, 5(2), pp. 88–94. Available at: <http://joke.kedokteran.unila.ac.id/index.php/majority/article/view/1082>.

- [3] Alifariki, L. O. (2015) 'Analisis Faktor Determinan Proksi Kejadian Hipertensi di Poliklinik Interna BLUD RSUD Provinsi Sulawesi Tenggara', *Medula*, 3(1), pp. 214–223
- [4] Umayana, Haniek Try & Cahyati, W. H. (2019) 'Dukungan Keluarga dan Tokoh Masyarakat terhadap Keaktifan Penduduk ke Posbindu PTM', *Jurnal Kesehatan Masyarakat*, 11(1), pp. 96–101.
- [5] Indriyawati *et al.* (2018) 'Skrining dan Pendampingan Penyakit Tidak Menular di Masyarakat', *Jurusan Keperawatan LINK*, 14(1), pp. 50–54. doi: DOI: <https://doi.org/10.31983/link.v14i1.3287>.
- [6] Rochimat, I. (2022) 'Hubungan Tingkat Pendidikan dengan Intention (Niat Perilaku) Masyarakat Untuk Berkunjung Ke Posbindu PTM dalam Rangka Deteksi Dini Faktor Risiko Penyakit Tidak Menular di Kota Tasikmalaya', *Media Informasi*, 18(1), pp. 33–36. doi: 10.37160/bmi.v18i1.6.
- [7] Rachmah Wati, H., Syari, W. and Khodijah Parinduri, S. (2023) 'Faktor-Faktor yang Berhubungan dengan Kunjungan POSBINDU Lansia di Desa Bojong Indah Tahun 2020', *Promotor*, 6(2), pp. 95–99. doi: 10.32832/pro.v6i2.205.
- [8] Sari, D. W. R. and Savitri, M. (2018) 'Faktor-Faktor yang berhubungan dengan Pemanfaatan POSBINDU Penyakit Tidak Menular (PTM) di Wilayah Kerja Puskesmas Kecamatan Setiabudi Kota Jakarta Selatan Tahun 2018', *Jurnal Kebijakan Kesehatan Indonesia : JKKI*, 7(2), pp. 49–56. Available at: <https://journal.ugm.ac.id/jkki/article/view/36849>.
- [9] Rafiah dan Karima (2020) 'Pembentukan Pos Edukasi PTM (Penyakit Tidak Menular) di Puskesmas Cikurur', *Ikraith Abdimas*, 3(3), pp.91–96
- [10] Duha, S., Utami, T. N. and Rifai, A. (2022) 'Analisis Faktor Yang Memengaruhi Minat Berkunjung Masyarakat Ke Pos Pembinaan Terpadu Penyakit Tidak Menular Di UPTD Puskesmas Lahusa Kecamatan Lahusa Kabupaten Nias Selatan', *Jurnal Kesmas Prima Indonesia*, 3(2), pp. 52–61. doi: 10.34012/jkpi.v3i2.2056.
- [11] Sandra, PN dan Kusumaningrum (2018). Pengetahuan, Sikap, dan Dukungan Keluarga tentang Pemanfaatan Posbindu Penyakit Tidak Menular di Kretek Bantul., *Jurnal Surya Medika*, Volume 13. No. 2 Juli 2018 DOI:10.32504/sm.v13i2.98
- [12] Julismawati, Hastuty, M. Riani. (2025). Gambaran Pengetahuan dan Dukungan Keluarga Tentang Kunjungan Posbindu Penyakit Tidak Menular Masyarakat Desa Pulau Sarak Wilayah Kerja Puskesmas Air Tiris. *Jurnal Ilmiah Ilmu Kesehatan*. Vol.3 No.2
- [13] Mulia M dan Mayangsari H (2025).Peningkatan Pengetahuan Pencegahan, Pengendalian Penyakit Hipertensi dan Diabetes Melitus pada Masyarakat.Jurnal Pengabdian Masyarakat Bunda Delima Volume 4, Nomor 2. <https://jpenmas.bundadelima.ac.id/index.php/jpmbd> <https://doi.org/10.59030/jpmbd.v4i2.85>
- [14] Kemenkes RI Riskesdas, 2018. Prevalence of Non-Communicable Diseases Increases.
- [15] WHO (2024). Non Communicable Diseases.
- [16] Sujarwoto and Maharani A. 2022. Participation in Community-based Healthcare Interventions and Non-communicable Diseases Early Detection of General Population in Indonesia. *SSM -Population Health*. Vol 9. <https://doi.org/10.1016/j.ssmph.2022.101236>