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Original Research

The Relationship Between The Level Of Knowledge And Maternal Attitudes Towards Giving The Covid-19 Vaccine To Children Aged 6-17 Years In The Working Area Of The Enrekang City Health Center, Ranga Village

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Abstract

Background: Covid-19 is a disease caused by a new type of coronavirus (SARSCoV-2) at the end of 2019, in December, this outbreak was first detected in Wuhan, Hubei Province, China.The government has made various intervention efforts to overcome the Covid-19 Pandemic intervention efforts are carried out not only through the implementation of health protocols but also other interventions, namely vaccination. Based on the Indonesian Ministry of Health, the type of vaccine given to children aged 12-17 years is sinovac with a dose of 0.5 ml then the Pfizer-BioNTech type of COVID-19 vaccine is also available for everyone aged 12 years and over.
Objective: This study aims to determine whether there is a relationship between knowledge and maternal attitudes towards administering the COVID-19 vaccine to children aged 6-17 years in the working area of the health center in Enrekang city, Ranga village.
Methods: The research design used was Cross Sectional using cross-tabulation and frequency tests. This research was conducted July-August 2022 in Ranga village consisting of 19 respondents
Results: The results of the analysis obtained ρ = 0.000 where the value of ρ is smaller than the value of α = 0.05 which means there is a relationship between knowledge and maternal attitudes towards giving the covid-19 vaccine to children aged 6-17 years in the working area of the health center in Enrekang city, Ranga village.
Conclusion: Mother's knowledge and attitude are related to the status of the COVID-19 vaccine in children.

Keywords: Knowledge and Attitude; Covid-19 vaccine; Child

Introduction

Covid-19 is a disease caused by the novel coronavirus (SARSCoV-2) that emerged at the end of 2019. The outbreak was first detected in Wuhan, Hubei Province, China in December. Most of these pneumonia patients came from traders in a southern Chinese market in Wuhan. The World Health Organization officially named this disease Covid-19 (coronavirus disease 2019) and the name of the virus is SARS-CoV-2 (severe acute respiratory syndrome coronavirus). 90 positive cases of Covid-19 patients have been confirmed in various countries in Asia, Europe and Australia, and on January 30, 2020 the World Health Organization (WHO) declared it a public health concern of global concern.) (Mirnawati HiHamjah et al., 2022). Confirmed from Jakarta as many as two cases in the first Covid-19 case that spread in Indonesia on March 2, 2020 (Susilo et al., 2020). The public is expected to follow recommended health behaviors to ensure the virus does not spread and there are no more cases of transmission. But in practice, not everyone follows the policy of slowing the spread of the virus curve (Fadilah et al., 2020). Covid-19 not only affects adults, but also children and adolescents. A report from the Centers for Disease Control and Prevention (CDC) shows that children and adolescents are at higher risk of Covid-19-related complications (Anggreni, 2020).

The number of confirmed Covid-19 cases on April 30, 2022 worldwide is 510,270,667 confirmed cases and 6,233,526 deaths due to Covid-19 worldwide (WHO, 2022).The Covid-19 pandemic has been

going on since December 2019 until now, Covid-19 cases in Indonesia have reached 6,046,796 confirmed cases with a total number of deaths of 156,257 people on April 30, 2022, Indonesia is in 12th place with the highest Covid-19 cases with the first order is the United States with a work rate of 80,420,406 confirmed cases (Ministry of Health of the Republic of Indonesia, 2022) . Meanwhile, for the South Sulawesi region, the number of confirmed cases of Covid-19 reported on April 30, 2022, which was 143,443 confirmed cases, 2,472 cases died, and South Sulawesi was ranked 27th with Covid-19 cases with the first order of Aceh Province as many as 43,697 confirmed cases (Ministry of Health of the Republic of Indonesia, 2022). Meanwhile, for the region of Enrekang regency on April 30, 2022, there have been 966 confirmed cases and 48 deaths (Farm, 2022). Meanwhile, distribution data at the beginning of 2021 shows that when viewed from the age group, the number of confirmed Covid19 in Indonesia is 2.8% 0-5 years old, 9.4% 6-18 years old, 24.9% 19-30 years old, 29.5% 31-45 years old, 22.5% 46-59 years old and 10.9% ≥60 years old (COVID-19 Handling Task Force, 2021).

WHO is working with vaccine partners ACT-Accelerator Vaccine, the Coalition for Epidemic Preparedness Innovations (CEPI) and GaVi, to ensure equitable procurement and distribution of Covid-19 vaccines to countries regardless of income. . level. COVAX aims to secure at least 2 billion doses of Covid-19 vaccines by the end of 2021, 60% of which will be delivered to 92 low-income countries (Forman et al., 2021). To achieve this goal, equitable distribution must be designed and implemented. Various countries have now started implementing vaccinations, and according to data as of May 26, 2021, 1,489,727,128 people have been vaccinated worldwide. The Indonesian government itself has tried to meet vaccination needs with various programs, both government-to-government (G to G) and directly to vaccine manufacturers. Currently, Indonesia's vaccination coverage data as of May 25, 2022 includes 199,644,471 vaccinations, 166,290,758 two doses, and 42,734,668 three doses (Ministry of Health, 2022). Vaccinations for children are 21,170,271 for the first dose, 16,753,682 for the second dose, and 1,556 for the third dose (Ministry of Health, 2022). In South Sulawesi, the distribution of Covid-19 vaccines is generally 11,366,525 and for children there are even 582,583 children who have received Covid-19 vaccinations (Ministry of Health of the Republic of Indonesia, 2022). Also, in Enlecan County, 269,318 people were vaccinated against COVID-19 and 73,897 children were vaccinated (Ministry of Health, 2022).

From these results, it can be seen that vaccination coverage in Indonesia has not been fully implemented, considering that its implementation began in January 2021. Things to do before, during and after childhood vaccinations, including telling the doctor or nurse about allergies that the child may have. To prevent fainting and injuries associated with fainting, the child should sit or lie down during the vaccination and for 15 minutes after the vaccine is given. After Covid-19 vaccination, children will be asked to stay for 15-30 minutes so that they can be monitored (Centers of Disease Control, 2021).

The vaccination program for children aged 12 to 17 years is part of the Phase 3 vaccination program for vulnerable communities and the general public. The implementation of the Covid-19 vaccine for children aged 12-17 years follows the issuance of an Emergency Use Permit (EU) by the Food and Drug Supervisory Agency (BPOM). Parents wonder what kind of vaccines they can give their children. The safety level of Covid-19 vaccines for children is questionable, and parents are often nervous and worried about vaccinating their children with Covid-19 vaccines. The low knowledge and the amount of information circulating on social media are challenges for nurses and other health workers in socializing the Covid-19 vaccine (Goldschmidt, 2021). Nurses have a very important role in reducing parents' anxiety in giving the Covid-19 vaccine to their children, so we can continue to advocate for the community (A. Amanda, 2021).

The problem faced by Indonesia since the emergence of the discourse on vaccination is that there are still many people who do not want to be vaccinated. One of the factors that causes people to be reluctant to carry out vaccinations is the spread of hoax news that vaccines are dangerous to human health, vaccines contain pork oil, vaccines have tracking devices (chips), vaccines contain very high side effects, and can even cause death. This kind of hoax affects people and makes them afraid to be vaccinated. The Indonesian government has also received a lot of criticism for handling Covid-19 and this has lasted until the vaccination stage This is because the policy taken seems hasty without being accompanied by empirical evidence of the usefulness of vaccines. It is also impressed that there is an intention to seek economic benefits by forcing the use of this product with the use of the hands of power and state interests (Sukmana et al, 2021).

To overcome this challenge, it is necessary to increase the knowledge and attitudes of mothers towards vaccinating children, especially during the ongoing Covid-19 pandemic, where this doubt can affect mothers' intentions to vaccinate their children. Based on the collection of phenomena above, researchers are interested in conducting research on the relationship between knowledge and attitudes of mothers towards giving Covid-19 vaccines to children in the working area of the Puskesmas in Enrekang city, Ranga village.

Methods

Study Design

The type of research used is quantitative research using *a Cross Sectional* design. *Cross-sectional* research design is a study to study the dynamics of correlation between risk factors and effects, by means of approach, observational, or data collection. Cross-sectional research only observed once and measurements were made on subject variables at the time of the study (Notoatmojo, 2010). This study design aims to determine the relationship between knowledge and maternal attitudes towards giving the COVID-19 vaccine to children.

Samples/Participants

The research population is a generalized area consisting of objects or subjects that have certain qualities and characteristics that have been determined by researchers to be studied and conclusions drawn (Sugiyono, 2018). The population in this study amounted to 195 mothers who were in the working area of the Puskesmas Kota Enrekang in Ranga village.

Technical sampling in this study used *purposive sampling. Purposive sampling* is a sampling technique with certain considerations. This particular consideration, for example, the person is considered to be able to later know about what we expect, or maybe he is a ruler so that it will make it easier for researchers to explore the object / social situation under study (Bashar et al., 2019).

Instruments

The instrument used in this study was a questionnaire**.**

Data Collection

Data collection is a way for researchers to reveal or capture quantitative information from respondents according to the scope of research where researchers collect data by means of questionnaires and observations (Sujarweni, 2014).

Data Analysis

Data analysis of research results was carried out using SPSS version 22.0, one of the software that can be used to help process, calculate, and analyze data statistically (Sujarweni, 2014). Bivariate Analysis in this study is to determine whether there is a relationship between the Independent Variable (knowledge and attitude) with the Dependent Variable (administration of the COVID-19 vaccine in children).

Ethical Considerations

This research has been approved by the ethical institute of Megarezky University Makassar

Results

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Table 1 Characteristics of respondents in the Puskesmas work area Enrekang City Ranga Village, Year 2022 (n : 131)

Characteristics of Respondents	Frequency	Percentage
Age		
Age 20-25 years	27	20.6
Age 26-35 years	66	50.4
Age 36-45 years	38	29.0
Education		
SD	12	9.2%
SMP	46	35.1%
SMA	51	38.9%
BACHELOR	22	16.8%
Work		
Farmer	55	42.0%
Urt	42	32.1%
Wiraswasta	15	11.5%
Civil servants	19	14.5%

Age of child		
6-10 years	49	37.4
11- 17 years	82	62.6
Total	**131**	**100,0%**

Source: First date 2022

Bivariate Analysis

Overview of maternal knowledge of administering the COVID-19 vaccine to children

Table 2 Overview of maternal knowledge of the administration of the COVID-19 vaccine in children aged 6-17 years in the working area of the health center in Enrekang city, Ranga village (n: 131).

Tingkat pengetahuan	Frekuensi	Persentase
Kurang	50	38.2%
Cukup	56	42.7%
Baik	23	19.1%
Total	**131**	**100.0%**

Sumber : *Data primer 2022*

Table 3 Cross-tabulation of maternal knowledge on covid-19 vaccine administration on children aged 6-17 years in the working area of the health center in Enrekang city, Ranga village (n: 131)

		Observation of children's vaccine status		Total
		Belum	Already	
Knowledge questionnaire percentage results	Less	26	24	50
		19.8%	18.3%	38.2%
	Enough	6	50	56
		4.6%	38.2%	42.7%
	Good	2	23	25
		1.5%	17.6%	19.1%
Total		**34**	**97**	**131**
		26.0%	**74.0%**	**100.0%**

Sumber : *Data primer 2022*

Overview of mothers' attitudes towards giving covid-19 vaccines to children

Table 4 Overview of maternal attitudes towards giving COVID-19 vaccine to children aged 6-17 years in the working area of the Enrekang City Health Center, Ranga Village (N: 131)

Tingkat sikap	Frekuensi	Persentase
Positif	111	84.7%
Negatif	20	15.3%
Total	**131**	**100.0%**

Sumber : *Data primer 2022*

Table 5 Cross-tabulation of maternal attitudes towards administering the COVID-19 vaccine to children aged 6-17 years in the working area of the health center in Enrekang city, Ranga village (n: 131).

	Observation of children's vaccine status		Total
	Not yet	Already	

Percentage results of attitude questionnaire	Negative	13	7	20
		9.9%	5.3%	15.3%
	Positive	21	90	111
		16.0%	68.7%	84.7%
Total		**34**	**97**	**131**
		26.0%	**74.0%**	**100.0 %**

Sumber : *Data primer 2022*

The relationship between knowledge and attitudes of mothers towards giving the COVID-19 vaccine to children

Table 6 The relationship between knowledge and attitudes of mothers towards administering the COVID-19 vaccine to children aged 6-17 years in the working area of the Enrekangdesa Ranga City Health Center.

Mother's knowledge	**Observation of children's vaccine status**		**Total**	**p- Value**
	Already	**Not yet**		
Less	24 (18,3%)	26 (19,8%)	50 (38,2%)	,000
Enough	50 (38,2%)	6 (4.6%)	56 (42,7%)	
Good	23 (17,6%)	2 (1,5%)	25 (19,1%)	
Mother's attitude				
Positive	90 (68,7)	21 (16,0%)	111 (84,7%)	,000
Negative	7 (5,3%)	13 (9,9%)	20 (15,3%)	

Discussion

This research was carried out from July 21 to August 21, 2022, in the health center area of Enrekang city, Ranga village. The total population in this study was 193 mothers, sampling by Purposive sampling method where the number of samples taken in this study amounted to 131 sample mothers. Based on the results of research and data processing that has been carried out with the aim of determining the relationship between knowledge and attitudes of mothers towards giving the COVID-19 vaccine to children aged 6-17 years. The following is a description of the discussion of the research results.

Describe the characteristics of maternal response to the administration of the COVID-19 vaccine in children.

Age characteristics

Based on the results of research on the characteristics of the age of respondents with the highest category, namely the age of 26-35 years as many as 66 people (50.4%) and the lowest category, namely the age of 20-25 years as many as 27 people (20.6%). Researchers assume that the age of mothers is not related to the knowledge and attitudes of mothers towards giving the COVID-19 vaccine to their children, but at the age of 26-35 years is a fairly productive age in giving birth and most mothers give birth to their children aged 6-17 years at the age of 20-25 years, so most of the respondents I met were aged 26-35 years.

Research (Kolodziej, 2019) found that aging affects knowledge and attitudes. This suggests that age affects health knowledge and awareness. This instills cognitive understanding that the age group of children with good immune system has a lower risk of Covid-19 disease, and emotional responses to the decision not to be vaccinated against Covid-19. In this study (Tasnim, 2021), age was not related to willingness to be vaccinated against Covid-19.

Characteristics of education

Based on the results of the research conducted, it can be seen that the education category with elementary level as many as 12 people (9.2%), junior high school level as many as 46 people (35.1%), vocational / high school level as many as 51 people (38.9%), and undergraduate level as many as 22 people (16.8%). Researchers assume that the level of education is very influential on knowledge and one's attitude, the higher the education taken, the more knowledge gained so that it can affect a person's attitude and knowledge, the highest education of mothers in Ranga village is Senior High School / Vocational School because most of them are reluctant to continue their education due to access to remote

school locations so that many choose to marry rather than continue education (Amzal Mortin Andas et al., 2020; Andas et al., 2022; Mulyana et al., 2022).

Characteristics of work

Based on the results of the research conducted, it can be seen that the respondents' job categories were divided into four categories with a classification of 55 farmers (42.0%), Urt as many as 42 people (32.1%), self-employed as many as 15 people (11.5%) and civil servant categories as many as 19 people (14.5%) with a total number of respondents as many as 131 people. Researchers assume that a mother's employment status can affect the opportunities and time used to increase knowledge by increasing knowledge about the administration of the covid-19 vaccine in children and attention to the health of their children, mothers who work as farmers tend to lack attention or understanding of the covid-19 vaccine because they are busy gardening Unlike mothers who work as housewives, they usually work while watching TV Or read news about COVID-19 vaccines in children (Andas et al., 2023).

Characteristics of the child's age

Based on the results of the study, it can be seen that the age category of respondents' children was divided into two categories with an age classification of 6-10 years as many as 49 children (37.4%) and ages 11-17 years as many as 82 children (62.6%) with a total of 131 children. Researchers assume that with the age range of children 6-10 years, parents are still afraid to bring their children to the vaccination site because of the results of interviews that researchers conducted regarding the reasons why mothers do not vaccinate their children, according to the child's mother does not need to be vaccinated because the child is still very susceptible to vaccine side effects and the immune system is still strong against the COVID-19 virus (Prima et al., 2022).

Describe the mother's knowledge of administering the COVID-19 vaccine to children

The results of the research conducted can be found out the relationship between maternal knowledge of the administration of the COVID-19 vaccine in children aged 6-17 years, The results of statistical analysis of the crosstab test were obtained with the category of good knowledge as many as 25 people (19.1%) with children who have not been vaccinated as many as 2 people (1.5%) while children who have been vaccinated as many as 23 people (17.6%), can also be known the category of sufficient knowledge as many as 56 people (42.7%) with children who have not been vaccinated as many as 6 people (4.6%) While 50 vaccinated children (38.2%), it can also be known that the category of less knowledgeable as many as 50 people (38.2) with unvaccinated children as many as 26 people (19.8%) while vaccinated children as many as 24 people (18.3).

Describe the attitude of mothers towards giving the COVID-19 vaccine to children.

The results of research conducted on the relationship between maternal attitudes towards giving the COVID-19 vaccine to children aged 6-17 years, based on the results of statistical analysis of the crosstab test, can be known the category of positive attitudes as many as 111 people (84.7%) with children who have not been vaccinated as many as 21 people (16.0%) while children who have been vaccinated as many as 90 people (68.7%), can also be known the category of negative attitudes as many as 20 people (15.3%) with children who have not been vaccinated as many as 13 people (9.9%) while children who have not been vaccinated as many as 13 people (9.9%) while children who have not been vaccinated as many as 90 people (68.7%), can also be known the category of negative attitudes as many as 20 people (15.3%) with children who have not been vaccinated as many as 13 people (9.9%) while children who have not been vaccinated 7 people have been vaccinated (5.3%).

Analyze the relationship between knowledge and attitudes towards administering the COVID-19 vaccine to children.

The results of the analysis obtained a value of p = 0.120 where the value of p is smaller than the value of a = 0.05 then H1 is accepted. Which means that there is a relationship between knowledge and mothers' attitudes towards giving the covid-19 vaccine to children aged 6-17 years in the working area of the health center in Enrekang city, Ranga Village (Zuinoviana et al., 2022).

In accordance with what was said by (Notoatmodjo, 2010) which states that knowledge is basically an understanding of life obtained from information and media. Knowledge is the result of "knowing", and this occurs after sensing occurs through the five human senses, namely: the senses of sight, hearing, smell, taste, and touch. Most human knowledge is acquired through the eyes and ears. This is supported by Lawrence Green's opinion in (Notoatmodjo 2010) which states that the level of knowledge has a positive relationship with changes in behavioral variables.

Conclusion

Based on the results of research conducted under the title "The relationship between knowledge and attitudes of mothers towards giving the covid-19 vaccine to children aged 6-17 years in the working area of the health center in Enrekang city, Ranga Village" it can be concluded as follows:

Characteristics of respondents based on age, the average respondents are aged 26-35 years with the most categories of 66 people (50.4%), it can also be known that the education category with the highest level of education is the level of vocational / high school as many as 51 people (38.9%), characteristics based on occupation are the majority of respondents with jobs as farmers totaling 55 people (42.0%). It can also be seen that the age category of respondents' children was divided into two categories with an age classification of 6-10 years as many as 49 children (37.4%) and ages 11-17 years as many as 82 children (62.6%) with a total number of respondents as many as 131 children.

The category of good knowledge as many as 25 people (19.1%) with children who have not been vaccinated as many as 2 people (1.5%) while children who have been vaccinated as many as 23 people (17.6%), can also be known the category of sufficient knowledge as many as 56 people (42.7%) with children who have not been vaccinated as many as 6 people (4.6%) while children who have been vaccinated as many as 50 people (38.2%), can also be known the category of less knowledgeable as many as 50 people (38.2) with children who have not been vaccinated as many as 26 people (19.8%) While children who have been vaccinated as many as 24 people (18.3).

It is known that the positive attitude category is 111 people (84.7%) with 21 unvaccinated children (16.0%) while 90 vaccinated children (68.7%), it can also be known that the negative attitude category is 20 people (15.3%) with 13 unvaccinated children (9.9%) while 7 vaccinated children (5.3%).

It can be concluded that the relationship between knowledge and attitudes of mothers towards the administration of the COVID-19 vaccine can also be seen with the results of statistical analysis of the crosstab test in obtaining a value of p = 0.000 where the p value is smaller than the value of a = 0.05 then Ha is accepted. The results of the study proved that there is a relationship between knowledge and maternal attitudes towards giving the COVID-19 vaccine to children aged 6-17 years.

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