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Rejection of the Covid-19 Vaccination in Community Sidourip Village-Beringin District

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ABSTRACT: Covid-19 is currently a global concern, with the number of cases increasing daily. Indonesia has the highest rate of confirmed cases in Southeast Asia. The Covid-19 vaccine is one of the government's breakthroughs in the control and management of Covid-19. The aim of Covid-19 vaccination is to reduce spread, morbidity and mortality, achieve immunity and protect the public. However, there are still many groups of people who refuse to be vaccinated. The main objective is to determine the factors associated with community refusal of Covid-19 vaccination in Sidourip village, Beringin district in 2021. Methods are observational-analytical studies with cross-sectional design. Sample size was determined using a convenience sampling method with a sample of 83 people. Relationship between age and community refusal of Covid-19 vaccine p value = 0.003 ($p \leq 0.05$). Relationship between work and community refusal of Covid-19 vaccine p value = 0.007 ($p \leq 0.05$). Relationship between level of education and community refusal of Covid-19 vaccine p value = 0.000 ($p \leq 0.05$). The conclusion is that there is a relationship between age, occupational status and level of knowledge with community rejection of Covid-19 vaccine in Sidourip village, Beringin district in 2021.

Keywords: community refusal, Covid-19, Immunity, Vaccine refusal, occupational status.

I. INTRODUCTION

A pandemic is a widespread outbreak of a disease that occurs concurrently across extensive geographical regions. It surpasses the boundaries of individual epidemics by affecting nearly entire countries or continents, impacting a large population. Typically, there is a notable surge in disease rates above the usual levels, and the onset of the illness is often abrupt within a specific geographic area. Pandemics demand heightened awareness as they can spread stealthily throughout populations top of form [1, 2,3]. The coronavirus disease 2019 (Covid-19) is an infectious ailment that has evolved into a global pandemic. As of 2020, millions of individuals are falling ill and succumbing to this disease on a daily basis. The mortality rate for confirmed Covid-19 cases stands at approximately 2.67%. In comparison to the severe acute respiratory syndrome (SARS) rate of 9.60% (November 2002 to July 2003) and the Middle East Respiratory Syndrome (MERS) rate of 34.4% (April 2012 to November 2019), the mortality rate for Covid-19 is often lower. The primary modes of transmission are through droplets and respiratory contact, making everyone generally susceptible to this virus [4].

The China National Representative Office of the World Health Organization reported an instance of pneumonia with an unknown cause in Wuhan, Hubei Province, China. Subsequently, on January 7, 2020,

China identified this pneumonia as a novel coronavirus, later named Coronavirus Disease 2019 (Covid-19). Recognizing the severity of the situation, on January 30, 2020, the World Health Organization declared it a Public Health Emergency of International Concern (PHSEIC) [5].

Currently, Covid-19 poses a significant global challenge, with daily increases in the number of cases affecting people universally, irrespective of age or gender. Declared a global pandemic on March 11, 2020, this announcement signified widespread infections in numerous countries [6]. March 25, 2020, there have been 414,179 confirmed cases, with 18,440 deaths reported, resulting in a Case Fatality Rate (CFR) of 4.4%. These cases have been documented in 192 countries/regions. Additionally, there were reports of healthcare workers contracting the coronavirus in this situation [7]. Indonesia has been identified as one of the nations with confirmed cases of Covid-19. The initial report on March 2, 2020, disclosed 2 confirmed cases, marking the onset of a daily increase in the number of Indonesians contracting the coronavirus. As of July 13, 2021, the total confirmed Covid-19 cases in Indonesia have surged to 2,615,529, with 68,219 reported deaths, translating to a 2.6% mortality rate. Notably, Indonesia holds the highest rate of confirmed cases in Southeast Asia [8].

II. MATERIALS AND METHODS

This research was conducted in Sidourip Village, Beringin District, North Sumatra Province. The research was conducted in February 2022. Respondents in this study totaled 83 people who met the inclusion criteria and exclusion criteria in Sidourip Village, Beringin District, North Sumatra Province. Data collection using a questionnaire to assess the level of public knowledge about Covid-19.

Table 1. Frequency and percentage distribution based on gender, age, education level and occupation

Characteristic	Total (n)	Percentage (%)
Sex		
man	37	44.6
female	46	55.4
Age		
17-25 years	42	50.6
26-35 years	19	22.9
36-45 years	17	20.5
46-55 tahun	5	6.0
Education		
Low	29	34.9
High	54	65.1
Job		
No work	58	69.9
work	25	30.1
Total	83	100

The age of respondents who became the largest sample in the 17–25-year age group amounted to 42 people (50.6%). In the age group 26-35 years, there were 19 people (22.9%). In the age group 36-45 years, there were 17 people (20.5%). In the age group 46-55 years, there were 5 people (6.0%). This research is the same as the research of [9]. The age group 17-25 years totaled 27 people (72.9%). The age group 26-35 years totalled people (22.9%).

Table 2. Frequency Distribution and Percentage of Public Rejection of Covid 19 Vaccination Based on Level of Knowledge

Level of Knowledge	Total (n)	Percentage (%)
Low	18	21.7
Middle	19	22.9
Good	46	55.4
Total	83	100

In the 36–45-year age group, there were 17 people (20.5%). In the age group 46-55 years, there were 5 people (6.0%). This study is different from research conducted by Zega (2021), namely the most respondents in the age group 25-35 years, totaling 154 people (43.6%). In the 36-45 age group, there were 116 people (32.9%), in the 46-55 age group there were 67 people (19%), in the 56-65 age group there were 13 people (3.7%) and in the age group over 65 years there were 3 people (0.8%).

Table 3. Relationship between Age and Public Rejection of Covid Vaccines 19

Years Old	Rejection				P Value
	Accepted		Rejected		
	(n)	(%)	(n)	(%)	
17-25 yo	28	3.7	14	6.9	**0.003**
26-35 yo	3	3.6	16	9.3	
36-45 yo	8	9.7	9	0.8	
46-55 yo	3	3.6	2	2.4	
Total	**442**	**50.6**	**441**	**49.4**	

Table 4. Relationship between occupation and community rejection of the Covid 19 vaccine

Occupational	Rejection				P *Value*
	Accepted		Rejection		
	(n)	(%)	(n)	(%)	0.007
No	2	2.4	55	66.3	
Work	15	18.1	11	13.2	
Total	17	20.5	66	79.4	

Then followed by the next factor, namely the respondent's education factor with the relationship between refusal of Covid 19 vaccination, there were 54 respondents (65.1%) at a high level of education, and there were 29 people (34.9%) who had a low level of education. The employment factor that can be related to the rejection of Covid 19 vaccination is highest among respondents who do not work, totaling 58 people (69.9%) and there are 25 people (30.1%) who work.

Table 6. Relationship between Knowledge Level and Community Rejection of Covid 19 Vaccine

Level of knowledge	Rejected				P *Value*
	Accepted		Rejected		
	(n)	(%)	(n)	(%)	0.000
Low	2	2.4	16	19.3	
Enough	25	6.0	14	16.9	
Good	35	42.2	11	13.2	
Total	42	50.6	41	49.4	

Good knowledge level is the highest result obtained in respondents conducted in this study with 46 respondents (55.4%). There are 18 people (21.7%) who have less knowledge. And there

are 19 people (22.9%) who have sufficient knowledge. Public knowledge of information can be influenced by a person's education, namely the higher the level of education of a person, the easier it is to receive information. Living with someone who has risk factors and has a high income can also affect a person's knowledge about COVID-19 vaccination [10].

III. FINDINGS AND DISCUSSION

Based on the results of the Chi Square bivariate test, it was found that the p value = 0.003 ($p \leq 0.05$) which shows that there is a relationship between age and community rejection of the Covid 19 vaccine in Sidourip village, Beringin District, this is in line with research conducted by [11] with a p value = 0.043 ($P < 0.00$) which shows that there is a relationship between age and the willingness to vaccinate Covid 19, but this also contradicts the research conducted by Maryani which shows that there is no relationship between age and vaccination compliance with a p value = 0.588. The difference in age level with refusal of Covid 19 vaccination can be influenced by many things such as knowledge factors. The knowledge factor greatly influences a person's attitude to take an action, this provides a cognitive basis for the formation of attitudes. To gain sufficient knowledge related to Covid 19 vaccination, the age variable can influence him in seeking information, because people with different age categories may have different activeness and information exposure [11].

The Chi Square test reveals that employment status is linked to community rejection of Covid 19 vaccine in Sidourip village, Beringin sub-district. Specifically, the p value was 0.007 ($p \leq 0.05$), suggesting a significant correlation between occupation and vaccine hesitancy. This supports previous research conducted by Karina Eka et al in 2021 which similarly found a relationship between employment status and community rejection of the Covid 19 vaccine. It is worth noting that work has the potential to affect knowledge and behaviour, being a daily activity. In all work environments, social relationships with colleagues are crucial, and individuals must have the ability to interact positively with others. The nature of someone's work can directly impact their quality of life, including their health. Furthermore, the type of work undertaken can significantly affect an individual's level of knowledge [12].

Based on the results of the Chi Square test, it was found that the p value = 0.000 ($p \leq 0.05$), which shows that there is a relationship between the level of knowledge and the community's rejection of the Covid 19 vaccine in Sidourip Village, Beringin District. This is in line with the research of [9] that in their research they found p value = 0.000 ($p < 0.05$), which shows the effect of knowledge on the willingness to vaccinate residents of Dukuh Menanggal, Surabaya City. Someone who has less knowledge tends to refuse vaccination due to the lack of information he gets. The better a person's knowledge, the better their actions to prevent COVID-19 [13].

Comprehensive understanding of COVID-19 vaccination is significantly shaped by factors such as higher educational attainment, age, familial ties, residence in urban areas, and a complete history of previous vaccinations [14]. One's level of education plays a crucial role in acquiring information about COVID-19 vaccination. As per the findings of the study, individuals with a college degree exhibit a more profound understanding compared to those still in college or high school. Higher educational attainment is associated with enhanced knowledge, influencing individuals' health-related concerns, including the decision to get vaccinated against COVID-19 [14].

Various negative concerns regarding vaccines contribute to the reluctance of certain individuals to undergo vaccination. The reasons for this hesitancy encompass factors such as fear of needles and previous experiences of adverse effects following immunization. Some respondents' express uncertainties regarding the vaccine's clinical trial procedures and overall safety. The credibility of the vaccine provider is deemed crucial, and many indicate a willingness to receive a domestically produced vaccine in the case of Indonesia. Additionally, respondents anticipate political leaders to lead by example, advocating that leader should be among the first to receive the vaccine before the general population during mass vaccination efforts. A portion of respondents remains skeptical about the reality of COVID-19 (SARS-CoV-2) and its potential threat to public health, attributing the pandemic to perceived propaganda, conspiracy theories, hoaxes, or intentional efforts to instill fear through media for financial gain.

IV. CONCLUSION

The investigation carried out in Sidourip Village, Beringin District in 2021 discovered that 44.6% of participants were male and 55.4% were female. The age distribution displayed that 50.6% belonged to the 17-25 age group, 22.9% were in the 26-35 age group, 20.5% were in the 36-45 age group, and 6.0% were in the 46-55 age group. Concerning education, 34.9% had a low level, while 65.1% had a high level. With regards to employment, 69.9% were not employed, while 30.1% were employed. Knowledge levels varied, with 21.7% having inadequate knowledge, 22.9% having satisfactory knowledge, and 55.4% having proficient knowledge. The Chi Square test revealed significant correlations between age and refusal of the Covid-19 vaccine among the community (p value = 0.003), occupation and vaccine rejection (p value = 0.007), and knowledge levels and vaccine refusal (p value = 0.000). These findings indicate that age, occupation, and knowledge levels have an impact on the community's rejection of the Covid-19 vaccine in Sidourip Village, Beringin District.

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