

IDENTIFICATION OF FACTOR AFFECTS LEVEL OF PARENTAL ANXIETY TOWARDS COVID 19 VACCINATION IN CHILDREN

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ABSTRACT

The covid 19 virus has affected children, and adolescents and children now account for more than a fifth of new cases in parts of the world. Vaccination is carried out from all ages, including children over 6 years old. But the challenge is about how parents can vaccinate their children. This is important to do because parents are the key in all decision-making determinants in children. In addition, this study is important to be carried out as an evaluation material in achieving the coverage of the covid 19 immunization target in children. The purpose of this study was to identify actors who influenced the level of parental anxiety towards covid 19 vaccination in Children. This research method uses descriptive analysis with a cross sectional study approach. The population and sample are parents who have children aged 6-18 years. This study used an accidental sampling method with the number of 30respondents of parents who had children aged 6-18 years. The research sites are located in several elementary schools in the Malang city area that have carried out covid 19 vaccinations. The results of this study showed that the age of <50 years old parents, namely 16 people (53.3%), of which 18 people (60%) did not experience anxiety. Ibu household (IRT) which was 17 respondents (56.7%) with a mild anxiety level of 5 people, respondents were dominated by those with 2 children, namely 21 people (70%) consisting of 4 people experiencing severe anxiety. Conclusion: The results show that parents who have psychological factors are related to the level of parental anxiety towards covid 19 vaccination in children.

Keywords: Covid-19, Anxiety, Parents, Vaccination in Children

INTRODUCTION

The Covid 19 case, which first appeared in Wuhan China, is now a worldwide case. The development of cases is increasing day by day. Nearly more than 6 million laboratory-confirmed cases and more than 370,000 deaths were reported worldwide, with 33,896 confirmed cases and 262

deaths in the United Arab Emirates (UAE). The covid 19 virus can be transmitted quickly and has now become several types of covid 19 variants. Several measures have been taken in order to reduce the development of the covid 19 incidence rate including travel restrictions imposed by the

government, online enforcement for students, tightening social distancing and the isolation process. One of the actions currently promoted by the government is to vaccinate all people and all age levels (Ackerson, B. K., Sy, L. S., Glenn, S. C., Qian, L., Park, C. H., Riewerts, R. J., & Jacobsen, S. J. 2021).. The covid 19 virus has affected children, and adolescents and children now account for more than a fifth of new cases in parts of the country around the world. Although the infection is asymptomatic, many children have been hospitalized and thousands suffer from multisystem inflammatory syndrome in children. On the other hand, children experience stress due to online schooling, health and social service disruptions, family illnesses, and social isolation (Apriany, D. 2013)..

The process of reducing the incidence of covid 19 transmission that is being carried out is vaccination. This vaccination is carried out from all ages, including children over 6 years old. This vaccination program aims to provide immunity to a person's body against the covid 19 virus. But the challenge is about how parents can vaccinate their children. Some of the cases that arise are due to the fact that the transmission originated not from themselves but could have come from family or people around their neighborhood (Astuti, F. P., & Suwardi, S. 2021).

Monitoring of vaccination coverage continues to be carried out in an effort to see the extent of vaccination coverage, especially in children and the possibility of an increase in the need for vaccine collection in children is very important (Ackerson et al., 2021). Vaccination for children must involve parents as decision makers.

So it is important for parents to understand the importance of the covid 19 vaccination that will be given to their children.

Some of the factors behind parents' concerns and anxiety about vaccination are considerable. Several surveys were conducted in the UK, which showed that 48.2% of parents or guardians had confidence that administering the covid vaccination would be able to protect their children and family members from exposure to the covid 19 virus. A program that will be carried out to increase the target of immunization coverage in children aged 6 to 11 years is to reach 26.8 million. *The Indonesian Technical Advisory Group on Immunization (ITAGI)* issued recommendations to gradually accelerate immunization coverage in children with vaccination coverage criteria of dose 1 above 70%. Data shows 8.8 million people from 11 provinces that have met these criteria including Banten, DI Yogyakarta, DKI Jakarta, West Java, Central Java, East Java, East Kalimantan, Riau Islands, West Nusa Tenggara, North Sulawesi, and Bali. This shows that immunization coverage still needs to be achieved (Kominfo, 2021).

Due to the fact that cases occurred in Indonesia, the government issued a policy to overcome the Covid-19 pandemic (Fuadi & Suharto, 2021). In addition to the program, there are concerns about the safety, effectiveness, and side effects of the COVID-19 vaccine. Parents are actively looking for information related to vaccinations in children both directly and from social media. This will affect parents' perception and acceptance of vaccinating their children (Velavan et al., 2020).

The success of vaccination requires cooperation including the role of parents of students. The role of parents as mentors, educators, custodians, developers and supervisors. Maintain and ensure the child to implement a clean and healthy life (Kurniatillah et al., 2022).

Adaptive coping strategies in the family are a protective factor for families who experience anxiety in vaccinating. A person's beliefs have a psychological influence on their behavioral response (Brown et al., 2020). The anxiety response is an overflow of common feelings experienced by parents when there are health problems in their child. Some of the causes that can increase anxiety are related to the presence of accompanying chronic diseases, the concept of unpleasant care (caring), the economic level of the family, all of which will have an impact on increasing the anxiety response of parents, especially in parents who are less informed about their children's illnesses related to covid 19 vaccination (Apriany, 2013).

Vaccine safety is a source of confidence to maintain public confidence in vaccines (Danis et al., 2020). The existence of a condition of occurrence of side effects or KIPI (Post-Immunization Follow-up Events) from reactions due to vaccine products is a matter of concern for parents regarding side effects or follow-up events after immunization (Sari, 2021). The role of parental stress is also a determinant of a child's vaccination decision and child behavior problems (Calvano et al., 2021).

This study aims to determine the factors that affect the level of Parental Anxiety in Doing Covid 19 Vaccination in Children. This is important to do

because parents are the key in all decision-making decisions in children. In addition, this study is important to be carried out as an evaluation material in achieving the coverage of the covid 19 immunization target in children.

LITERATURE REVIEW

Coronavirus disease 2019 (covid-19) is an infectious disease caused by a new type of coronavirus. The disease began with the emergence of pneumonia cases of unknown etiology in Wuhan, China (Keputusan Menteri Kesehatan Republik Indonesia, 2020).

Based on current epidemiological and virological studies, it is proven that COVID-19 is mainly transmitted from symptomatic people to other people who are in close proximity through droplets. Droplets are water-filled particles with a diameter of $>5-10 \mu\text{m}$. Droplet transmission occurs when a person is at close proximity to someone who has respiratory symptoms so that the droplets are at risk of hitting the mucosa or conjunctiva.

Vaccination is a procedure for administering the covid 19 vaccine in order to minimize the occurrence of exposure to the disease. The mechanism of action of vaccines on our body is by means of vaccines being introduced into a person's body by attenuation, then the vaccine will stimulate the formation of immunity to certain diseases in a person's body. The body will recognize the disease-carrying virus or bacteria, recognize and know how to fight it (Kementrian Kesehatan RI, 2021).

Parents' anxiety regarding the covid 19 vaccination as a result of ignorance in the face of something new in this case is the

Covid-19 virus which causes various kinds of reactions. The changes that occur give rise to different responses due to system changes due to the Corona virus so that everyone must adapt and adjust patterns from normal conditions to anxiety.

This anxiety is the result of several things including social isolation which is a condition of limiting movement and feelings so that the inability to perform daily functions (Khofiyah & Cahyani, 2021). In addition, psychological factors, where in dealing with stressors, having a person's ability, and ability to adapt are influenced by the support system of people around

RESEARCH METHODS

Study Design

This type of research uses descriptive with a *cross-sectional* study research design which is a study that studies the dynamics of correlation or relationship between free variables and bound variables after a certain period. This study identified the level of parental anxiety towards covid 19 vaccination in children. This study used *an accidental sampling* method to collect data by distributing questionnaires with a span of 1 week. The sample in the study was taken with a minimum number of 30 respondents of parents who had children aged 6-18 years. The research sites are located in several elementary schools in the Malang city area that have carried out covid 19 vaccinations. The research time will be conducted in April 2022 to April 2023.

Inclusion Criteria

The population in this study were parents who had children

aged 6-18 years, children had been given covid 19 vaccination, respondents were willing as respondents.

Instruments

The research instrument used in the study used the HARS questionnaire, which includes demographic data including name, age, gender, the HARS questionnaire consists of feelings of anxiety, fear, symptomatic symptoms, etc. HARS score 0: Never, 1 (sometimes), 3 (frequent), always (4) Interpretation of anxiety levels <6-14 (No anxiety), 14-20 (Mild anxiety), 21-27 (Moderate anxiety) 28-41 (Severe anxiety).

Data Analysis

Data analysis was performed using Spss Statistics 20.0. The demographic data in this study consisted of age, parental occupation, number of children, child sex, occupation, child age presented in the form of frequency distribution. The level of anxiety of parents is categorized into 3 categories, namely the level of mild, moderate, severe anxiety. The bivariate analysis used is the *chi square* test, because the variables to be studied are categorical (nominal and ordinal).

RESULTS and DISCUSSION

From table 1 below it can be seen that most parents are < 50 years old (53.3 %). Most of the samples were IRT (56.73%). Most of the samples had 2 children (70.0%). Most of the sample had children aged 11 (46.7%). Most of the sample had daughters (73.3%). Most samples had a high level of knowledge (90.0%), moderate vaccination side effect factor (40.0%), high vaccination safety factor (40%), moderate psychological factor (63.3%) and non-anxious anxiety level (60%).

Table 1. Characteristics of respondents to parents' anxiety levels in covid vaccination in school-aged children

Variabel	Category	Frekuenas	Prosentase
Age of Parents	< 50	16	53.3
	> 50	14	46.7
Work	Guru	5	16.7
	IRT	17	56.7
	Farmer	1	3.3
	PNS	3	10
	Private	4	13.3
Number of Children	1	3	10
	2	21	70
	3	4	13.3
	4	1	3.3
	5	1	3.3
Children's Age	7	6	20
	8	5	16.7
	9	5	16.7
	11	14	46.7
Child Gender	Man	8	26.7
	Woman	22	73.3
Knowledge Level	Keep	3	10
	Tall	27	90
Side Effects of Vaccina	Low	11	36.7
	Keep	12	40
	Tall	7	23.3
Vaccination Safety	Low	10	33.3
	Keep	8	26.7
	Tall	12	40
Psychological Factors	Low	3	10
	Keep	19	63.3
	Tall	8	26.7
Anxiety Levels	Not Anxious	18	60
	Mild Anxiety	8	26.7
	Severe Anxiety	4	13.3

Table 2. Relationship faktor parental anxiety on covid vaccination in school-aged children

Variable		Anxiety Levels			p Value	Toconclude
		Not Anxious	Mild Anxiety	Severe Anxiety		
Age of Parents	< 50	9	5	2	0.832	Unrelated Significantly
	> 50	9	3	2		
Work	Guru	3	1	1	0.384	Unrelated Significantly
	IRT	11	5	1		
	Farmer	0	0	1		
	PNS	2	1	0		
	Private	2	1	1		

Number of Children	1	3	0	0	0.303	Unrelated Significantly
	2	10	7	4		
	3	4	0	0		
	4	0	1	0		
	5	1	0	0		
Children's Age	7	3	2	1	0.706	Unrelated Significantly
	8	3	2	0		
	9	3	2	0		
	11	9	2	3		
Child Gender	Man	6	2	0	0.392	Unrelated Significantly
	Woman	12	6	4		
Knowledge Level	Keep	1	0	2	0.015	Significantly Related
	Tall	17	8	2		
Side Effects of Vaccination	Low	10	1	0	0.02	Significantly Related
	Keep	6	5	1		
	Tall	2	2	3		
Vaccination Safety	Low	10	0	0	0.004	Significantly Related
	Keep	5	3	0		
	Tall	3	5	4		
Psychological Factors	Low	3	0	0	0.002	Significantly Related
	Keep	15	3	1		
	Tall	0	5	3		

From the table above, it can be seen that there is no significant relationship between the variables of age, number of children, gender, occupation of parents with anxiety

levels, There is a significant relationship between variables of knowledge level, side effects of vaccination, and psychological factors with anxiety levels.

Table 3. Factors affecting parents' anxiety levels towards covid 19 vaccination in children

Model	Estimation	Std Error	Forest	Itself
Vaccine Knowledge	-.063	1.453	0.002	0.966
Vaccine Side Effects	1.250	0.787	2.524	0.112
Vaccine Safety	1.862	1.083	2.955	0.086
Psychological	2.964	1.268	5.464	0.19

Based on the table above, it can be seen that the highest *wald* value was obtained in the Psychological Factor variable of 5.464 (sig. 0.019). This means that psychological factors have the most (dominant) influence on anxiety levels.

The results of the study found that respondents were dominated by parents <50 years, namely 16 people (53.3%), of whom 18 people

(60%) did not experience anxiety. Anxiety is a feeling that is naturally shared by each individual. Anxious is reminiscent of a stressful and threatening situation. But anxiety must be controlled. If anxiety persists, it will affect daily activities. However, each person's level of anxiety varies depending on the trigger and how the individual copes with the situation (Zukmadani et al., 2020).

Of all age groups, 16 respondents experienced severe anxiety in the elderly age of <50 years. These results are in line with research conducted by (Karpman et al., 2020) which states respondents who experience severe anxiety are dominated by those in the age group of 20-29 years and the female sex. The results of the *chi square* test showed that the value of the parental age category was a *p-value* of 0.832. Thus, it can be interpreted that there is no relationship between the age of the parents and the level of parental anxiety about the covid 19 vaccination in children.

In this study, it was found that the respondents who experienced the most anxiety had a job as a housewife (IRT) were 17 respondents (56.7%) with a mild anxiety level of 5 people. These results are not in line with research (Astuti & Suwardi, 2021) which states that those who experience severe anxiety are those who work in the private sector. The results of the *chi square* test showed that the work value was a *p-value* of 0.384. Thus, it can be interpreted that there is no relationship between work and the level of anxiety of parents about covid 19 vaccination in children.

The results of this study showed that respondents were dominated by those with 2 children, namely 21 people (70%) consisting of 4 people experiencing severe anxiety. The results of the *chi square* test showed that the value of the number of children was a *p-value* of 0.303. Thus, it can be interpreted that there is no relationship between the number of children and the level of parental anxiety about covid 19 vaccination in children.

The results of the study found

that respondents were dominated by 11-year-olds, namely 14 people (46.7%), of whom 9 people did not experience anxiety. Harlock explains anxiety is a form of mixed feelings between anxiety, worry, and other less pleasant emotions (Putri et al., 2021). Of all the child age groups, the respondents who experienced the most severe anxiety were 3 children aged 11 years. The results of the *chi square* test showed that the value of the child's age category was a *p-value* of 0.706. Thus, it can be interpreted that there is no relationship between the age of the child and the level of parental anxiety about the covid 19 vaccination in children.

In this study, it was found that parents who had a high level of knowledge were 27 respondents (90%) with a level of non-anxious anxiety of 17 people, mild anxiety of 8 people, and severe anxiety of 2 people. The results of this study are in line with research [21] states that there is a significant relationship between knowledge levels and anxiety levels (*p-value* 0.03 or < 0.05). The more information about COVID-19 that a person receives, the more psychosomatic symptoms that are caused by tension, anxiety, and panic that are felt. The results of the *chi square* test show that the level of knowledge is a *p-value* of 0.015. This explains that the problem of knowledge level is related to the level of anxiety of parents towards covid 19 vaccination in children.

The results of this study showed moderate vaccination side effects as many as 12 respondents (40%) with a level of non-anxious anxiety of 6 people, mild anxiety of 5 people, and severe anxiety of 1 person. The results of this study are in line with research [22] that

anxiety occurs during the COVID-19 pandemic and is also felt when there is a vaccination program in the community. The source of public concern regarding the covid 19 vaccine is about the safety and efficacy of the vaccine, the side effects of the vaccine. The results showed that there was an association of willingness to vaccinate with anxiety (p -value 0.001) [18]. The results of *the chi square* test showed that the level of side effects of vaccination was a p -value of 0.02. This explains that the problem of vaccination side effects is related to the level of anxiety of parents towards covid 19 vaccination in children.

In this study, it was found that the safety of vaccination was categorized as high as many as 12 respondents (40%) with a level of anxiety not anxious 3 people, mild anxiety 5 people, and severe anxiety 4 people. The results of this study are in line with research [23] stating that vaccination-related anxiety is not related to age, gender, and occupation and this is in accordance with the results of the study which states that respondents' anxiety about Covid 19 vaccination is more related to the security of the vaccine. The results of *the chi square* test showed that the safety of vaccination was a p -value of 0.004. This explains that the safety of vaccination issues is related to the level of anxiety of parents towards covid 19 vaccination in children.

CONCLUSION

The results of this study showed that there were 18 respondents (60%) with a level of non-anxious anxiety, 3 people with 3 people with mild anxiety, and 1 person with severe anxiety. The

results of the *chi square* test showed that the psychological factor was a p -value of 0.002. This explains that the problem of psychological factors is related to the level of anxiety of parents towards covid 19 vaccination in children.

Suggestion

The next suggestion for researchers is that researchers can develop research results into educational science and nursing practice in improving the service and quality of nursing care. Advice to parents is expected to be a reference for data and information for parents that psychological factors have a contribution related to parents' decisions in vaccinating against COVID 19.

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