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COMMUNITY ENGAGEMENT AND ASSOCIATED FACTORS FOR THE COVID-19 VACCINATION AT THE WORK AREA OF BATANG KUIS PUBLIC HEALTH CENTER, INDONESIA

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ABSTRACT

Introduction: In Indonesia, the prevalence of COVID-19 is getting higher, North Sumatera Province ranks the 12th most COVID-19 cases in Indonesia with a total of 33.762 cases. WHO encourages countries to develop COVID-19 vaccine. However, currently many people have not been engaged in implementing the COVID-19 vaccination. Based on data, the achievement of vaccination in Indonesia is only 13,5%. Of the preliminary survey found that only 38,5% of people aged 18 years old and more had COVID-19 vaccination. **Method:** The research method was a quantitative study with a cross sectional research design. The sample was 114 respondents that were selected by systematic random sampling technique. Data was collected through interview by using a questionnaire and data was analyzed using by logistic regression approach. **Result:** The percentage of COVID-19 vaccination was still low. Factors that related to community engagement for COVID-19 vaccination were age, knowledge, education level, occupation, and marital status. From the results of the logistic regression test, it was found that knowledge and education level were contributed to community engagement for the COVID-19 vaccination ($p < 0.05$). **Conclusion:** The percentage of COVID-19 vaccination in the community was still low and this was related to education and knowledge. Therefore, health promotion regarding COVID-19 prevention and the vaccination is necessary, and should be intensified to improve knowledge and practice of community.

Keywords: Community Engagement, Associated Factors, COVID-19 Vaccination

INTRODUCTION

COVID-19 was first discovered in the city of Wuhan, China in December 2019 as a case of pneumonia or pneumonia of unknown cause (WHO, 2020). In China, it has just been confirmed that the pneumonia is a new type of corona virus called the novel coronavirus or COVID-19.

COVID-19 is an infectious disease caused by a new type of coronavirus that was discovered in 2019 and has becom e a pandemic that occurs in countries around the world. Based on data compiled from WHO on June 18, 2021, globally there were 178,176,825 cases of COVID-19 worldwide. With a total of 162,676,718 cases declared cured and 3,857,297 cases declared dead. where the countries with the highest rankings are the United States, India, Brazil, France, Turkey (WHO, 2020).

Indonesia is also one of the countries that has not escaped the attack of this disease and is ranked 18th with the most cases exposed to COVID-19 in the world, where as of June 18, 2021, there were 1,950,276 cases with 53,753 people dying, 1,771,220 people recovered and 125,303 being infected. under treatment (Ministry of Health RI, 2020).

Vulnerability in communities is increasing due to a lack of public awareness of hygiene protocols such as wearing masks, washing hands and maintaining a distance of at least 1-2 meters. Without timely and appropriate public health interventions, Indonesia is estimated to have as many as 2.5 million COVID-19 cases requiring hospitalization and an estimated 250,000 deaths. Therefore, immediate intervention is necessary, not only in the implementation of health protocols, but also other effective interventions to break the chain of disease transmission, namely through vaccina t ion efforts. Countries including Indonesia are striving to develop an ideal vaccine to prevent infection with SARS-CoV-2 with multiple platforms, i.e. inactivated/inactivated vaccine virus vaccine, live attenuated virus vaccine, vector va ccine virus, nucleic acid Vaccines, virus-like vaccines (k) and vaccine protein subunits.

COVID-19 vaccination aims to reduce the spread of COVID-19, reduce morbidity and mortality from COVID-19, achieve herd immunity and protect communities from COVID-19 to maintain social and economic productivity. Herd immunity can only develop if vaccination coverage is high and evenly distributed across the region. Prevention efforts

by providing vaccination programs will be more cost-effective than treatment efforts if evaluated from an economic perspective.

North Sumatera itself ranks the 12th most COVID-19 cases in Indonesia, which was recorded from June 17, 2021 with a total of 33,762 cases, 30,024 recovered and 1,122 died, and for the Deli Serdang Regency area, 150 suspects were found, 2931 confirmed positive for covid 19, 164 people died and 2,385 people were declared cured while at the research location, Batang Kuis District, based on the last updated data on June 10, 2021, 10 suspect people were found. 60 people were confirmed to be COVID-19, 7 people died and 45 people were declared cured.

The engagement of all these parties in breaking the chain of transmission of COVID-19 is really needed. This effort can be done together by reducing the number of cases through changes in behavior to adapt to new habits. Adaptation to new habits or IMR is a policy that substantially adopts the new normal guidelines from the World Health Organization (WHO) and the Government. The implementation of the IMR policy is in line with the continuity of community activities. Return to the way it was before the pandemic.

Based on an initial survey supported by data on the prevalence of COVID-19 in the Batang Kuis District and also interviews with the community in the Batang Kuis District, there were 28 active cases recorded, 11 people died, and 77 people recovered. Researcher's initial survey data through interviews regarding engagement in covid 19 vaccination results showed that the Batang Kuis community vaccinated 38% and did not vaccinate 62%, of which 38% had vaccinated 78% for reasons of work benefits and 28% of their own volition. There needs to be community engagement in achieving the 70% vaccination target. Therefore, researchers want to know what are the factors that influence community engagement in COVID-19 vaccination, in order to obtain a policy recommendation that is in accordance with community conditions in the field. The purpose of this study is to analyze how the community is engaged in COVID-19 vaccination in Batang Kuis District.

METHODOLOGY

This study uses quantitative research, with a cross-sectional research design, which was conducted with a sample of 114 respondents with a systematic random sampling technique, data collection was carried out using a questionnaire.

RESULTS AND DISCUSSION

The results in this study indicate that 114 respondents from the Batang Kuis District, by answering the questions about the characteristics of the respondents as follows:

Table 1. Frequency Distribution of Respondents Characteristics

Characteristics of Respondents	Category	Frequency	Percentage (%)
Age	20-40 41-51 ≥ 52	46 42 26	39.5
Gender	Male Female	46 68	46 68
Education	Diploma Bachelor	68 46	39.5
Job	Students Employee Businessman Civilservant Doesn'twork	18 24 26 27 19	23.3
Marital Status	Married Notmarried yet Widower/Widow	59 33 22	51.9
Religion	Islam Christian Hindu Buddha	92 12 6 4	80.8
Amount		**114**	100.0

The results showed that the participation of respondents was 114 respondents with characteristics; respondents with age category 20-40 years as many as 46 respondents (39.5%), gender category female as many as 68 respondents (68%), latest education in high category (bachelor) as many as 46 respondents (39.5%), employment category civil servant civil servants as many as 27 respondents (23.3%), married status in the married category as many as 59 respondents (51.9%), religion in the Islamic category as many as 92 respondents (80.8%).

Table 2. Frequency Distribution of Respondents' Knowledge about COVID-19 Vaccination

Variable	Category	Frequency	Percentage (%)
Knowledge	Good	31	27.2
	Enough	53	46.4
	Not Enough	30	26.4
Amount		**114**	**100.0**

Source: Primary Data Processing

Based on the table above, it shows that the knowledge of respondents in the good category is 31 respondents (27.2%), 53 respondents (46.4%) are sufficient and 30 respondents are less (26.4%).

Table 3. Frequency Distribution of Community Engagement for COVID-19 Vaccination

Variable	Category	Frequency	Percentage (%)
Community Engagement	Willing	41	35.3
	Not willing	73	64.7
Amount		**114**	**100.0**

Based on the results of the research, the table above shows that the engagement of the community in Covid-19 vaccination is only 41 respondents (35.3%), while the category is not willing to participate in the Covid-19 vaccination as many as 73 respondents (64.7%).

Table 4. Frequency Distribution of Information Sources on COVID-19 Vaccination

Knowledge	Source	Frequency	Percentage (%)
Resources	Covid Task Force/ Ministry of Health/ BPOM	14	12.2
	WHO/NGO/UNICEF	8	7.0
	Facebook	23	20.2
	Instagram	11	9.7
	Twitter	2	1.8
	WhatsApp	28	24.6
	Television	21	18.4
	Newspaper	7	6.1
Amount		**114**	**100. 0**

Based on the table above, it shows that the source of information about the COVID-19 vaccination in Batang Kuis District, Deli Serdang Regency, the most information was obtained from WhatsApp as many as 28 respondents (24.6%), Facebook as many as 23 respondents (20.2%) and television as many as 21 respondents (18.4%).

Table 5. Factors Affecting Community Engagement in Receiving COVID-19 Vaccination in Batang Kuis District

Characteristics of Respondents	Community Engagement for the Vaccination				p- value
	Willing		Not Willing		
	n	%	n	%	
Age					
20-40	18		28		0.415
41-51	12		30		
≥ 52	11		15		
Gender					
Male	26		20		0.318
Female	15		53		
Education					
Intermediate	18		50		0.001
Bachelor	23		23		
Job					
Students	6		12		0.006
Employee	4		20		
Businessman	3		23		
Civil servant	26		1		
Doesn't work	2		17		
Marital status					
Married	18		41		0.023
Not married yet	16		17		
Widower/Widow	7		15		

Religion Islam	32		60		0.142
Christian Hindu Buddha	6 1 2		6 5 2		
Amount	**41**	**100**	**73**	**100**	

Variable Knowledge of respondents based on bivariate analysis shows that knowledge affects community engagement in COVID-19 vaccination in Batang Kuis District, Deli Serdang Regency with a p-value=0.004, which can be seen in the table below:

Table 6. Knowledge Variables Affecting Community Engagement in Receiving COVID-19 Vaccination in Batang Kuis Sub-district

Knowledge	**Community Engagement for the Vaccination**				**p- value**
	Willing		**Not willing**		
	n	**%**	**n**	**%**	
Good	8	19.5	23	31.5	
Enough	15	36.5	38	52.0	0.004
Not enough	18	44.0	12	16.5	
Amount	**41**	**100.0**	**73**	**100.0**	

The bivariate chi-square analysis showed that the factors that influenced community engagement in COVID-19 vaccination in Batang Kuis District, Deli Serdang Regency were education (p-value = 0.001), occupation (p- value=0.006) and marital status (p-value)=0.023). To see the determinants of community engagement in COVID-19 vaccination, these factors were further analyzed by multivariate analysis using logistic regression tests.

Table 7. Determinants of Community Engagement in COVID-19 Vaccination in Batang Kuis District

Variables	**B**	**S.E.**	**Sig.**	**Exp (B)**	**95% C.I. for Exp (B)**	
					Lower	Upper
Education	-0.859	0.217	0.001	0.423	0.277	0.648
Job	-0.266	0.207	0.200	0.766	0.510	1.151
Marital Status	0.040	0.065	0.537	1.041	0.917	1.182
Religion	-0.020	0.028	0.482	0.980	0.928	1.036
Knowledge	-0.912	0.261	0.001	0.402	0.241	0.670
Constant	4.112	0.927	0.000	61.096		

Based on a multivariate analysis of logistic regression tests, it was shown that the last education factor with p- value=0.001 OR=0.423 and knowledge with p-value =0.001 OR=0.402, which is a determinant of community engagement in COVID-19 vaccination in Batang Kuis District, Deli Serdang Regency.

The results showed that the participation of 114 respondents with the characteristics; respondents in the age category 20-40 years as many as 46 respondents (39.5%), gender in the female category as many as 68 respondents (68%), the latest education in the high category (bachelor) as many as 46 respondents (39.5%), employment in the civil service category civil servants as many as 27 respondents (23.3%), marital status in the married category as many as 59 respondents (51.9%), religion in the Islamic category as many as 92 respondents (80.8%) and knowledge of respondents in the good category as many as 31 respondents (27, 2%), enough as many as 53 respondents (46.4 %) a nd less than 30 respondents (26.4%), as for the source of information the respondents got about the Covid-19 vaccination in Batang Kuis District, Deli Serdang Regency, the most information was obtained from WhatsApp as many as 28 respondents (24.6%), Facebook as many as 23 respondents (20.2%) and television as many as 21 respondents (18.4%).

Public knowledge of information can be influenced by one's education, namely the higher a person's education level, the easier it is to receive information. Many other studies also discuss and strengthen this statement, namely an increase in knowledge so that people can carry out the regulations that have been determined by the government.

An application to educate the public about the importance of the COVID-19 vaccination. This application raises public awareness about the importance of COVID-19 vaccination, can visually see countries where vaccination is slow and difficult to control the spread of COVID-19. The COVID-19 vaccination education application provides adequate information and scientific-based research evidence to educate citizens. To ensure that the COVID-19 vaccination can get a high response, a COVID-19 vaccination education seminar is needed to uncover false information and also provide accurate COVID-19 vaccination information to the public (Chew, 2021).

There were only 41 respondents (35.3%) in the community engagement in the COVID-19 vaccination in Batang Kuis District, Deli Serdang Regency, while the category unwilling to participate in the COVID-19 vaccination was 73 respondents (64.7%).

Social media, family, friends and promotion are negatively associated with vaccine safety (Hwang J, 2020). The use of social media to organize offline measures strongly predicts the belief that vaccination is unsafe. The prevalence of foreign disinformation is significant in predicting a decrease in vaccination coverage. Foreign substantive effects, informed is to increase the number of negative vaccine tweets by 15% (Wilson, 2020). Advocacy for a COVID-19 vaccine should ideally be led by local communities and community advocates, access to vaccines should be transparently prioritized for those most at risk, businesses, trade unions, religious communities, charities, media, entertainment and sports are key (Hortan, 2020). Mass vaccination plans will overcome potential barriers to widesprea d adoption through educational campaigns, Vaccines are to be given to the public as soon as efficacy and safety are proven (Al Awaidy, 2020). Work to prepare the public for control of this pandemic vaccine needs to start now, there should be advocacy for a COVID-19 vaccine ideally led by local communities and community center, vaccine availability should be transformed partially prioritized for those at high risk, access to vaccines should be through appropriate arrangements. already known for example to high-end pharmacies and supermarkets and not only in hea lth clinics and hospitals. Advocacy for a COVID-19 vaccine should ideally be led by local communities and community advocates. Access to vaccines should be transparently prioritized for those most at risk, businesses, trade unions, religious communities, charities, media, entertainment and sports are key (Bhattacharya, Basu, & Poddar, 2020; Hasinuddin *et al*., 2021).

This can be an input for the government to be more aggressive in conducting health socialization regarding vaccines person to person or through social media.

CONCLUSION

The community engagement in the COVID-19 vaccination in Batang Kuis District, Deli Serdang Regency, was only 41 respondents (35.3%). Factors that influence community engagement in COVID-19 vaccination are the latest educa t ion factor and respondent's knowledge. It is recommended that in the implementation of socialization, community engagement in COVID-19 vaccination in Batang Kuis District, Deli Serdang Regency, either uses social media such as Facebook and WhatsApp or person-to-person by the COVID-19 task force team.

Conflict Of Intereste

The authors declare that they have no competing interests in writing this article.

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