



Early Detection of Children's Emotional and Behavioral Problems during the Covid-19 Pandemic

Muhaini Atmayana Purba¹, Wardiyah Daulay^{1}*

¹Faculty of Nursing Universitas Sumatera Utara, Medan, Indonesia

Abstract. Children's emotional and behavioral problems differ from one another with the same background. Both decrease children's interaction, learning process, and behavior. The indicators of emotional problems verily affect children's behavior which causes them to be vulnerable in facing daily life obstacles. In terms of the learning process, they will have difficulty interacting and controlling their emotions and behavior. This study aims to identify emotional and behavioral problems of school-age children from SDN 060866 Medan Timur during the Covid-19 pandemic. This study used quantitative research with descriptive methods. Non-probability sampling using a total sampling technique was conducted with a total sample of 97 people. The sampling results showed that 52.6% of students sit in class VI, 51.5% are aged 12 years old, 61.9% are male, 56.7% are Javanese, 88.7% students with high-school graduated fathers, and 77.3% of students with high-school graduated mothers. The study's results indicate that 71.1% of students with emotional problems are in the borderline category and 71.1% in the normal category of behavioral problems. Therefore, it is imperative to detect children's emotional and behavioral problems early. It will prevent further problems so the children can grow and develop properly.

Keywords: behavioral problems; covid-19 pandemic; emotional problems; school-age children

Received 17th Agustus 2022 | Revised 13th November 2022 | Accepted 6th December 2022

*Corresponding author at: Faculty of Nursing, Universitas Sumatera Utara, Jl. Prof. T.Maas No.3, Padang Bulan, Medan, Sumatera Utara, Indonesia

E-mail address: wardiyah.daulay@usu.ac.id

Copyright © 2022

Published by Talenta Publisher

e-ISSN: 2685 -7162

Journal Homepage: <https://talenta.usu.ac.id/IJNS>

1. Introduction

Covid-19 is a disease outbreak with very fast transmission cases. China identified pneumonia cases as a new type of viral disease, coronavirus, on January 7, 2020. On January 30, 2020, it was designated as a Public Health Emergency of International Concern (KKMMD), and on March 11, 2020, WHO declared it a pandemic (Ministry of Health RI., 2020).

Pudjiadi et al. (2021), in their research results, stated that 37,706 children in Indonesia were confirmed to have Covid-19, with 175 death cases. The highest mortality was for children aged 6 - <19 years old, with 39%. In North Sumatra, cases recorded 1,448 children affected by Covid-19.

The data from the Ministry of Education and Culture (2021) showed that 233,683 children attended face-to-face learning in Medan. In terms of school-age children, it is children aged 6 to 12 years old. In this period, each age has important characteristics that grow and develop evenly physically and emotionally, starting from entering the school environment (Hockenberry, et al., 2019) .

Jati & Sumarni (2020) in their research stated that due to the Covid-19 pandemic, school-age children become less social, which impacts their emotional state. This causes emotional and behavioral problems. It is a condition in which children of the same age and background have a decrease in interaction, learning process, and behavior. As a result of the government's implementation of health protocols to reduce the transmission rate of Covid-19, children can not go outside to play with their friends. Also, reducing their motivation to study and causes children's emotional and behavioral problems (Subekti, et al., 2019) .

In Widakdo et al. (2020) research, WHO (2016) stated that one in four people globally have mental disorders at a certain time. Currently, around 450 million Indonesians suffer from emotional and mental disorders. Luh Gede's research (2014) in Widakdo et al. (2020) stated that a phenomenon in India described the 12.5% prevalence of mental and emotional disorders in children aged 0-16 years old. Another study by Wiguna, Manengkei, Amela, Rheza, and Hapsari (2010) in Widakdo et al. (2020) explained that 42.2% of children had emotional problems. In Singapore, 12.5% of children aged 6-12 years old have the emotional and behavioral problems.

The indicators of emotional problems verily affect children's behavior which causes them to be vulnerable to problems in their daily life. Including learning to control their emotion and behavior and having difficulties interacting with their friends. Thus, the researcher believes that early detection of children's emotional and behavioral problems in SDN 060866 Medan Timur is imperative to be conducted as a precaution to know those problems happening in children during the Covid-19 pandemic.

2. Research Methods

This study used a quantitative research design with descriptive methods. The description emphasizes the factual data which is systematically conducted. The population is all 97 students sitting in classes V and VI at SDN 060866 Medan Timur (Source: student administration data for the student year 2021/2022).

The study also used *non-probability sampling* by using a *total sampling* technique. It is a technique to determine the sample if the entire population serves as a sample. The sample has met the inclusion and exclusion criteria in this study. The inclusion criteria are independent students who can write and read well. The exclusion criteria are dependent students who can not write and read well. All students of class V and VI SDN 060866 Medan Timur serve as the sample in this study.

The study instruments consisted of three questionnaires. The questionnaires of respondents' characteristics, children's emotional problems, and behavioral problems. The respondent's characteristics questionnaire includes respondents' data of class, age, sex, ethnicity, and parent's education.

The research instrument on children's emotional problems consists of 12 questions. Questions 1-9 have positive statements with three alternative answers (Yes: 2, No: 0, and Sometimes: 1). Questions 10-11 have negative statements with three alternative answers (No: 2, Sometimes: 1, and Yes: 0). The highest score is 24, and the lowest is 0. The results will be divided into three categories. Normal: score 17-24, Borderline: score 9-16, Abnormal: score 0-8.

The research instrument of children's behavioral problems consists of 12 questions with a detailed score of No: 0, Sometimes: 1, Yes: 2. The highest score is 24, and the lowest is 0. The results will be divided into three categories. Normal: score 17-24, Borderline: score 9-16, Abnormal: score 0-8.

A lecturer expert in pediatric nursing has validated the research instrument. The *Content Validity Index* (CVI) value of the validated instrument is 1. This means the questionnaire has been declared valid using Aiken's coefficient $V=S/n(C-1)$. After passing the validity test, the questionnaire went through a reliability test. In April, the test was conducted with 30 school-age children sitting in Class V and VI at SDN 060895 Medan Baru. It declares as reliable if the Cronbach Alpha value is > 0.80 (Polit & Beck., 2018). Regarding children's emotional problems during the Covid-19 pandemic, the reliability test result showed a value of 0.826. Regarding children's behavioral problems during the Covid-19 pandemic, the reliability test result showed a value of 0.847. Thus, it was concluded that the instrument of this study is reliable.

3. Research Results

The obtained characteristics of the respondents are 51 students sitting in Class VI (52.6%), 50 students aged 12 years old (51.5%), 60 male students (61.9%), 55 Javanese students (56.7%), 86 students who have high-school graduated fathers (88.7%), and 75 students who have high-school graduated mothers (77.3%).

Table 1 Distribution of frequency and percentage of student characteristics at SDN 060866 Medan Timur (n=97)

Characteristics	Frequency	Percentage %
Class		
V	46	47.4
VI	51	52.6
Age		
11	37	38.1
12	50	51.5
13	10	10.3
Sex		
Male	60	61.9
Female	37	38.1
Ethnicity		
Bataknese	26	26.8
Javanese	55	56.7
Sundanese	1	1.0
Malay	9	9.3
Minangnese	6	6.2
Father's Education		
Elementary School	1	1.0
Junior High School	7	7.2
Senior High School	86	88.7
S1	3	3.1
Mother's Education		
Elementary School	7	7.2
Junior High School	12	12.4
Senior High School	75	77.3
S1	3	3.1

The results of school-age children with emotional problems showed that 21 children were not anxious to attend face-to-face learning (21.6%), 16 children were not afraid of getting bad grades (16.5%), 23 children did not feel happy to have friends (23.7%), 20 children did not look sad when teased by their friends (20.6%), 48 children were not envied to their friend who was top of the class (49.5%), and 51 children were not irritated towards friends who did not follow the rules (52.6%).

Table 2 Distribution of the frequency and percentage of statements regarding students' emotional problems at SDN 060866 Medan Timur during the Covid 19 pandemic based on the questionnaire's results (n=97)

No	Component	Yes		Sometimes		Not	
		F	%	F	%	F	%
1	Not restless when doing face-to-face learning	55	56.7	21	21.6	21	21.6
2	Worrying bad grades	57	58.8	24	24.7	16	16.5
3	Delightful feeling by having friends	51	52.6	23	23.7	23	23.7
4	Not afraid of new ambience	55	56.7	29	29.9	13	13.4
5	Uneasy to be apart	54	55.7	23	23.7	20	20.6
6	Gloomy when getting ridiculed	52	53.6	25	25.8	20	20.6
7	Feels good to be given some advice	48	49.5	27	27.8	22	22.7
8	Not afraid to admit mistakes	52	53.6	31	32.0	14	14.4
9	Restless when you feel sick	46	47.4	30	30.9	21	21.6
10	Being envy to more popular friends	22	22.7	31	32.0	44	45.4
11	Being envy to top-of-the-class friends	22	22.7	27	27.8	48	49.5
12	Being irritated towards friends who do not follow the rules	23	23.7	23	23.7	51	52.6

The results below showed that 23 children are included in the Normal category, meaning the emotional state of school-age children is good. In the Borderline category, there are 69 children (71.1%), meaning they are at risk for having emotional problems. In the Abnormal category, there are five children (5.2%), meaning the school-age children have emotional problems.

Table 3 Emotional problems of SDN 060866 Medan Timur students during the Covid-19 pandemic based on the questionnaire results (n=97)

Variable	Frequency (F)	Percentage (%)
Normal	23	23.7
<i>Borderline</i>	69	71.1
Abnormal	5	5.2

The results below showed the behavioral problems of the students. Nineteen students were okay to skip school (19.6%), 23 children were impolite to their teachers or older people (23.7%), 23 children did not wear masks and wash their hands (23.7%), 28 children were hyperactive in the class (28.9%), 25 children were not an enthusiast in studying (25.8%), and 18 children were dishonest (18.6%).

Table 4 Distribution of the frequency and percentage of statements regarding behavioral problems of SDN 060866 East Medan students during the Covid 19 pandemic based on the questionnaire results (n=97)

No	Component	Yes		Sometimes		Not	
		F	%	F	%	F	%
1	Being loss if skipping school	51	52.6	27	27.8	19	19.6
2	Being confident	56	57.7	25	25.8	16	16.5
3	Being polite towards teachers or elders	44	45.4	30	30.9	23	23.7
4	Able to focus/concentrate	48	49.5	30	30.9	19	19.6
5	Being obedient to wear masks and wash hands	52	53.6	22	22.7	23	23.7
6	Being honest	44	45.4	33	34.0	20	20.6
7	Hyperactive	40	41.2	29	29.9	28	28.9
8	Being independent	47	48.5	33	34.0	17	17.5
9	Enthusiastic in learning	49	50.5	23	23.7	25	25.8
10	Being responsible	54	55.7	29	29.9	14	14.4
11	Being accustomed	54	55.7	27	27.8	16	16.5
12	Being honest and not stealing	55	56.7	24	24.7	18	18.6

The results below showed the behavioral problems of the students. Nineteen students were okay to skip school (19.6%), 23 children were impolite to their teachers or older people (23.7%), 23 children did not wear masks and wash their hands (23.7%), 28 children were hyperactive in the class (28.9%), 25 children were not an enthusiast in studying (25.8%), and 18 children were dishonest (18.6%).

Table 5 Behavioral problems of SDN 060866 Medan Timur students during the Covid-19 pandemic based on the results of the questionnaire (n=97).

Variable	Frequency (F)	Percentage (%)
Normal	69	71.1
<i>Borderline</i>	12	12.4
Abnormal	16	16.5

4. Research Discussion

After researching the emotional problem occurring in 80 students of SDN 060866 Medan Timur, the research showed that 23 children are in the Normal category (23.7%), 69 children in the Borderline category (71.1%), and five children in the Abnormal category (5.2%). It showed that 23.7% categorized in the Normal category, meaning the children can balance their

emotions well. This result aligns with Wiguna et al. (2010) research. His research showed that 46.6% of children were categorized in the Normal category regarding emotional problems. It means that the children have reached good physical, mental, social, and emotional maturity (Assingkily & Hardiyati, 2019).

The borderline category is a very worrying threshold for school-age children. Mayasari et al., (2021) said that children's emotion has a crucial role in the school development stage. If the children have unpleasant feelings such as sadness or anger that flares up from within, having a high desire to get something, it will cause a problem in children's further development stage.

The result of researching the behavioral problems of SDN 060866 Medan Timur students showed that 69 children are in the Normal category (23.7%), 12 children are in the Borderline category (12.4%), and 16 children are in the Abnormal category (16.5%). Commonly, the obtained result showed that the children displayed a well-mannered and positive attitude. It can be seen from the children amount in the Normal category. This result aligns with Napisa & Syamsidar's (2022) research regarding children's emotional and behavioral problems. Their research indicated that 50 children (41.66%) are categorized in the Normal category, meaning they can socialize, solve problems well, and grow into positive people.

The demographic data also supports the above data. It shows that most students have high-school graduate fathers and mothers, including higher education (S1) parents who can receive more information and are susceptible to children's behavior. Parent involvement affects heavily on children's emotional behavior. An intelligent and wise parent can communicate children's emotional behavior well (Rahayu & Dewi, 2018). Parents' education and their experience in parenting will develop a good relationship between parents and children (Daulay et al., 2021).

The research on behavioral problems receives a low value in the borderline category. This category has an alarming number of school-age children. It also happens in the abnormal category, where children should not have this behavioral problem. It happens because children's personalities are affected by experiences or events that do not align with their expectations (Susanti & Akbar K, 2022).

5. Conclusions and Recommendations

The research results proved that SDN 060866 Medan Timur has 69 children (71.1%) in the borderline category regarding emotional problems and the normal category (71.1%) regarding behavioral problems. Even though the children in the normal category in terms of behavioral problems are dominant, the children in the borderline category have a worrying number.

The researchers suggest that early detection of emotional and behavioral problems in school-age children is crucial to see an early picture of disorders occurrences at the developmental stage. By conducting this, it will prevent further issues in the later development stage. The study results can be used for future research related to the early detection of emotional and behavioral problems in school-age children during the Covid-19 pandemic. Future researchers can use this study results as a comparison in different places. The result also showed an overview of school-age children's emotional and behavioral problems. For future research, the teacher's role can be included to develop this research further.

References

- [1] Assingkily, MS, & Hardiyati, M. (2019). Analysis of Achieved and Unattained Socio-Emotional Development of Elementary Age Students. *Al-Aulad: Journal of Islamic Primary Education*, 2 (2), 19–31. <https://doi.org/10.15575/al-aulad.v2i2.5210>
- [2] Daulay, W., Nasution, ML, & Wahyuni, SE (2021). Psychosocial Development of Children and Adolescents After the Sinabung Eruption in Karo Regency. *Pearl Ners Journal*, 4 (2), 105–110. <https://doi.org/10.51544/jmn.v4i2.1369>
- [3] Hockenberry, MJ, Wilson, D., & Rodgers, CC (2019). *Wong's Nursing Care of Infants and Children* (11th ed.). Elsevier.
- [4] Jati, LTS, & Sumarni, W. (2020). The Impact of the Covid-19 Pandemic on the Development of Elementary School Children. *Proceedings of the National Seminar ...*, 777–783. <https://proceeding.unnes.ac.id/index.php/snpasca/article/download/667/585>
- [5] Indonesian Ministry of Health. (2020). Decree of the Minister of Health of the Republic of Indonesia Number HK.01.07/MENKES/413/2020 concerning Guidelines for the Prevention and Control of *Corona Virus Disease* 2019 (Covid-19).
- [6] Mayasari, ED, Evanjeli, LA, & Anggadewi, T. (2021). Elementary School Students' Mental Health During the Corona Virus Pandemic (COVID-19). *JPAI (Journal of Psychology and Instruction)*, 5 (1), 5–17. <https://ejournal.undiksha.ac.id/index.php/JoPaI>
- [7] Napisa, N., & Syamsidar, S. (2022). Early Detection of Emotional and Behavioral Problems in Children Aged 4 - 11 Years at SDN 014 Campurjo. *Mando Care Journal*, 1 (2), 38–44. <https://doi.org/10.55110/mcj.v1i2.80>
- [8] Notoadmodjo, S. (2018). *Health Research Methodology*. Rineka Cipta.
- [9] Pudjiadi, AH, Putri, ND, Sjakti, HA, Yanuarso, PB, Gunardi, H., Roeslani, RD, Pasaribu, AD, Nurmalia, LD, Sambo, CM, Ugrasena, IDG, Soeroso, S., Firman, A., Muryawan, H., Setyanto, DB, Citraresmi, E., Effendi, JA, Habibah, L., Octaviantie, PD, Utami, INA, ...

- Pulungan, AB (2021). Pediatric COVID-19: Report From Indonesian Pediatric Society Data Registry. *Frontiers in Pediatrics*, 9 (September), 1–7. <https://doi.org/10.3389/fped.2021.716898>
- [10] Rahayu, A., & Dewi, T. (2018). *EFFECT OF PARENT INVOLVEMENT ON BEHAVIOR*. 2 (2), 66–74.
- [11] Subekti, N., Nurrahima, A., Nursing, I., & Emotional, GM (2019). *Emotional Mental State Overview*. 10–15.
- [12] Susanti, R., & Akbar K, F. (2022). *Early Detection of Emotional and Behavioral Problems at the Age of 11-18 Years at SMK YPPP Wonomulyo Address: Email : Phone : 1 (2), 0–5*.
- [13] Widakdo, G., Rita, E., Saputri, IN, Permatasari, TAE, & Kurniaty, I. (2020). Emotional and Behavioral Problems in Children with TB. *Health Care: Journal of Health*, 9 (1), 43–52. <https://doi.org/10.36763/healthcare.v9i1.75>
- [14] Wiguna, T., Manengkei, KPS, Pamela, C., Rheza, AM, & Hapsari, AW (2010). Emotional and Behavioral Problems in Children and Adolescents at the Child and Adolescent Mental Polyclinic, RSUPN dr. Ciptomangunkusumo (RSCM), Jakarta. *Sari Pediatrics*, 12 (4), 270–277.