

Research Article

Identification of Parental Efforts in the Prevention of COVID-19 Infection in Children

Reni Ilmiasih* and Juwitasari

Faculty of Health Science, Muhammadiyah Malang University

ORCIDReni Ilmiasih: <https://orcid.org/0000-0001-7034-1941>**Abstract.**

COVID-19 is a global pandemic that has an impact on various aspects of life, one of which is the health of children. Children's behavior in preventing transmission of COVID-19 needs to be controlled by parents. Reports of an increase in the number of infections in children, apart from the immune system of children who are still vulnerable, also need to be investigated for other causes, namely the efforts of parents to protect against transmission. Behavior and infection control efforts at home greatly affect the prevalence of virus transmission. The purpose of this study was to identify the efforts of parents in preventing COVID-19 infection in children in the New Normal era. This research was descriptive research. The population in this study were parents who had children aged 0-18 years. The sampling technique used was incidental sampling, and data analysis was done through frequency distribution. The results of the study found that the efforts of parents in preventing COVID-19 infection were mostly in the moderate category. This may be related to the level of parental education, the factor of domicile in the Malang Raya area, which has almost the same characteristics, the level of income, and the number of children. These three demographic factors have become a philosophy in efforts to prevent COVID-19 infection in children by parents.

Keywords: infection, Covid-19, children, prevention efforts, parents, philosophyCorresponding Author: Reni Ilmiasih; email: reni@umm.ac.id**Published** 8 March 2023

Publishing services provided by Knowledge E

© Ilmiasih and Juwitasari. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the ICMEDH Conference Committee.

1. Introduction

The Covid-19 pandemic that is being faced by the world is no exception for the Indonesian nation, which has had a severe impact on health problems, including the health of children. The impact on the economic situation resulting in the worsening of the health status of children, both an increase in infection rates and the impact on children's health status due to nutritional problems experienced by children due to the declining economic status of the community due to the pandemic (1). The impact of the economic downturn has reduced purchasing power, increasing malnutrition (2–5). The saturation of this condition also results in mental problems in parents which has an impact on children where children and parents experience stress, decreased parental attention due to saturation of social and economic changes and neglect in parenting (5–9).

OPEN ACCESS

The number of cases of Covid-19 infection has been reported to have increased significantly, reaching a fairly high number. From March-July 2020 the Indonesian Pediatrician Association noted: 2,712 children tested positive for COVID and 51 died. The number of suspected COVID-19 in children is 7,633 with 290 deaths. 70% of those who died were children under 6 years old. This number exceeds several countries including India, Myanmar, and Pakistan (10). The incidence of Covid in children in several countries with lower middle economic status, such as Kenya, North Africa, Chile, and northern Brazil, is obtained by an average of 2-3% of the confirmed positive population. On average, it is experienced by children under the age of 10 years, but the severity and signs of symptoms are lighter than in adults (11).

Children's age is a group that is vulnerable to the possibility of spreading disease because of an immature immune system, cognitive development at every age level that requires special handling in understanding and behaving in a healthy life so that more efforts and the role of parents are needed (12). During the pandemic, there are many changes and adaptations to health behavior that make parents also experience many obstacles. Parents often experience anxiety and stress with pandemic situations, so it is possible for parents to neglect their role in protecting against COVID-19 infection or may otherwise show excessive behavior so that children become stressed and may even experience violent behavior (6). In this crisis and prolonged stress, parents feel incompetent in parenting and are dissolved in prolonged stress which can reduce and disrupt, and even stop the parenting role due to a stressful situation called parenting burnout (7). Specific care and guidelines in special situations such as a pandemic are needed to deal with stress and maintain good relationships and parenting (9). In general, people still need accurate information from trusted health sites to increase knowledge so that they can practice it for their families (13).

The spread of Covid infection in children requires special efforts and it is necessary to study compliance strategies with health protocols. There have been many educational media provided by the government and the private sector, but the number of cases of Covid is still increasing. One of the possible causes is the lack of protection or the failure of parents and family and perceptions in responding to Covid and even the failure of the role of parents in facing the pandemic crisis (7). The demographic perspective of parents regarding education, place of residence, number of children, occupation, income, and place of residence also has the opportunity to contribute to behavior and become a philosophy in efforts to prevent COVID-19 in children.

Research on the role of parents in preventing Covid in children has not been done much, some studies are still discussing health problems that occur in children and

parents during the pandemic, so researchers feel the need to explore how parents are trying to prevent Covid transmission in children in the new normal. The general purpose of this study is to describe the efforts of parents in preventing Covid infections in children in the new normal era from a demographic perspective.

2. Methods

The research design used is descriptive research. In this design, the researcher identifies and provides a clear description of the object (14) This research will result in the identification of efforts to prevent the transmission of Covid in children. The research site used in this study is the Malang Raya area and outside Malang. The population in the study were all parents who had children aged 0-18 years. The sample in this study is parents with school-aged children who are willing to be respondents in the Malang Raya area and outside the Malang Raya area. The sampling technique used was accidental sampling. The dependent variable in this study is the identification of parents' efforts in preventing Covid infection in children. Research instrument in the form of demographic data questionnaires and questions on prevention efforts with a Likert scale. The research procedure begins with licensing, making a questionnaire google form, Dissemination of questionnaires through WhatsApp groups, and data processing and analysis were carried out. Data analysis used descriptive analysis in the form of frequency distribution and average value (15).

3. Result

The results of the study obtained demographic data and special data in the form of parents' efforts in preventing Covid-19 infection in children from a total of 100 respondents who filled out a questionnaire using a google form. General data in the form of parents' age, parents' education, parents' occupations, domicile or residence, parents' income, and the number of children.

TABLE 1: Average Age of Respondents.

	Minimum	Maximum	Average	Most widely
Father	30 years	57 years old	40 years	33 years old
Mother	26 years	56 years old	38 years old	41 years old

Table 1 shows the average age of parents as respondents where the average age of the father is 40 years and the average age of the mother is 38. The most frequent

age of the father is 33 years which is the age of young adults and the frequency of the mother's age is 41 years. of a total of 100 respondents. The most common age in the father is younger than the age most often in the mother. A small percentage of the father's or mother's age is not listed because they are dead or divorced. The youngest age for father and mother is young adult age and the maximum age for father and mother is classified as old age because they are more than 55 years old.

Figure 1: Frequency Distribution of Respondents Based on Parents' Education Level.

Data on the frequency distribution of the respondent's education level as shown in Figure ?? shows that more than half of the father's education is undergraduate and half of the mother's education is undergraduate, both academic and applied. The father's highest education is a doctoral degree and the mother's highest education is a master's or specialist. A small part, namely 1 respondent whose father has elementary education and the lowest education of mother is high school or equivalent. There was one respondent, both father, and mother, who did not fill in the education level because they had died.

Figure 2: in the data above shows the variation in the work of parents, both father, and mother.

The results above show that almost all fathers work as civil servants or non-civil servants, while more than half of mothers work as civil servants and non-civil servants and almost half of the mothers as housewives. The work of parents is a small part of health workers such as doctors, nurses, and midwives. A few others are teachers and lecturers.

Figure 3: Frequency distribution of respondents based on the income of the father and mother.

Parents' income data as depicted in Figure ?? shows that both fathers and mothers have the largest percentage of income between 2.5-5 million. The percentage of fathers who earn in this range is more than half of the total number of respondents while mothers earn almost half of them in the same range. The income is in the UMR range in the Malang area. Mother's income in the next percentage describes the lowest income between 0-1 million as much as 34%. Only a small part of both father and mother earns 10 million and above.

Figure 4: Frequency distribution of respondents based on domicile.

Figure 5: Distribution of Respondents Frequency by Number of Children in the Family.

The results of the frequency distribution of respondents based on the diagram above shows the domicile of the respondents that there is an equal percentage of

respondents from the Malang City and Malang Regency areas, namely almost half of the respondents are from Malang City and almost half of the respondents are domiciled in Malang Regency. The rest a small part comes from Batu City and outside Malang Raya. The data diagram in Figure ?? above shows the number of children in a family where most of them have more than one child and only a small number of families with one child. The number of children varies from 1 to 5 children and the largest number is families with 2 children.

Figure 6: Frequency Distribution of Parental Efforts in Preventing Covid 19 Infection in Children.

Figure ?? shows the efforts of parents in preventing Covid-19 infection in children, more than half of them are in the medium category and almost half are high and a small part is in the low effort category.

4. Discussion

Identification of parental efforts made in preventing the spread of Covid-19 infection in children aged 0-18 years was carried out by analyzing a questionnaire consisting of 35 questions with indicators, efforts to implement health protocols, efforts to create a comfortable atmosphere, and efforts to fulfill nutrition. The results show the efforts made by parents at the highest percentage as shown in diagram 4.7, which is in the medium category. This is possibly related to the demographic data on the level of education where the data shows that the level of education is more than half of both the father's and mother's education level is undergraduate level. At this level of education, it is categorized as beginner higher education whereas at the level of undergraduate higher education in the general mastery of concepts that have not become a philosophy of thought or belief in taking action (16). It is possible that this educational factor affects the behavior of parents even though they know how to prevent Covid infection in children but are not fully related to deep beliefs or a philosophy that leads to behavior that is not yet fully good. This shows that there is still a need for strengthening in providing the right information by health workers to increase knowledge and behavior (13) even though they are highly educated.

Another factor that may be related to the behavior of parents' efforts in preventing Covid-19 infection in children in the moderate category is income where the data states that the income of fathers and mothers is at most between 2.5-5 million. This is the regional minimum wage range in the Malang Raya area where this income will affect the fulfillment of needs if it is associated with infection prevention needs that need to provide high protein intake and varied fruit consumption which relatively requires

more financial readiness, including the purchase of health protocols such as purchasing needs. Masks or soap substitutes that are commonly prepared are hand sanitizers and face seals (11). This income is also risky if it is associated with the number of children where most of the respondents have more than one child which of course will greatly impact the fulfillment of additional needs in fulfilling high protein nutrition and health protocol requirements. Protein needs in children are needed in the growth process, especially in preventing infection (17). The domicile of the respondents where 33% came from the city of Malang and the next 33% came from the district of Malang the Malang Raya area which is possible to have the same policies in the health protocol and the same culture so that the possibility is related to the same understanding, perception, and behavior in the community, including behavior. the community in preventing the transmission of Covid-19 to children (11).

A small proportion of respondents with high preventive behavior is due to educational factors whereas a small proportion has Masters's and Doctoral education. More specifically, a small part of the work of parents is health workers such as doctors, nurses, and midwives where they have the development of information, understanding, and more awareness in handling and preventing Covid-19, including children (12). A small proportion of respondents also have a supportive income in the high-income category of more than 10 million which allows better fulfillment of physical needs such as high protein nutrition and fulfillment of a variety of fruit as a source of vitamins and antioxidants as well as other supplements as an effort to increase children's immune system (18).

5. Conclusions

The results of the study on the identification of parental efforts in preventing Covid 19 infection showed that most of them were in the category of moderate efforts, this was associated with a demographic perspective such as parental education, income, number of children more than one and domiciles around Malang Raya which have similar policies, perceptions, culture, and behavior. This demographic factor becomes a philosophy related to efforts to prevent COVID-19 infection in children by both parents.

References

- [1] Yoshikawa H, Wuermli AJ, Britto PR, Dreyer B, Leckman JF, Lye SJ, et al. Effects of the Global Coronavirus Disease-2019 Pandemic on Early Childhood Development:

- Short- and Long-Term Risks and Mitigating Program and Policy Actions. *J Pediatr*. 2020 Aug;223(1):188–93.
- [2] Handu D, Moloney L, Rozga M, Cheng F. Malnutrition Care during the COVID-19 Pandemic: Considerations for Registered Dietitian Nutritionists Evidence Analysis Center [Internet]. *J Acad Nutr Diet*. 2020. <https://doi.org/10.1016/j.jand.2020.05.012>.
- [3] Headey D, Heidkamp R, Osendarp S, Ruel M, Scott N, Black R, et al.; Standing Together for Nutrition consortium. Impacts of COVID-19 on childhood malnutrition and nutrition-related mortality [Internet]. *Lancet*. 2020 Aug;396(10250):519–21.
- [4] Moore SA, Faulkner G, Rhodes RE, Brussoni M, Chulak-Bozzer T, Ferguson LJ, et al. Impact of the COVID-19 virus outbreak on movement and play behaviours of Canadian children and youth: a national survey. *Int J Behav Nutr Phys Act*. 2020 Jul;17(1):85.
- [5] Zwanka RJ, Buff C. COVID-19 Generation: A Conceptual Framework of the Consumer Behavioral Shifts to Be Caused by the COVID-19 Pandemic [Internet]. *J Int Consum Mark*. 2020;0(0):1–10.
- [6] Brown SM, Doom JR, Lechuga-Peña S, Watamura SE, Koppels T. Stress and parenting during the global COVID-19 pandemic. *Child Abus Negl*. 2020.
- [7] Griffith AK. Parental Burnout and Child Maltreatment During the COVID-19 Pandemic. *J Fam Violence*. 2020.
- [8] Ransing R, Adiukwu F, Pereira-Sanchez V, Ramalho R, Orsolini L, Teixeira AL, et al. Mental Health Interventions during the COVID-19 Pandemic: A Conceptual Framework by Early Career Psychiatrists. *Asian J Psychiatr*. 2020 Jun;51(April):102085.
- [9] Romero E, López-Romero L, Domínguez-Álvarez B, Villar P, Gómez-Fraguela JA. Testing the effects of COVID-19 confinement in Spanish children: The role of parents' distress, emotional problems and specific parenting. *PsyArXiv Prepr*.
- [10] Kemenkes RI. *Profil-Kesehatan-Indonesia-Tahun-2020.pdf*. 2020.
- [11] Zar HJ, Dawa J, Fischer GB, Castro-Rodriguez JA. Challenges of COVID-19 in children in low- and middle-income countries [Internet]. *Paediatr Respir Rev*. 2020 Sep;35:70–4.
- [12] Klein JD, Koletzko B, El-Shabrawi MH, Hadjipanayis A, Thacker N, Bhutta Z. Promoting and supporting children's health and healthcare during COVID-19 - International Paediatric Association Position Statement. *Arch Dis Child*. 2020 Jul;105(7):620–4.

- [13] Li W, Liao J, Li Q, Baskota M, Wang X, Tang Y, et al.; COVID-19 Evidence and Recommendations Working Group. Public health education for parents during the outbreak of COVID-19: a rapid review. *Ann Transl Med.* 2020 May;8(10):628–628.
- [14] Dharma K. *Metodologi Penelitian Keperawatan: Panduan Melaksanakan dan Menerapkan Hasil Penelitian.* Jakarta: Trans Info Media; 2011.
- [15] Knapp T. What is Quantitative Nursing Research? *Quant Nurs Res;* 2014. pp. 3–11.
- [16] Hughes SJ. *Kozier and Erb's Fundamentals of Nursing: Concepts, Process and Practice. Nurse Education in Practice.* 2012;12.
- [17] Hockenberry MJ, Wilson D, Rodgers CC. *Wong's Essentials of Pediatric Nursing.* 10th ed. St. Louis (Missouri): Elsevier Inc.; 2017. 2190 pp.
- [18] Hockenberry MJ, David W. *Wong's Nursing Care of Infants and Children.* 10th ed. Elsevier Mosby. Vol. UNIT IX, T, Nursing Care of Infants and Children; 2015. p. 883.