Knowledge, Attitude, and Practices toward COVID-19 Vaccine Acceptance: A Cross-Sectional Study

by Cek Turnitin

Submission date: 05-Dec-2022 05:40PM (UTC+0900)
Submission ID: 1803147330
File name: full_artikel_en_turnitin.docx (80.96K)
Word count: 3429
Character count: 18429

Knowledge, Attitude, and Practices toward COVID-19 Vaccine Acceptance: A Cross-Sectional Study

Reny Nugraheni, Wahyu Sri Astutik

Institut Ilmu Kesehatan Bhakti Wiyata Kediri, East Java, Indonesia

ABSTRACT

Objective: Based on WHO recommendations, vaccination can save millions of lives and is widely known for one of the most successful and cost-effective health interventions. Some people are still reluctant to be vaccinated because of the potential side effects. This study aims to analyze the effect of knowledge, attitudes, and practices toward Covid-19 vaccine acceptance.

Material and Methods: It is a quantitative study with cross-sectional approach. This study was conducted from December 2021 to February 2022. During the data collection process, 520 samples were obtained. It employed simple random sampling. Data were collected by using a questionnaire via Google form to analyze the acceptance of the Covid-19 vaccination program in the community. To analyze the data, it adopted multiple linear regression with SPSS version 25.

Results: Knowledge (b= 0.11, SE= 0.05, CI 95% = 0.01 to 0.21, p= 0.030), attitude (b= 0.08, SE= 0.03, CI 95% = 0.03 to 0.13, p= 0.003), and practices (b= 0.07, SE= 0.02, CI 95% = 0.03 to 0.10, p <0.001) affected Covid-19 vaccine acceptance. The higher the knowledge about the Covid-19 vaccine, the higher public acceptance of vaccination. The more positive the public's attitude towards the Covid-19 vaccine, the higher public's acceptance of vaccination. The better the public's practices, the higher the level of acceptance of the Covid-19 vaccine.

Conclusion: comprehensive knowledge, positive attitudes, and good pratices affect the acceptance of the Covid-19 vaccine. Even though people have received a complete Covid-19 vaccination, they should stay disciplined upon implementing health protocols to reduce the risk of Covid-19 virus transmission.

Keywords: knowledge, attitude, practice, Covid-19 vaccine

Correspondence:
Reny Nugraheni. Institut Ilmu Kesehatan Bhakti Wiyata Kediri, Indonesia. Email: reny.nugraheni@iik.ac.id

Introduction

Covid-19 vaccination is a government policy program around the world that aims to reduce the transmission of Covid-19, reduce morbidity, mortality due to Covid-19, and achieve herd immunity and protect people to remain socially and economically productive[1]. Herd immunity can only be established if vaccination coverage is high and evenly distributed throughout the region [2,3]. Prevention through vaccination programs, once assessed from the economic side, will be much more cost-effective compared to treatment efforts [4,5].

High vaccination coverage globally is indispensable to stop the Covid-19 pandemic [6]. However, the pros and cons follow the ongoing Covid-19 vaccination program in many countries, including Indonesia. Some studies have suggested several factors responsible for vaccine acceptance, which are vaccine efficacy, adverse health outcomes, misunderstanding of the need for vaccination, lack of trust in

the health system, lack of knowledge about vaccine-preventable diseases. Doubts about vaccines can put public health at risk in response to the current crisis [7,8].

To break the chain of Covid-19 spread, on December 16, 2020, 1.2 million doses of Covid-19 vaccine were imported to Indonesia[9]. Vaccination program was enforced to prevent the spread of the Covid-19 outbreak. The people allowed to receive the vaccine were healthy adults aged 18-59 years. They received an explanation and signed a letter of approval and were willing to follow the rules and schedule of immunization (vaccination). However, there were several conditions in which the Covid-19 vaccine could not be given to someone, such as too high blood pressure (over 140/90), confirmed with Covid-19, being pregnant/breastfeeding, experiencing symptoms of ISPA such as cough/runny nose/shortness of breath within 7 days, having family members in close contact/suspect/confirmed to be under treatment due to Covid-19, getting long-term active therapy against blood disorders, patients with heart disease (heart failure/coroner), systemic autoimmune diseases (SLE/Lupus, sjogren, vasculitis), kidney disease, autoimmune rheumatic disease or rhematoid arthritis, chronic gastrointestinal disease, hyperteroid or hyperteroid disease due to autoimmune, cancer, blood loss, immunocompromising/immune deficiency and recipient of blood products/transfusion, as well as HIV with a CD4 count of less than 200 or unknown [10].

For the implementation of Covid-19 vaccination in the target group of the elderly, comorbid and Covid-19 survivors and delay targets, the immunization Expert Advisory Committee has submitted a study that COVID-19 vaccination can be given to the age group of 60 years and over, comorbid (hypertension is vaccinable unless the blood pressure is over 180/110 MmHg, diabetics can also be vaccinated as long as there are no acute complications, and cancer survivors are also vaccinable), COVID-19 survivors (vaccinable if it has been over 3 months), and breastfeeding mothers with additional anamnesis in the first place[11].

The first stage of vaccination was carried out on January 13, 2021 and the second stage was on January 27, 2021. People who received vaccine experienced diverse reactions, such as headaches or fever, yet it was not a serious health problem [12,13]. Determination of Vaccine Types for Corona Virus Disease 2019 (Covid-19) vaccination, apart from Sinovac, vaccines produced by PT Bio Farma (Persero), AstraZeneca, China National Pharmaceutical Group Corporation (Sinopharm), Moderna, Pfizer Inc. and BioNTech can be used for vaccination in Indonesia. The vaccines are still in the third phase of clinical trials or have completed the third phase. Although vaccination has been administered since January 2021, there are still a lot of people who are hesitant to take part in vaccination up to now. Some are apprehensive or some believe in hoax news that discourages vaccination.

Material and Methods

This research is a quantitative study with a cross sectional approach. The population of the study refers to the whole community living in Kediri, East Java. This study was conducted from December 2021 to February 2022. To set the number of samples, it employed Lemeshow formula because the number of populations is not certain due to the Covid pandemic. In the equation, n=sample size, z= Standard value = 1.96 (at 5% level of significance, p= maximum estimate = 50% = 0.5, and d= alpha (0.05) or sampling error = 5%. Based on the calculations, the minimum number of samples needed in this study was 384 respondents. During the data collection process, 520 samples were obtained. It employed simple random sampling. Data were collected by using a questionnaire via Google form to analyze the acceptance of the Covid-19 vaccination program in the community. The research data were information obtained through questionnaires distributed in Google forms through social media. In the first part, the questionnaire contains the characteristics of respondents which include age, gender, recent education and work. The second part

explores the knowledge variable, the third part is about the attitude variable, the fourth is about the practice variable, and the last is about acceptance of the Covid-19 vaccination program among the community. The scoring for the knowledge variable uses two answer options, true (with a value of 1) and false (with a value of 0). To measure the attitude variable, it refered to Likert scale from 1 (strongly disagree) to 5 (strongly agree). For practice variables, it also used Likert scale from 1 (never) to 5 (always). To analyze the data, it adopted multiple linear regression with SPSS version 25. This study has been approved by the Health Research Ethics Committee of the Institute of Health Science STRADA Indonesia (Ethics approval number: 2459/KEPK/XI/2021).

Results

Table 1 shows that the dominant age involved in the study is early adulthood (ages 22-34) (64.8%). The dominant gender to fill out the questionnaire is female (74.8%). The highest percentage of respondents is secondary education (50.2%). Most respondents in the study work in the private sector (43.5%) with monthly income of 1-3 million (60.6%).

Table 1 Demographic characteristics of the research participants (n = 520)

Demographic	Groups	Frequency	Percentage (%)
Age	Early Adulthood (ages 22-34)	337	64.8
	Early Middle Age (ages 35-44)	135	26.0
	Late Middle Age (ages 45-64)	48	9.2
Gender	Male	131	25.2
	Female	389	74.8
Education	Primary school/elementary	49	9.4
	Secondary education	261	50.2
	Diploma	181	34.8
	University degree	26	5.0
	Post-graduate degree	3	0.6
Employment	Unemployed	74	14.2
	Government sector	88	16.9
	Private sector	226	43.5
	Self-employed	132	25.4
Monthly family income (in IDR)	<1 million	108	20.8
	1–3 million	315	60.6
	>3 million	97	18.6

Table 2 contains knowledge questions from 520 respondents. Most respondents seem to know that vaccines can boost the immune system (correct answer rate 89.0 %), the body will form antibodies to fight against the virus (99.6 %), availability of vaccines helps the handling of the Covid-19 pandemic (96.9 %), main goal of vaccination is to reduce transmission of the virus, reduce morbidity and mortality from Covid-19 (87.5 %), vaccination to achieve group immunity in society (herd immunity) (98.7 %), the benefits of vaccination in the long term can reduce social and economic impacts (78.8 %), the Covid-19 vaccine is given in two stages (91.0 %), people who have taken the first phase of the vaccination must take the second phase of the vaccination (95.6 %), the CoronaVac vaccine produced by SINOVAC is a vaccine that has been widely spread in Indonesia (98.8 %), common side effects that can occur after the vaccine are fever, pain, redness or rash at the injection site (97.1 %), everyone should get the vaccine (99.0 %), even though we have received the vaccine, we still have to comply with health protocols (94.2 %), the government only provides vaccines that are proven safe and pass clinical trials (96.0 %), and the priority of vaccine recipients is vulnerable groups (93.1 %).

Table 2 Participant's knowledge about Covid-19 vaccine

Knowledge	True (%)	False (%)
Vaccines can boost the immune system	463 (89.0)	57 (11.0)
The body will form antibodies to fight against the virus	518 (99.6)	2 (0.4)
The availability of vaccines helps the handling of the Covid-19 pandemic	504 (96.9)	16 (3.1)
The main goal of vaccination is to reduce transmission of the virus, reduce morbidity and mortality from Covid-19	455 (87.5)	65 (12.5)
Vaccination to achieve group immunity in society (herd immunity)	513 (98.7)	7 (1.3)
The benefits of vaccination in the long term can reduce social and economic impacts	410 (78.8)	110 (21.2)
The Covid-19 vaccine is given in two stages	473 (91.0)	47 (9.0)
People who have taken the first phase of the vaccination must take the second phase of the vaccination	497 (95.6)	23 (4.4)
The CoronaVac vaccine produced by SINOVAC is a vaccine that has been widely spread in Indonesia	514 (98.8)	6 (1.2)
Common side effects that can occur after the vaccine are fever, pain, redness or rash at the injection site	505 (97.1)	15 (2.9)
Everyone should get the vaccine	515 (99.0)	5 (1.0)
Even though we have received the vaccine, we still have to comply with health protocols	490 (94.2)	30 (5.8)
The government only provides vaccines that are proven safe and pass clinical trials	499 (96.0)	21 (4.0)
The priority of vaccine recipients is vulnerable groups	484 (93.1)	36 (6.9)

Table 3 shows questions about the attitudes of 520 respondents. Most of the respondents stated that they strongly agreed that Covid-19 vaccination is important so the body will recognize the virus and reduce the risk of exposure (59.0 %), Covid-19 vaccination can prevent death from the coronavirus (44.6 %), Covid-19 vaccination is not only carried out by people who have risk factors for the virus (46.2 %), Covid-19 vaccination is carried out for people who have not been exposed to the virus (45.8 %), an explanation of the benefits of the Covid-19 vaccine is very necessary (64.2 %), Covid-19 vaccination is very safe for the public and has been scientifically proven (52.3 %), Covid-19 vaccination is an effective method of preventing the transmission of Covid-19 (56.3 %), Covid-19 vaccination is carried out and continues to implement strict health protocols (58.7 %), doing the Covid-19 vaccine protects against viral infection (46.2 %), after knowing about the Covid-19 vaccination, I will immediately do the vaccine (51.5 %), before the Covid-19 vaccine, we must carry out screening (65.2 %), and information about the Covid-19 vaccination is easy to find (60.0 %).

Table 3 Participant's attitude about COVID-19 vaccine

Attitude	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)
Covid-19 vaccination is important so the body will recognize the virus and reduce the risk of exposure	10 (1.9)	28 (5.4)	15 (2.9)	160 (30.8)	307 (59.0)
Covid-19 vaccination can prevent death from the coronavirus	5 (1.0)	29 (5.6)	45 (8.7)	209 (40.2)	232 (44.6)

Covid-19 vaccination is not only carried out by people who have risk factors for the virus	1 (0.2)	6 (1.2)	42 (8.1)	231 (44.4)	240 (46.2)
Covid-19 vaccination is carried out for people who have not been exposed to the virus	2 (0.4)	11 (2.1)	36 (6.9)	233 (44.8)	238 (45.8)
An explanation of the benefits of the Covid-19 vaccine is very necessary	2 (0.4)	6 (1.2)	12 (2.3)	166 (31.9)	334 (64.2)
Covid-19 vaccination is very safe for the public and has been scientifically proven	3 (0.6)	3 (0.6)	9 (1.7)	233 (44.8)	272 (52.3)
Covid-19 vaccination is an effective method of preventing the transmission of Covid-19	2 (0.4)	4 (0.8)	16 (3.1)	205 (39.4)	293 (56.3)
Covid-19 vaccination is carried out and continues to implement strict health protocols	2 (0.4)	13 (2.5)	22 (4.2)	178 (34.2)	305 (58.7)
Doing the Covid-19 vaccine protects against viral infection	6 (1.2)	14 (2.7)	51 (9.8)	209 (40.2)	240 (46.2)
After knowing about the Covid-19 vaccination, I will immediately do the vaccine	0 (0)	5 (1.0)	23 (4.4)	224 (43.1)	268 (51.5)
Before the Covid-19 vaccine, we must carry out screening	1 (0.2)	5 (1.0)	11 (2.1)	164 (31.5)	339 (65.2)
Information about the Covid-19 vaccination is easy to find	0 (0)	17 (3.3)	5 (1.0)	186 (35.8)	312 (60.0)

Table 4 presents each question concerning the practices of 520 respondents. The majority of respondents claim sometimes looking for information about various types of Covid-19 vaccines (78.7 %), always looking for information about vaccine side effects and the way to deal with it (56.9 %), always improving health by consuming nutritious food (47.1 %), always taking medicine when experiencing symptoms of cough, or runny nose when going to do the Covid-19 vaccination (47.3 %), sometimes stretching the arm muscles (81.9 %), always continuing to implement health protocols after getting the Covid-19 vaccine (89.6 %), very often doing light activities after the Covid-19 vaccination (54.4 %), always visiting the vaccine service site in good health (81.3 %), always following the doctor's recommendations when symptoms appear after the Covid-19 vaccine (46.9 %), always following the schedule for giving the second dose of vaccine (45.6 %), always looking for information about the effectiveness of the Covid-19 vaccine (53.5 %), always looking for information on the Covid-19 vaccine schedule (62.7 %), and always conducting health screening before the Covid-19 vaccine (42.2 %).

Table 4 Participant's practice about Covid-19 vaccine

Practice	Never (%)	Rarely (%)	Sometimes (%)	Very often (%)	Always (%)
Looking for information about various types of Covid-19 vaccines	10 (1.9)	12 (2.3)	409 (78.7)	56 (10.8)	33 (6.3)
Looking for information about vaccine side effects and the way to deal with it	19 (1.7)	30 (5.8)	42 (8.1)	133 (25.6)	296 (56.9)
Improving health by consuming nutritious food	10 (1.9)	21 (4.0)	20 (3.8)	224 (43.1)	245 (47.1)

Taking medicine when experiencing symptoms of cough, or runny nose when going to do the Covid-19 vaccination	18 (3.5)	10 (1.9)	34 (6.5)	212 (40.8)	246 (47.3)
Stretching the arm muscles, so they don't hurt	14 (2.7)	27 (5.2)	426 (81.9)	24 (4.6)	29 (5.6)
Continuing to implement health protocols after getting the Covid-19 vaccine	8 (1.5)	10 (1.9)	14 (2.7)	22 (4.2)	466 (89.6)
Doing light activities after the Covid-19 vaccination	16 (3.1)	31 (6.0)	19 (3.7)	283 (54.4)	171 (32.9)
Visiting the vaccine service site in good health	7 (1.4)	19 (3.7)	11 (2.1)	60 (11.5)	423 (81.3)
Following the doctor's recommendations when symptoms appear after the Covid-19 vaccine	5 (1.0)	18 (3.5)	31 (6.0)	222 (42.7)	244 (46.9)
Following the schedule for giving the second dose of vaccine	9 (1.7)	24 (4.6)	49 (9.4)	201 (38.7)	237 (45.6)
Looking for information about the effectiveness of the Covid-19 vaccine	7 (1.4)	25 (4.8)	29 (5.6)	181 (34.8)	278 (53.5)
Looking for information on the Covid-19 vaccine schedule	14 (2.7)	6 (1.1)	26 (5.0)	148 (28.5)	326 (62.7)
Conducting health screening before the Covid-19 vaccine	33 (6.4)	59 (11.3)	72 (13.8)	137 (26.3)	219 (42.2)

Table 5 shows multiple linear regression analysis for Covid-19 vaccine acceptance. Knowledge (b= 0.11, SE= 0.05, CI 95% = 0.01 to 0.21, p= 0.030), attitude (b= 0.08, SE= 0.03, CI 95% = 0.03 to 0.13, p= 0.003), and practices (b= 0.07, SE= 0.02, CI 95% = 0.03 to 0.10, p <0.001) affected Covid-19 vaccine acceptance. The unstandardized (b) value 0.11 indicates that a shift of 1 unit in knowledge is associated with an increase of 0.11 in Covid-19 vaccine acceptance. The unstandardized (b) value 0.08 indicates that a shift of 1 unit in attitude is associated with an increase of 0.11 in Covid-19 vaccine acceptance. The unstandardized (b) value 0.07 indicates that a shift of 1 unit in practices is associated with an increase of 0.07 in Covid-19 vaccine acceptance.

Table 5 Multiple linear regression results

Variable independent	Unstandardized (b)	SE	CI 95%		t	p
			Lower	Upper		
Knowledge	0.11	0.05	0.01	0.21	2.17	0.030
Attitude	0.08	0.03	0.03	0.13	2.99	0.003
Practice	0.07	0.02	0.03	0.10	4.00	<0.001

Discussion

Knowledge is a prominent fundamental factor in health behavior change [14]. However, in some instance, even though people are aware of the benefits of Covid-19 vaccination, they do not necessarily want to be vaccinated to prevent the pandemic. Knowledge is an idea that arises to obtain information and understand things people know to keep in mind so that they find new ideas[15, 16]. Knowledge is also one of

the factors that can affect one's perception upon understanding something. It is a factor that affects his or her perception[17]. It is possible that knowledge about the Covid-19 vaccine strongly affects individuals upon receiving the vaccine[18,19]. People around and friends also function as an effective message delivery to increase community knowledge, so an increase in knowledge leads to the increase in the willingness to do vaccination. Furthermore, encouragement from the surrounding environment, such as community group movements, is also a considerable factor for them to decide for vaccination. Then, it obviously affects their willingness to receive the vaccine[20].

A good attitude affects a good behavior as well. Between attitude and behavior, there must be one psychological factor in order for both to be consistent[21]. Human attitudes can demonstrate something good with good intentions to make it happen in the form of behavior, thus healthy lifestyle behavior is achieved[22,23,24]. Attitude consists of four stages of receiving, responding, valuing, and being responsible. It means that even though an individual shows a good attitude, the extent to which stage he or she reach will affect their motivation to change. Attitude represents readiness or willingness to act and is not the exercise of a particular motive[25]. In other words, the function of attitude is not yet an action (open reaction) or activity, yet a predisposition to behavior (action) or closed reaction. A good attitude without a good behavior does not prevent an individual from being exposed to Covid-19[26,27]. Attitude is a crucial determinant of behavior. It represents one's behavior pattern. An individual can guess how the response or action of others based on the problems or circumstances they face.

Behavior is formulated based 2 factors: external factors, which are environmental, and internal factors, such as perception, fantasy, suggestion, attention, and observation[28,29]. People who receive good information will obviously affect their perception of the Covid-19 vaccine[30,31]. The perception will affect their behavior towards the Covid-19 vaccine. A poor perception towards Covid-19 vaccine will lead to refusal to participate in the Covid-19 vaccination program. However, respondents receive good information and are willing to fulfill their role as a good community, by following the Covid-19 vaccination program to create herd immunity. A lot of people refer Covid-19 with negative association, such as infectious, dangerous, and deadly disease, so it can lead them to make behavioral changes for Covid-19 prevention, such as participating in Covid-19 vaccinations.

Conclusion

Respondents' comprehensive knowledge of the Covid-19 vaccine influence their acceptance of the vaccination program. They are well-informed about the safety, the side effects, and the effectiveness of vaccines in preventing Covid-19. The positive attitude of the community towards the Covid-19 vaccine affects the willingness to be vaccinated since attitude affects willingness to act. Positive behavior towards the Covid-19 vaccine program will help achieve herd immunity, so it provides indirect protection or group immunity for those who are not immune to the Covid-19 virus.

Conflict of Interest

None

Knowledge, Attitude, and Practices toward COVID-19 Vaccine Acceptance: A Cross-Sectional Study

ORIGINALITY REPORT

20%	17%	13%	5%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	theicph.com Internet Source	2%
2	Submitted to Academic Library Consortium Student Paper	2%
3	www.frontiersin.org Internet Source	2%
4	www.ncbi.nlm.nih.gov Internet Source	2%
5	journal.fkm.ui.ac.id Internet Source	1%
6	midwifery.iocspublisher.org Internet Source	1%
7	journal.unhas.ac.id Internet Source	1%
8	aassjournal.com Internet Source	1%
9	ilca.org Internet Source	1%

10	Bregasthian Bregashtian, Dr. Christian Herdinata S.E., M.M., CFP2. "The Effect of Perceived Ease of Use, Usefulness and Risk on Intention to Use the Go-Food Application in Surabaya and Sidoarjo", KnE Social Sciences, 2021 Publication	1 %
11	conference.juriskes.com Internet Source	1 %
12	www.slideshare.net Internet Source	1 %
13	bpjs-kesehatan.go.id Internet Source	<1 %
14	Submitted to Grand Canyon University Student Paper	<1 %
15	Submitted to Krida Wacana Christian University Student Paper	<1 %
16	L P P S Suardika, I G A Andani. "Analysis of the coverage of health facilities and distribution routes for COVID-19 vaccines at vulnerable Areas in Bandung City", IOP Conference Series: Earth and Environmental Science, 2022 Publication	<1 %
17	repository.unitri.ac.id Internet Source	<1 %

18	Megumi Adachi, Michio Murakami, Daisuke Yoneoka, Takayuki Kawashima et al. "Factors associated with the risk perception of COVID-19 infection and severe illness: A cross-sectional study in Japan", SSM - Population Health, 2022 Publication	<1 %
19	www.mdpi.com Internet Source	<1 %
20	Wahyu Sri Astutik, Reny Nugraheni. "Knowledge Level Analysis of Community stigma on ODP, PDP and COVID 19 patients through attitude in Kediri District", STRADA Jurnal Ilmiah Kesehatan, 2020 Publication	<1 %
21	Musha Chen, Yanjun Li, Jiaoshan Chen, Ziyu Wen, Fengling Feng, Huachun Zou, Chuanxi Fu, Ling Chen, Yuelong Shu, Caijun Sun. "An online survey of the attitude and willingness of Chinese adults to receive COVID-19 vaccination", Human Vaccines & Immunotherapeutics, 2021 Publication	<1 %
22	Reny Nugraheni, Wahyu Sri Astutik. "The Influence Of Giving Communication, Information And Education (KIE/IEC) Toward Pregnant Woman Behavior In Implementing	<1 %

Genital Hygiene", STRADA Jurnal Ilmiah Kesehatan, 2020
Publication

23	Malik Sallam, Mariam Al-Sanafi, Mohammed Sallam. "A Global Map of COVID-19 Vaccine Acceptance Rates per Country: An Updated Concise Narrative Review", Journal of Multidisciplinary Healthcare, 2022 Publication	<1 %
24	link.springer.com Internet Source	<1 %
25	www.yarraranges.vic.gov.au Internet Source	<1 %
26	www.iseas.edu.sg Internet Source	<1 %
27	www.jmveindia.com Internet Source	<1 %
28	www.sciencegate.app Internet Source	<1 %
29	Abdirazak Yusuf Ahmed, Mustafa Yusuf Ahmed, Fatima Abdi Saeed, Fahma Ali Saeed. "Level of Acceptance of COVID-19 Vaccine and Its Determinants among High Risk Groups for Severe COVID-19 Infection Living in Mogadishu Somalia", Health, 2021 Publication	<1 %

30	Fitria Istina Dewi. "Analysis of Covid-19 Vaccination Coverage in The Elderly in The Work Area of Cijayanti Puskesmas", Muhammadiyah International Public Health and Medicine Proceeding, 2021 Publication	<1 %
31	Kristianto Kristianto. "Participation Rate of Employees of RS X In The Covid-19 Vaccination Program to Break The Chain The Spread of Covid-19", Muhammadiyah International Public Health and Medicine Proceeding, 2021 Publication	<1 %
32	rubrikindonesia.com Internet Source	<1 %

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	Off		