

Original Research Article

Comparative Test of Knowledge and Attitudes towards COVID-19 Vaccination in Health and Non-Health Students Universitas Nusa Cendana

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Abstract: Background: Students as social control means that in any situation they must be able to control the movement of people to be wiser in receiving various information, one of which is regarding the COVID-19 vaccine so that they are expected to have good knowledge and attitudes towards COVID-19 vaccination to be able to educate the public to increase awareness and vigilance against COVID-19 through vaccination. **Research Objective:** To find out whether there are differences in knowledge and attitudes towards COVID-19 vaccination among Health and Non-Health Students at the Universitas Nusa Cendana **Settings and Design:** This is a cross-sectional approach with a comparative analysis design. **Method and Material:** Respondents involved were students of the Faculty of Medicine, Public Health, Law, and Economics & Business. There are 136 respondents who met the inclusion criteria that were chosen through the simple random sampling method using validated and reliable questionnaires. **Statistical Analysis Used:** The research was analyzed univariately using a frequency distribution table and bivariate analysis using the Kolmogorov Smirnov test with the test results for the level of knowledge obtained p-value = 0.864 and attitude obtained p-value = 1,000. The level of knowledge of most health students is good with a percentage of 100% while non-health students are categorized as good at 89.7%, 8.8% enough, and 1.5% less. The attitude of health students was in the good category of 95.6% and 4.4% enough, while non-health students were in the good category of 89.7%, 7.4% enough, and 2.9% less. **Conclusion:** There are no differences in knowledge and attitudes towards COVID-19 vaccination in health and non-health students at the Universitas Nusa Cendana.

Keyword: COVID-19 Vaccination, Knowledge, Attitude, Health Students, Non-Health Students.

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INTRODUCTION

The increasing number of COVID-19 cases in Indonesia has prompted the government to make various policies to prevent and minimize the occurrence of COVID-19. One of the policies implemented is to provide vaccinations. The COVID-19 vaccination aims to establish herd immunity as one of the efforts to prevent the transmission of COVID-19 and reduce morbidity and mortality due to COVID-19 [1].

The national vaccination target in Indonesia is 208,265,720 people, but until now there are still people

who have not received the COVID-19 vaccine, both the first and second doses. This is influenced by various public views regarding the COVID-19 vaccine, namely related to vaccine safety, feeling doubtful about the effectiveness and efficacy of the vaccine, and feeling worried about the side effects after receiving the vaccine, causing an attitude of distrust towards vaccines and rejection of the COVID-19 vaccine [2]. The emergence of various public views regarding COVID-19 vaccination can also be influenced by information circulating, but not all of the information is correct, so valid sources of data and information are needed.

Students as social control mean that in any situation they must be able to control the movement of the community to be wiser in receiving and responding to various information, one of which is about the COVID-19 vaccine [3]. Therefore, students are expected to have good knowledge and attitudes towards COVID-19 vaccination to be able to educate the public to increase awareness and vigilance against COVID-19 through COVID-19 vaccination.

Saputra and Simbolon (2020), said that being given education and counseling as well as providing health information, could increase knowledge and change one's attitudes and behavior [4]. The results of research conducted by Lestari and Handayani (2017), showed that health students had a higher level of health literacy than non-health students with a p-value of < 0.001 [5]. Another study conducted by Saiful Islam M *et al.* (2021) on knowledge, attitudes, and perceptions of COVID-19 vaccination in 1,658 people in Bangladesh, the results showed that more than half of the population had low knowledge about COVID-19 vaccination but 78% had a positive attitude towards COVID-19 vaccination [6]. In addition, a study conducted by Galle, F *et al.* (2021) on knowledge and acceptance of COVID-19 vaccination among undergraduate students in Central and Southern Italy, it was found that 91,9% had good knowledge and were willing to receive the COVID vaccine. -19 [7].

Based on the description above, it is necessary to know the knowledge and attitudes of health and non-health students towards COVID-19 vaccination. Therefore, researchers are interested in conducting a study entitled "Comparative Test of Knowledge and

Attitudes towards COVID-19 Vaccination in Health and Non-Health Students at Universitas Nusa Cendana".

The purpose of this study was to analyze whether there were differences in knowledge and attitudes towards COVID-19 vaccination among Health and Non-Health Students at Universitas Nusa Cendana.

RESEARCH METHODOLOGY

This research is a type of comparative research with a cross-sectional approach. This research was conducted at Universitas Nusa Cendana since November 10th 2021 to November 13th 2021. The sampling technique used is the Simple Random Sampling technique. The samples in this study were students of the 2019 and 2020 batches from the Faculty of Medicine, Faculty of Public Health, Faculty of Law, and Faculty of Economics & Business with a total sample of 136 people.

Data collection was carried out online by filling out a questionnaire via a Google form which was distributed through the WhatsApp application. The data were analyzed using the IBM SPSS statistics 25 computer program and a hypothesis was tested using the Kolmogorov Smirnov test to analyze whether there were differences in knowledge and attitudes towards COVID-19 vaccination in health and non-health students at Universitas Nusa Cendana.

RESULT

Respondents Characteristics

Table 1: Characteristics of Respondents

No	Characteristics	Frequency	Percentage (%)
1.	Age:		
	18 Years	10	7,4
	19 Years	56	41,2
	20 Years	58	42,6
	21 Years	9	6,6
	22 Years	3	2,2
2.	Gender:		
	Man	36	26,5
	Woman	100	73,5
3.	Faculty:		
	Medical	34	25,0
	Public Health	34	25,0
	Law	34	25,0
	Business & Economics	34	25,0
4.	Force:		
	2019	64	47,1
	2020	72	52,9
5.	Vaccine Acceptance:		
	Not yet vaccinated	2	1,5
	1 dose	13	9,6
	2 dose	121	89,0

Based on the table 1, it shows that the number of respondents aged 20 years has the highest number (41, 2%) and the majority of respondents in this study are female (73, 5%). This is in line with research conducted by Nur, ASdkk (2020) where the percentage of research respondents is 90% female and 10%, male. This can happen because there are differences in the level of compliance in filling out the questionnaire, where women have a higher level of compliance than men [8]. In addition, based on the four selected faculties, the number of respondents in each faculty was the same, namely 34 people in each faculty, while based on the batch the majority came from the 2020 batch with a total of 72 people (52, 9%).

Univariate Analysis

Table 2: Distribution of Respondents by Study Program

Study program	Frequency	Percentage(%)
Health	68	50
Non Health	68	50
Total	136	100

Based on Table 2, it is found that the percentage of respondents from health and non-health

Based on the form of receiving the vaccine to the respondents, it is known that the number of respondents who have received vaccine doses 1 and 2 are 121 people (89%). This shows that health and non-health students at Universitas Nusa Cendana have a high form of vaccine acceptance. This high form of acceptance is caused by the concern that students will be infected with COVID-19 and is also influenced by government regulations that require students to be vaccinated as one of the requirements for attending face-to-face lectures.

study programs is the same as the number of each study program 68 people.

Table 3: Distribution of Respondents Based on Knowledge Level of COVID-19 Vaccination

Knowledge	Health Student		Non-Health Students	
	F	%	F	%
Good	68	100	61	89,7
Moderate	0	0	6	8,8
Poor	0	0	1	1,5
Total	68	100	68	100

Based on Table 3, it is found that the level of good knowledge is dominated by health students with a percentage of 100%, while the level of sufficient knowledge and lack of knowledge is dominated by non-health students, with a sufficient percentage of knowledge in non-health students 8.8% and less knowledge 1, 5%.

found that the highest health student respondents' answers were on questions regarding the administration and dose of the COVID- 19 vaccine and the lowest was on questions regarding Post-Immunization Adverse Events (AEFI), while respondents' answers from The highest number of non-health students was on questions about the goals and benefits of COVID-19 vaccination and the lowest was on questions about Post-Immunization Adverse Events (AEFI).

The results of the analysis of the description of respondents' knowledgeabout COVID-19 vaccination

Table 4: Distribution of Respondents Based on Attitudes towards COVID-19 Vaccination

Attitude	Health Student		Non-Health Students	
	F	%	F	%
Good	65	95.6	61	89,7
Moderate	3	4.4	5	7,4
Poor	0	0	2	2,9
Total	68	100.0	68	100,0

Based on Table 4, the good attitude was dominated by health students with a percentage of 95,6%, while the quite good and bad attitudes were dominated by non-health students, with a fairly good percentage of 7,4% for non- health students and 2,9% less. The results of the analysis of the description of

respondents' attitudes regarding COVID-19 vaccination found that the highest answers from both health and non-health students were found in questions regarding the administration and dose of the COVID-19 vaccine, which was indicated by the number of answers strongly

agreeing to the question to health students as many as

59 people. (86,8%) and 56 non-health students (82,4%).

Bivariate Analysis

Table 5: Bivariate Analysis

	Study program	Frequency (%)	p-value
Knowledge	Health	68 (50%)	0,864
	Non Health	68 (50%)	
	Total	136 (100%)	
Attitude	Health	68 (50%)	1,000
	Non Health	68 (50%)	
	Total	136 (100%)	

*kolmogorov smirnov, *p<0,05*

Based on the results of bivariate analysis using the Kolmogorov Smirnov test, it shows that the p-value for the level of knowledge is 0,864, where $p > 0,05$ which means there is no difference in knowledge of the COVID-19 vaccine in health and non-health students and the p-value for attitudes is 1,000, where $p > 0,05$, which means that there is no difference in attitudes towards COVID-19 vaccination in health and non-health students. Therefore, it can be concluded that statistically there is no difference in knowledge and attitudes towards COVID-19 vaccination in health and non- health students at Universitas Nusa Cendana.

DISCUSSION

Differences in Attitudes towards COVID-19 Vaccination in Health and Non-Health Students

The results of the analysis using the Kolmogorov Smirnov test obtained a p-value = 1,000 where the p-value > 0.05 , which means that there is no significant difference in attitudes towards COVID-19 vaccination in health and non- health students at University of Nusa Cendana. This can be due to the large percentage of good attitudes towards COVID-19 vaccination in health and non-health students at Universitas Nusa Cendana.

The results of this study are in line with research conducted by Bai, W *et al.*, (2021) on attitudes towards the COVID-19 vaccine in Chinese students, where it was obtained that Chinese students had a positive attitude towards the COVID-19 vaccine with a p-value < 0.001 and was evidenced by the level of high vaccine acceptance among Chinese students [12]. However, this is in contrast to the results of a study conducted by Sadaqat W *et al.*, (2021) regarding the Determination of Doubts on the COVID-19 Vaccine Among Students which showed that medical students had a positive attitude towards the COVID-19 vaccine compared to non-medical students. Non-medical students have a high level of doubt about receiving vaccines which is influenced by the distrust of non-medical students regarding vaccine safety, where this attitude is obtained from various circulating information media. There was no significant difference regarding attitudes towards COVID-19 vaccination in health and

non-health students at Universitas Nusa Cendana, this could be due to the high level of knowledge about the COVID-19 vaccine in students, thereby increasing student confidence in vaccines which is supported by a high percentage of vaccine receipts in students. health and non-health students at the Universitas Nusa Cendana, namely with the number of receiving vaccine doses of 1 and 2 as many as 121 people (89%). This is following Notoatmodjo's statement in Moudy and Syakurah (2020) regarding knowledge related to Coronavirus Disease (COVID-19) prevention efforts in Indonesia that knowledge is one of the predisposing factors, namely factors that facilitate the formation of one's attitudes and behavior. People who have good knowledge, then their attitudes and actions will be carried out more correctly or precisely following what should be done [13].

CONCLUSION

This research concludes that there is no difference in knowledge and attitudes towards COVID-19 vaccination in health and non-health students at Universitas Nusa Cendana, as evidenced by the p-value for the knowledge level of 0.864 (> 0.05) and p-value for the attitude of 1,000 ($>0,05$).

REFERENCES

1. Afifah, F. (2020). *Tingkat pengetahuan mahasiswa angkatan 2018 fakultas kedokteran Umsu tentang Covid 19*. Universitas Muhammadiyah Sumatera Utara.
2. Amanda, E. (2017). *Gambaran Tingkat Pengetahuan Pasien TB Mengenai Pelayanan Kesehatan Yang Menggunakan Strategi Dots Di Puskesmas Medan Johor*. Universitas Sumatera Utara.
3. Bai, W., Cai, H., Liu, S., Liu, H., Qi, H., & Chen, X. (2021). *Attitudes toward COVID-19 vaccines in Chinese college students*, 17, 17-23. <https://doi.org/10.7150/ijbs.58835>
4. Gallè, F., Sabella, E. A., Roma, P., De Giglio, O., Caggiano, G., Tafuri, S., Da Molin, G., Ferracuti, S., Montagna, M. T., Liguori, G., Orsi, G. B., & Napoli, C. (2021). Knowledge and acceptance of COVID-19 vaccination among undergraduate

- students from central and southern Italy. *Vaccines*, 9(6), 1-13. <https://doi.org/10.3390/vaccines9060638>
5. Herlina, N. (2021). *Penyelenggaraan Pembelajaran Tatap Muka Tahun Akademik 2021/2022*. Dikti.Kemendikbud.Go.Id.
 6. Lestari, P., & Handiyani, H. (2017). The Higher Level of Health Literacy Among Health Students Compared with Non-Health Students. *UI Proc. Health And Medicine*, 1, 1-5.
 7. Lytras, T., & Tsiodras, S. (2021). Lockdowns and the COVID-19 pandemic: What is the endgame? *Scandinavian Journal of Public Health*, 49(1), 37-40. <https://doi.org/10.1177/1403494820961293>
 8. Meiri K, E., Supriyatno, E., Damayanti, C. N., & Fatoni, A. F. (2020). Hubungan Penggunaan Gadget Dengan Tingkat Perkembangan Kognitif (Tingkat Prestasi) Pada Anak Usia 7-11 Tahun Di SDN Kebun Dadap Timur Kabupaten Sumenep. *Infokes : Info Kesehatan*, 10(2), 259-266.
 9. Muntaza, Y., & Adi, A. C. (2020). Hubungan Sumber Informasi dan Pengalaman dengan Tingkat Pengetahuan tentang Penggunaan Monosodium Glutamate (MSG) pada Ibu Rumah Tangga. *Amerta Nutrition*, 4(1), 72. <https://doi.org/10.20473/amnt.v4i1.2020.72-78>
 10. Rachman, F. F., & Pramana, S. (2020). Analisis Sentimen Pro dan Kontra Masyarakat Indonesia tentang Vaksin COVID-19 pada Media Sosial Twitter. *Health Information Management Journal*, 8(2), 100-109.
 11. Saiful, I. M., Siddique, A. B., Akter, R., Tasnim, R., Safaet, M., Sujana, H., Ward, P. R., Islam, M. S., & Sikder, M. T. (2021). Knowledge, attitudes and perceptions towards COVID-19 vaccinations: a cross-sectional community survey in Bangladesh. *MedRxiv*, 2021.02.16.21251802.
 12. Saputra, A. W., & Simbolon, I. (2020). Hubungan Tingkat Pengetahuan tentang COVID-19 terhadap Kepatuhan Program Lockdown untuk Mengurangi Penyebaran COVID-19 di Kalangan Mahasiswa Berasrama Universitas Advent Indonesia. *Nutrix Jurnal*, 4(2), 1-7.
 13. Usman, S., Budi, S., & Nur, A. S. D. (2020). Pengetahuan Dan Sikap Mahasiswa Kesehatan Tentang Pencegahan Covid-19 Di Indonesia. *Jurnal Ilmu Keperawatan Dan Kebidanan*, 11(2), 410-414.

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