
Health Examination Through the Posbindu Program (Integrated Development Post) in Efforts to Prevent Non-communicable Diseases

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Abstract

Untransmuted diseases is still a challenge for the health world. It is usually found in advanced stages, so it is difficult to heal and end with a disability or premature death. POSBINDU (Integrated coaching post) is an activity that covers the age group of 15-59 years. According to the description of village midwife, POSBINDU activities in Pringtulis Village have never been done before. This activity is conducted by health centres Nalumsari in cooperation with KKN UNNES 2019 and village devices. This activity aims to obtain health data and improve the participation of the community in the prevention and early discovery of risk factors PTM, especially in the village Pringtulis. The method used is a direct check equipped with a check sheet. The system used is dwelling place and door to door. Stages of activity implementation POSBINDU, among others, measurement anthropometry (BB, TB, abdominal circumference), blood pressure checking, vision and hearing tests, blood sugar screening. and cholesterol, and interviews on the history of the disease are not transmitted either family or self, and the habits done. This activity was carried out throughout, starting at the Dukuh Gajihan. This Program is done 1 time a month. The objective of this activity is the entire community of Pringtulis village.

Key words: *examination, contagious disease, Posbindu.*

INTRODUCTION

Non-communicable diseases (NCDs) are one of the leading causes of death in the world (Coates et al., 2020). NCDs are chronic diseases that are not transmitted from person to person (Hadian M et al, 2021). Non-communicable diseases (NCDs) are one of the causes of death in the world, Indonesia is one of the countries that face problems both infectious diseases and Non-Communicable Diseases (NCDs) (Rahayu et al., 2021). NCDs include heart disease, stroke, cancer, diabetes, and Chronic Obstructive Pulmonary Disease (COPD) (Russell et al., 2019). NCDs show an increasing trend over time (Purnamasari et al., 2020). This NCD usually appears without symptoms and does not show any specific clinical signs, so most people are not aware of the dangers of these non-communicable diseases (Rahaningmas et al., 2023). According to the results of Basic Health Research (Riskesdas) in 2007, 2013, and 2018, there is a tendency to increase the prevalence of NCDs such as diabetes, hypertension, stroke, and joint diseases / rheumatism / gout (Mukhlisah & Irfan, 2023). NCDs can be triggered by various risk factors, namely, genetic, lifestyle to physiological factors (Koukios & Sacio-Szymańska, 2021). Influential lifestyle factors are smoking, alcohol consumption, consumption of unhealthy foods, lack of physical activity, overweight, and obesity (Yuningrum et al., 2021). This lifestyle can cause physiological changes in the body such as high blood pressure, high blood sugar, and high blood fats that have the potential to cause NCDs (Aryani & Arwina Wake, 2023).

Based on Basic Health Research Data (Riskesdas) in 2018 shows that the prevalence of smoking nationally is 24.3%, the prevalence of people with high blood pressure is 34.11%, the prevalence of obesity (Body Mass Index or BMI $\geq 25 - 27$ and BMI ≥ 27) in the population aged ≥ 15 years is 35.4%, while obese residents with BMI ≥ 27 alone are 21.8% (Rahman et al., 2021). The number of NCD cases in Central Java based on the results of the recapitulation of new case data reported as a whole in 2017 was 1,599,931 cases with the 2 highest cases, namely hypertension and diabetes mellitus (DM) (Putri et al., 2020). In 2018 there was a fairly high increase to 2,412,297 cases. Hypertension and DM are still the 2 highest cases (Aliyah, 2020). These two diseases are the first priority for NCD control in Central Java (Fauziah et al., 2020).

Based on the health profile of Jepara Regency in 2015, the proportion of new NCD cases is hypertension (57.7%), diabetes mellitus (DM) (14.97%), asthma (13%), heart (4.93%), COPD (3.77%) and stroke (1.98%) (DINKES Central Java, 2017). Hypertension and DM became the 2nd highest cases in Jepara Regency. Increasing community participation in the prevention and control of NCDs, both individually and in groups, is carried out through Community Based Health Efforts (UKBM) activities by forming and developing NCD Integrated Development Posts (Posbindu) (DINKES Kab.Jepara, 2015)(Hosni et al., 2020). POSBINDU NCD is the participation of the community in carrying out early detection and monitoring activities on NCD risk factors and follow-up which is carried out in an integrated, routine and periodic manner (Rachman et al., 2021). Implementation of follow-up in the form of counseling and referral to basic health care facilities (Rahmasari et al., 2020).

Pringtulis Village is located in Nalumsari District, Jepara Regency and is included in the Nalumsari health center area. Based on information from the Village Midwife, POSBINDU activities have never been carried out in Pringtulis Village. Based on this background, the Unnes KKN Team plans to hold POSBINDU activities in Pringtulis Village.

METHOD

This activity was carried out in Dukuh Gajihan. Dukuh Gajihan consists of 1 Rw and 3 RT. This activity took place at the residence of Mr. RW. This activity starts at 07.30 to 11.30 WIB. In the implementation of activities in collaboration with health workers, Nalumsari Health Center, and village officials. This activity includes anthropometric measurements (BB, TB, abdominal circumference), blood pressure checks, vision and hearing tests, interviews about family or self-disease history and habits carried out. blood sugar check. This activity was attended by 48 residents including residents of Dukuh Gajihan and Pringtulis Village officials.

The method used is by direct examination equipped with an examination sheet. The examination sheet is as follows:

Figure 1. Interview Sheet

Figure 2. Examination Sheet

This activity is carried out by staying in place (setting up tents) or door to door to residents' homes. Activity flow :

1. Residents come with Family Cards (KK) or Identity Cards (KTP)
2. The Unnes KKN team writes down the Family Identification Number (NIK) on the examination form. Then give it to the citizens
3. Residents wait for the call with checksheets
4. The Unnes KKN team asked about the history of non-communicable diseases, either family or self.
5. The first examination is Anthropometric measurements (BB, TB, and waist circumference) by the Unnes KKN Team.
6. The second examination is blood pressure measurement by the Village Midwife.
7. The third examination is a vision and hearing test. Residents are asked to pronounce and repeat the numbers given by the Unnes KKN Team.
8. The fourth examination is blood sugar and cholesterol checks by Nalumsari Health Center Officers.

After the inspection, residents collected the examination sheets back to the Unnes KKN Team

RESULTS AND DISCUSSION

Pringtulis Village is located in Nalumsari District, Jepara Regency. This village is one of the working areas of the Nalumsari health center. Nalumsari Health Center has only implemented POSBINDU in Pringtulis Village on July 19, 2019 which is carried out 1 time a month. This POSBINDU was held at the residence of Mr. RW Dukuh Gajihan at 07.30 to 11.30 WIB. This activity was attended by all residents aged 15-59 years as many as 48 residents. In Pringtulis Village, there are 4 Hamlets with 6 RWs and 22 RTs. Dukuh Gajihan covers 1 RW and 3 RT.

DIISI OLEH POSBINDU / FKTP																	
Riwayat Penyakit Tidak Menular Pada Keluarga										Riwayat Penyakit Tidak Menular Pada Diri Sendiri							
Urutan Daerah	eMail	Penyakit Diabetes	Penyakit Hipertensi	Penyakit Jantung	Penyakit Stroke	Penyakit Asma	Penyakit Kanker	Kolesterol Tinggi	Benjolan Payudara	Penyakit Diabetes	Penyakit Hipertensi	Penyakit Jantung	Penyakit Stroke	Penyakit Asma	Penyakit Kanker	Kolesterol Tinggi	M
1		ya	✓	-	-	-	-	✓	-	✓	✓	-	-	-	-	✓	
2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3		✓	✓	-	-	-	-	✓	-	✓	✓	-	-	-	-	✓	
4		-	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	
5		-	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	
6		-	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	
7		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
8		✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	
9		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
14		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
15		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
17		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
18		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
19		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
21		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
22		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
23		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
24		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
27		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
28		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
29		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
30		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
31		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
32		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
33		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
34		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
36		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
37		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
38		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
39		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
40		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
41		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
42		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
43		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
45		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
46		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
47		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
48		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Figure 3. Interview Results

Table 1. Distribution of Disease History in Gajihan Hamlet in 2019

No.	Characteristics of Respondents	n (resident)	(%)
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1.	History of Diabetes		
	Family	4	3,8
	Yourself	2	4,2
	Family and Self	2	4,2
	No history	40	83,3
2.	History of Hypertension		
	Family	6	12,5
	Yourself	3	6,25
	Family and Self	3	6,25
	No history	36	75
3.	History of Heart Disease	0	
4.	History of stroke	0	
5.	History of asthma	0	
6.	History of cancer	0	
7.	History of high cholesterol disease	0	
	Family	2	4,2
	Yourself	3	6,25
	Family and Self	2	4,2
	No history	41	85,42

Table 2. Recapitulation of Health Behavior Habits of Residents in Dukuh Gajihan in 2019

No.	Habit	Number (Residents)
1.	Lack of physical activity	9
2.	Lack of vegetables and fruits	8
3.	Alcohol Consumption	0

WAWANCARA			Tekanan Darah		IMT		Lingkar Perut (CM)	Pemeriksaan					Rujuk FKTP
Kurang Aktivitas Fisik	Kurang Sayur dan Buah	Konsumsi Alkohol	Sistol	Diastol	Tinggi Badan (CM)	Berat Badan (Kg)		Gula	Kolesterol	Benjolan Payudara	Gangguan Penglihatan	Gangguan Pendengaran	
ya	ya	-	125	84	155	50	80	325	349	-	-	-	
ya	ya	-	101	79	168	50	-	-	-	-	-	-	
ya	ya	-	110	85	162	55	80	-	-	-	-	-	
ya	ya	-	140	110	155	65	75	-	-	-	-	-	
ya	ya	-	120	80	167	-	-	-	-	-	-	-	
ya	ya	-	140	80	151,5	65	80	-	-	-	-	-	
ya	ya	-	140	90	164	40	90 cm	-	-	-	-	-	
ya	ya	-	140	80	149	56	95	-	-	-	-	-	
ya	ya	-	140	90	149	68	91,5	-	-	-	-	-	
ya	ya	-	-	-	159	87	92,4	284	259	-	-	-	Rujukmas
ya	ya	-	140	80	159	59	82,5	-	-	-	-	-	
ya	ya	-	120	70	161,5	59	83	164	151	-	-	-	
ya	ya	-	120	80	149,5	-	-	133	182	-	-	-	
ya	ya	-	160	100	152	61	93	105	204	-	-	-	Rujukmas
ya	ya	-	120	80	147	48	72	104	148	-	-	-	
ya	ya	-	140	100	163	50	107	115	202	-	-	-	
ya	ya	-	110	60	158	54	74	144	260	-	-	-	
ya	ya	-	100	60	141,5	51	70,5	109	178	-	-	-	
ya	ya	-	100	70	145	49	70,5	151	203	-	-	-	
ya	ya	-	120	50	144	44	72	112	162	-	-	-	
ya	ya	-	-	-	-	-	-	-	-	-	-	-	
ya	ya	-	108	70	161	51	60,5	98	137	-	-	-	
ya	ya	-	150	80	147	52	90,5	97	171	-	-	-	✓
ya	ya	-	140	70	137	48	93	-	-	-	-	-	✓
ya	ya	-	110	60	168	61	77	142	145	-	-	-	

WAWANCARA			Tekanan Darah		IMT		Lingkar Perut (CM)	Pemeriksaan					Rujuk FKTP
Kurang Aktivitas Fisik	Kurang Sayur dan Buah	Konsumsi Alkohol	Sistol	Diastol	Tinggi Badan (CM)	Berat Badan (Kg)		Gula	Kolesterol	Benjolan Payudara	Gangguan Penglihatan	Gangguan Pendengaran	
-	-	-	130	80	171,5	57	69	97	120	-	-	-	-
-	-	-	120	80	162	59	76	103	90	-	-	-	-
-	-	-	110	70	145	72	92	116	208	-	-	-	-
-	-	-	100	60	163	49	70	171	107	-	-	-	-
-	-	-	90	50	146	44	82,5	71	281	-	-	-	-
-	-	-	120	80	135	41	81,5	71	208	-	-	-	-
-	-	-	110	80	145	51	76	122	207	-	-	-	-
-	-	-	110	80	131	69	81,5	76	134	-	-	-	-
-	-	-	116	62	164	63	76	127	217	-	-	-	-
-	-	-	129	69	162	56	69	125	90	-	-	-	-
-	-	-	110	80	155	57	80	91	178	-	-	-	-
-	-	-	122	76	142	60	81	76	177	-	-	-	-
-	-	-	100	60	146	35	77	78	174	-	-	-	-
-	-	-	120	78	154	63	90	110	243	-	-	-	-
-	-	-	115	72	147	50	79	94	156	-	-	-	-
-	✓	-	184	114	171	65	84,5	262	154	-	-	-	-
-	-	-	120	80	148	53	73	137	295	-	-	-	-
-	-	-	-	-	-	-	-	122	145	-	-	-	-
-	-	-	140	80	154	72	92,4	102	104	-	-	-	-
-	-	-	120	90	173,5	35	82	106	119	-	-	-	-
✓	-	-	162	81	159	54	84,5	458	128	-	-	-	-
-	-	-	120	30	157	61	-	158	241	-	-	-	-
-	-	-	100	70	157	59	-	124	199	-	-	-	-
-	-	-	110	80	170	69	-	104	129	-	-	-	-

Figure 4. Recapitulation of Blood Pressure Test Results in 2019

Table 4. Blood pressure check

Normal (120/90) (resident)	Hypertension (>120/90) (resident)	Hypotension (<120/90) (resident)
21	19	8

Based on the results of blood pressure checks on 48 residents of Dukuh Gajihan, as many as 21 residents had normal blood pressure, 19 residents had high blood pressure / hypertension and 8 residents had low blood pressure / hypotension. A person is said to be hypertensive if systole blood pressure > 130 mmHg and distol blood pressure >85 mmHg.

Table 5. Recapitulation of BMI Examination Results (BB and TB) in 2019

IMT	KATEGORI
< 18,5	Berat badan kurang
18,5 – 22,9	Berat badan normal
≥ 23,0	Kelebihan berat badan
23,0 – 24,9	Beresiko menjadi obes
25,0 – 29,9	Obes I
≥ 30,0	Obes II

Sumber: *Centre for Obesity Research and Education 2007*

Table 6. Examination Results

IMT	Sum	Category
<18,5	2	Underweight
18,5-22,9	15	Normal weight
≥23,0	5	Overweight
23,0-24,9	9	Risk of becoming obese
25,0-29,9	8	Obese 1
≥30,0	9	Obese 2

The table above shows that most of the population has BMI in the normal category range (18.5 – 22.9 kg / m²) which is as many as 15 residents, while 9 residents have BMI at risk of becoming obese and obese 2, and for obese 1 as many as 8 residents. Based on the results of research conducted by The results of the study found that the prevalence of hypertension in the group of respondents who were overweight / obese was very high, reaching 40.8% or in other words 2 out of 5 people who were overweight / obese had hypertension. Statistical analysis also shows a significant relationship between BMI and blood pressure and people who are overweight / obese are 2 times more likely to develop hypertension than normal / thin people. (Mardan, Gustina, Dewanto, & Priwahyuni, 2011)

CONCLUSION

Based on the results of POSBINDU activities, it can be concluded that, most of the residents of Dukuh Gajihan have no history of non-communicable diseases (NCDs), most have BMI in the normal category range of 15 residents, and the most habit is lack of physical activity.

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