Indonesian Journal of Global Health Research
Volume 6 Number S6, December 2024
e-ISSN 2715-1972; p-ISSN 2714-9749
http://jurnal.globalhealthsciencegroup.com/index.php/IJGHR

ANALYSIS OF THE DEMOGRAPHIC STATUS OF DIABETES MELLITUS PATIENTS IN PARTICIPATION IN THE NON-COMMUNICABLE DISEASE MANAGEMENT PROGRAM

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ABSTRACT
NCD (Non-Communicable Diseases) activities support the proactive management of DM. This activity includes medical consultation, group education, home visits and health screenings for participants, and health education and counselling. Diabetes can be controlled using serious attention from all parties to improve the patient's quality of life. So, NCDs (Non-communicable diseases) effectively improve the status of patient self-health maintenance. Objective to analyse the demographic status of diabetic Mellitus patients using the NCD (Non-Communicable Disease) Management program at the Nagrak Health Center, Cianjur Regency Correlative descriptive research method with a cross-sectional approach. A sample of 330 patients was taken using the random stratified sampling technique conducted in September 2023. The demographic status of the age group is related to the p-value (<0.001) on the level of utilisation of NCD (Non-Communicable Diseases) services in the Working Area of the Nagrak Health Center, Cianjur Regency by obtaining from 307 respondents with productive age to pre-elderly (37-59 years), there are 218 people (71%) whose utilisation rate of prolanis services is high, while from 23 respondents with elderly age up to high-risk elderly (60-80 years old), there are seven people (30.4%) whose utilisation rate of NCD (Non-Communicable Diseases) services. Factors affecting the coverage of participation of patients with diabetes mellitus in the NCD (Non-Communicable Disease) program are age and gender.

Keywords: community health center; demographic; diabetes mellitus; non-communicable disease

How to cite (in APA style)
Haryanto, R. D., Rohayani, L., & Zahra, A. P. (2024). Analysis of the Demographic Status of Diabetes Mellitus Patients in Participation in the Non-Communicable Disease Management Program. Indonesian Journal of Global Health Research, 6(S6), 1061-1066. https://doi.org/10.37287/ijghr.v6iS6.4739.

INTRODUCTION

Indonesia ranks fifth in the world, or two places higher than IDF data in 2023, which ranks seventh in the world with 7.6 million people with diabetes and is in the second most position in the Southeast Asian region. Based on basic health research data from 2020, there has been an increase in the national prevalence of diabetes mellitus from 1.1% in 2007 to 2.1% in 2013 (Kementerian Kesehatan Republik Indonesia, 2013). The incidence of diabetes mellitus in Indonesia in 2019 was 9,116 cases (IDF, 2016). Based on data from the 2016 Regency/City Health Profile in West Java province, diabetes mellitus ranked second with 18.33% of the incidence rate. Details of the incidence of diabetes in West Java province in 2019 non-insulin diabetics reached 15,464 people, in 2015 12,115 people, and in 2019 15,250 people, where the number shows an increase in the number of sufferers every year (Dinas Kesehatan Jawa Barat, 2019). This will affect the high cost of health services. (Dewan Jaminan Sosial Nasional & BPJS Kesehatan, 2019)

NCD (Non-Communicable Diseases) activities support the proactive management of DM. These activities include medical consultations, group education, home visits, health screenings for participants, and health education and counselling. Diabetes can be controlled by serious attention from all parties to improve the patient's quality of life (PERKENI, 2011).

So, NCDs (Non-communicable diseases) effectively improve the status of patient self-health maintenance (Dewi et al., 2022). The role of the health centre as a first-level facility in implementing the NCD program as a medium in realising public health efforts (UKM) and individual health efforts (UKP) with promotive and preventive efforts in their work areas to maximise the achievement of public health degrees (Peraturan Menteri Kesehatan Republik Indonesia Nomor 75, 2014). The functions of SMEs and UKPs must be balanced to achieve the maximum degree of public health. Individual health efforts with the JKN program that everyone follows are insufficient to raise public health (Kementerian Kesehatan Republik Indonesia, 2016). The results of a preliminary study in the assisted area of the Nagrak Health Center in Cianjur Regency found that only 30 participants from the NCD (Non-Communicable Diseases) Program were included in the membership NCD (Non-Communicable Diseases) out of a total population of 315 patients, meaning that only about 9.5% were members and active in NCD services. This study aims to analyse the demographic status of diabetes mellitus patients using the NCD (Non-Communicable Disease) Management program at the Nagrak Health Center, Cianjur Regency.

METHOD

Correlative descriptive research method with a cross-sectional approach. Sampling in this study used random stratified sampling, carried out in September 2023. Sampling is based on inclusion criteria, including: 1)DM patients of the Nagrak Health Center, Cianjur Regency, who are recorded with medical records, 2)DM patients who are registered and not registered for the NCD program, 3)have good physical and communication skills. The number of samples used was 330 patients. The test of results was analysed using statistical software with a chi-square test. The instrument used was a questionnaire with seven components, namely respondent identity, utilization of the NCD program, knowledge, officer role, family support, pain perspective, and need perspective that had been tested for validity with a product-moment correlation of r = 0.416, as well as a reliability value with Cronbach's alpha test of 0.378.

RESULT

The respondents who participated in the study were 40-49 years old, as many as 154 people (46.7%); the youngest was 37 years old, and the oldest was 80 years old. Most of them are female, as many as 236 people (71.5%), and the most educated are high school, as many as 157 people (47.6%) (Table 1).

Table 1.
Respondent characteristics (n= 330)

Characteristic	Category	(n=330)	%
Age	30-39 years old	2	0,6
	40-49 years old	154	46,7
	50-59 years old	151	45,8
	60-69 years old	13	3,9
	70-79 years old	8	2,4
	80 years	2	0,6
Age Group	productive age-pre-elderly <59	307	93
	high-risk seniors >60	23	7
Gender	Man	94	28,5
	Woman	236	71,5
Education	Academy/Undergraduate	34	10,3
	Intermediate	157	47,6
	Primary education	139	42,1

In this study, it was found that based on the characteristics of the respondents, the age group with the level of utilisation of NCD (Non-Communicable Diseases) services in the Working

Area of the Nagrak Health Center, Cianjur Regency was obtained from 307 respondents with productive age to pre-elderly (37-59 years old), there were 218 people (71%) who had a high level of utilisation of prolanis services, while from 23 respondents with elderly age to high-risk elderly (60-80 years), there are seven people (30.4%) whose utilisation rate of NCD (Non-Communicable Diseases) services is high. The results of *the chi-square test* between the age group and the level of utilisation of NCD (Non-Communicable Disease) services (p-*value* <0.001) showed that there was a significant relationship between age and the level of utilisation of NCD (Non-Communicable Disease) program services at the Nagrak Health Center, Cianjur Regency, *Odds Ratio* (OR) of 5.5 which means that respondents who have a productive age up to pre-elderly (37-59 years) have a 5.5 times higher chance of using NCD (Non-Communicable Diseases) services in the working area of the Nagrak Health Center of Cianjur Regency compared to respondents who are elderly and high-risk elderly.

Table 1.
Relationship between Characteristics of Diabetes Mellitus Patients (n=330)

Characteristics Responden	Category	Utilization of Prolanis Services		Total	*p-value*	OR (95%CI)
		Tall	Low			
		f (%)	f (%)			
Age	Productive-Pre-Elderly	218 (71)	89 (29)	307	<0,001	5,5
	Anxiety-Anxiety Remains	7 (30,4)	16 (69,6)	23		(2,2-14)
Gender	Man	60 (63,8)	34 (36,2)	94	0,347	0
	Woman	165 (69,9)	71 (30,1)	236		
Education	Academy/Bachelor	25 (73,5)	9 (26,5)	34	0,573	0
	Intermediate	105 (66,9)	52 (33,1)	157		
	Basis	95 (68,3)	44 (31,7)	139		

*Uji Chi-Square

The results of the analysis of the relationship between respondent characteristics based on gender and the level of utilisation of NCD (Non-Communicable Disease) services in the work area of the Nagrak Health Center, Cianjur Regency, were obtained from 94 male respondents, were 60 people (63.8%) whose NCD (Non-Communicable Disease) service utilisation rate was high, while of the 71 female respondents, there were 165 people (69.9%) whose NCD service utilisation rate (Non-Communicable Diseases) infectious) high. The results of *the chi-square test* between sex and the level of utilisation of NCD (Non-Communicable Disease) services (p-value 0.347) showed that there was no significant relationship between gender and the level of utilisation of NCD (Non-Communicable Disease) services in the working area of the Nagrak Health Center, Cianjur Regency.

The results of the analysis of the relationship between respondent characteristics based on education level and the level of utilisation of NCD (Non-Communicable Disease) services in the work area of the Nagrak Health Center, Cianjur Regency, were obtained from 34 respondents with academy/undergraduate education, there were 25 people (76.5%) whose level of utilisation of NCD (Non-Communicable Disease) services was high. In comparison, of 157 respondents with secondary education, there were 105 people (66.9%) whose level of utilisation of NCD services (Non-Communicable Diseases) Contagious) is high, while of the 139 respondents with basic education, there are 95 people (68.3%) whose utilisation rate of NCD (Non-Communicable Diseases) services is high. The results of *the chi-square test* between the level of education and the level of utilisation of NCD (Non-Communicable Diseases) services (p-value 5.373) showed that there was no significant relationship between the level of education and the level of utilisation of NCD (Non-Communicable Diseases) services in the working area of the Nagrak Health Center, Cianjur Regency.

DISCUSSION

The use of health services is the use of health service facilities provided either in the form of outpatient care, inpatient care, home visits by health workers or other forms of activities from the use of these services (Arifa, 2018). The use of health services is influenced by predisposing factors, enabling factors, and factors of a person's need for health services. Predisposing factors include demographic factors (age and gender), social structure (education, occupation, ethnicity), social networks, social interaction, and culture), and health beliefs (Basith & Prameswari, 2020). The age variable in this study was found to have a significant relationship ($p<0.05$). This supports that the use of health services is widely accessed by the elderly because they need health services for the healing of diseases as researched by Ridzkyanto, (2020) with a significance value of $p<0.05$.

The elderly as a population at risk, need to be considered in the provision of health services. The characteristics of risks experienced by the elderly are biological risks such as age, social and environmental risks, as well as behavioral or lifestyle risks (Kiik et al., 2018). A person will experience a decrease in physical or cognitive abilities if they have entered the age of the elderly, so the tendency in the elderly will increasingly need health services (Irawan & Ainy, 2018). Then the productive age is also found to have many access to health services, this is because the productive age group tends to get the risk of disease from work and immunity (Rahmayanti & Ariguntar, 2017). In line with the research of Mustofa et al., (2022) it was found that the majority of the ages who access health services are productive age and pre-elderly $p=0.027$. The productive age is reported because of the increasing age, the demand for access to health services is increasing, supported by more freedom of activity (Sari & Budiono, 2021).

In the knowledge dimension, a person's level of knowledge is not only determined based on formal education but also based on information obtained, experience, and socio-economics (Ginting et al., 2020). Supported by the research of Handayani et al., 2020) that a good literacy level ($p<0.05$) will encourage a person to use health services. The results of this study are corroborated in Iswardini & Husniyawati, (2023) knowledge of the use of health services affects the blood pressure condition of hypertensive patients ($P=0.002$). However, in terms of educational status, there was no relationship ($0.573>0.05$). It is corroborated in the research of Mustafidah & Indriwati, (2021) which reported that there is no relationship between education and the use of health services ($p=0.415>0.05$), because higher education will have an impact on better thinking in processing information so that it can influence decisions in the use of health services. Likewise, in the report Hidana et al., (2018) which reported that there was no meaningful relationship between knowledge and the use of health services ($p=0.376>0.05$).

In addition, there is no relationship between gender characteristics in this study, this is because gender does not have a tendency to be responsive in receiving health information so that it cannot influence decisions in the use of health services (Stiyawan & Ainy, 2023). Sukeni et al., (2021) reported that women are indeed more likely to access health services, because this is based on the tendency to be responsive in receiving health information so that it can influence decisions in the use of health services, on the other hand due to sufficient free time. However, in this study, it was found that there was no relationship between gender and the use of health services, which was strengthened in a qualitative study by Majaj et al., (2013), explaining that the decision making of health service utilization can be triggered by local culture that is more deferred from treatment to modern service facilities and prefers traditional treatment at home. Based on the research of Maulany et al., (2021) there is no relationship between gender and health service utilization due to socio-cultural beliefs and

practices that affect decisions in seeking access to appropriate health services.

The services of the NCD (Non-Communicable Diseases) program at the Nagrak Health Center in Cianjur Regency have not been able to reach the target, due to the non-compliance of participants in participating in the activities of the NCD (Non-Communicable Diseases) program every month twice. The results of the research conducted by Rosdiana et al., (2017) show that the implementation of NCDs (Non-Communicable Diseases) in the Halmahera Health Center has not reached the 75% indicator due to communication that has not gone well, lack of place and funds, positive disposition towards Prolanis, and there is no Operational Procedure Unit that has been booked. Another research conducted by Sitompul, *et.al.* (2016) showed that only five doctors had a Prolanis club out of 18 family doctors in Pekalongan. Of the five Prolanis activities, only four have been carried out, namely health counseling, health checks, Prolanis gymnastics and drug administration. This happens due to limited human resources and funds.

CONCLUSION

Factors that affect the coverage of participation of patients with diabetes mellitus in the NCD (Non-Communicable Disease) program are age. The factor that does not affect is gender.

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