



ANALYSIS OF TODDLER MOTHER'S BEHAVIOR TOWARDS DIARRHEA DISEASE INCIDENCE (CASE STUDY ON TODDLERS IN PANEKAN SUBDISTRICT, MAGETAN REGENCY YEAR 2024)

Dyah Ayu Villa Dewanti^a ; Suprijandani^{b*} ; Setiawan^c ; Demes Nurmayanti^d

^{a,b,c,d} Environmental Sanitation Study Program ; Polytechnic Health Ministry of Health Surabaya ;
Pucang Central Jajar Street No. 56 ; Surabaya and 60282 ; Indonesia

Abstract

Panekan Community Health Center reported the highest number of diarrhea cases in Magetan Regency from 2021 to 2023, with incidence rates of 23,162 per 1,000 toddlers in 2021, 14,865 per 1,000 in 2022, and 12,703 per 1,000 in 2023. This study analyzed the behavior of mothers of toddlers regarding diarrhea incidence in the Panekan Community Health Center area in 2024. This study employed an observational analytical method with a cross-sectional approach, involving 27 mothers of toddlers selected from a population of 37 using proportional random sampling due to unequal population distribution across strata. Data were collected through interviews and observations and analyzed using the Chi-Square test. The results showed significant relationships between knowledge ($p = 0.015$), attitude ($p = 0.000$), belief ($p = 0.000$), habit ($p = 0.000$), family support ($p = 0.000$), and home sanitation facilities ($p = 0.000$) with diarrhea incidence. However, no significant relationships were found for health worker services ($p = 1.000$) and community support ($p = 0.704$). The study concluded that knowledge, attitude, belief, habit, family support, and home sanitation facilities significantly influenced diarrhea incidence. Mothers of toddlers are encouraged to participate in educational activities and counseling organized by the Panekan Community Health Center to improve their understanding of diarrhea prevention.

Keywords: *Toddlers, Diarrhea Incidence, Behavior*

1. Introduction

Diarrhea was one of the infectious diseases with high morbidity and mortality rates, causing 6 million deaths among children under five each year worldwide, most of which occurred in developing countries (Wahyuni & Novita Tri, 2021). This disease was a major problem in developing countries, including Indonesia. Some of the main causes of diarrhea included bacteria contaminating food and drink from feces, as well as direct contact with infected individuals. Contributing factors to the high incidence of diarrhea were poor water quality, inadequate food sanitation, and insufficient household sanitation facilities (Tuang, 2021). Environmental sanitation played a crucial role in improving individual health. Efforts to enhance public health were achieved through improvements in environmental sanitation, the control and prevention of infectious diseases, health education, and the provision of healthcare services. Additionally, community development that ensured a good quality of life was also an effective method for improving public health (Endawati et al., 2021). One of the leading causes of death and morbidity in children under five is diarrhea. This is because this age group has poor nutritional status and is vulnerable to infectious diseases. Toddlers have a weak immune system, which

*) Corresponding Author (Suprijandani)
E-mail: suprijandani1@gmail.com

makes them highly susceptible to viral infections that cause diarrhea (Wahyuni & Novita Tri, 2021).
The coverage of diarrhea treatment with oral

rehydration salts (ORS) and zinc for toddlers in East Java in 2022 did not meet the target of 100%, achieving only 51,61% of the goal. However, in Magetan Regency, the coverage reached the 100% target. Despite this, diarrhea remained the most prevalent environmental-based disease in Magetan Regency and consistently ranked among the top ten most common diseases each year (Dinkes, 2022). According to the health profile of Magetan Regency, Panekan Community Health Center had the highest number of diarrhea cases, particularly among children under five. An initial study in the Panekan Community Health Center area revealed that children suffering from diarrhea had been using clean water sourced from the mountains and supplied through piping. The drinking water consumed by the patients included mineral water and boiled refillable water stored in previously used gallon containers.

Several latrines were found to have been in a less-than-clean condition, which could have become a breeding ground for agents causing diarrhea, such as Rotavirus and *E. coli* bacteria. Unclean latrines were also associated with a two-fold higher risk of diarrhea in young children (Kasman & Ishak, 2020). It was found that wastewater disposal sites in the study sites were open and emitted unpleasant odors. Diarrhea is also more likely to occur among toddlers under five from families without a sewage system, as these places can be breeding grounds for insects (Sengkey et al., 2020). The use of trash bins could have been risky in cases of diarrhea in toddlers if not managed properly. Diarrhea patients often used open trash bins, and there were indications of waste burning in household waste management. This could have potentially become a breeding ground for disease vectors and pests, such as flies (Putra et al., 2022).

The behavior of toddlers with diarrhea and their mothers showed that some did not practice handwashing with soap after defecation and handling toys. According to Lawrence Green's behavioral theory, health problems could arise due to individual behavior. This theory distinguished between two factors that could cause health issues : behavioral and non-behavioral factors (Pakpahan et al., 2021), The inadequate sanitation conditions and the lack of awareness among mothers with toddlers contributed to the high prevalence of environmentally-related diseases, such as diarrhea, in Panekan District, Magetan Regency. Therefore, it is necessary to conduct research to assess and analyze knowledge, attitudes, beliefs, habits, home sanitation facilities and infrastructure, health worker services, family support, and community support from mothers with toddlers regarding the incidence of diarrhea in Panekan District, Magetan Regency.

2. Method

The method used in this study was observational analytics with a cross-sectional research design. The study was conducted in the working area of the Panekan Community Health Center, Panekan Subdistrict, Magetan Regency. The research took place from January 2024 to June 2024. The study population consisted of 37 mothers with toddlers. A total of 27 mothers were selected as research subjects using proportional random sampling, which included 10 villages with 2 samples each, 4 villages with 1 sample each, and 1 village with 3 samples. With the proportional random sampling formula :

$$nh = \frac{Nh}{N} x n$$

Description :

n = sample size

Nh = total of each sub-population

N = total population as a whole

nh = sample size for sub-population

Data were collected at a single point in time to assess the relationship between maternal behavior and the incidence of diarrhea in toddlers (Rahman et al., 2022).

In this study, the variables analyzed included independent variables and dependent variables. The independent variables encompassed the behavior of mothers with toddlers, which included knowledge, attitudes, beliefs, habits, household sanitation facilities, health services, family support, and community support. The dependent variable in this study was the incidence of diarrhea in toddlers. Data collection was conducted through observation and interviews with respondents using a questionnaire. The field observations aimed to assess the condition of household sanitation facilities for mothers with toddlers, while the interviews using the questionnaire were intended to gather information on their knowledge, attitudes, beliefs, habits, health services, family support, and community support. The research results

would be analyzed using univariate and bivariate analyses, employing the chi-square statistical test to identify the relationship between the behavior of mothers with toddlers and the incidence of diarrhea in Panekan District, Magetan Regency.

3. Result and Discussion

Table 1. The Univariate Analysis of behavior of mothers of toddlers towards the incidence of diarrhea in Panekan District, Magetan Regency in 2024.

Variable	Frequency (n)	Percent (%)
Knowledge		
Good	18	33,3
Enough	18	33,3
Less	18	33,3
Attitude		
Good	22	40,7
Enough	27	50,0
Less	5	9,3
Belief		
Good	8	14,8
Enough	36	66,7
Less	10	18,5
Habit		
Good	22	40,7
Enough	24	44,4
Less	8	14,8
Home Sanitation Facilities		
Good	37	68,5
Enough	14	25,9
Less	3	5,6
Healthcare Services		
Good	52	96,3
Enough	2	3,7
Less	0	0
Family Support		
Good	41	75,9
Enough	10	18,5
Less	3	5,6
Community Support		
Good	46	85,2
Enough	8	14,8
Less	0	0

As performed in Table 1, the assessment results indicated that mothers of toddlers had evenly distributed knowledge about diarrheal disease, with 18 respondents (33,3%) possessing good, enough, and less knowledge. Regarding attitudes, 22 respondents (40,7%) demonstrated a good attitude, 27 respondents (50,0%) had an enough attitude, and 5 respondents (9,3%) displayed a less attitude.

The assessment of beliefs showed that 8 individuals (14,8%) had good beliefs, 36 individuals (66,7%) had enough beliefs, and 10 individuals (18,5%) had less beliefs. The habits of mothers of toddlers regarding diarrhea were also evaluated, with 22 individuals (40,7%) had good habits, 24 individuals (44,4%) had enough habits, and 8 individuals (14,8%) had less habits.

The assessment results for household sanitation facilities showed that 37 individuals (68,5%) had conditions that were good, 14 individuals (25,9%) had conditions that were enough, and 3 individuals (5,6%) had conditions that were less. Healthcare services were rated as good by 52 individuals (96,3%)

and enough by 2 individuals (3,7%). Family support was considered good by 41 individuals (75,9%), enough by 10 individuals (18.5%), and less by 3 individuals (5,6%). Community support was rated as good by 46 individuals (85,2%) and enough by 8 individuals (14,8%).

Table 2. The Bivariate Analysis of behavior of mothers of toddlers towards the incidence of diarrhea in Panekan District, Magetan Regency in 2024.

Variable	Diarrhea Incident				P value (0,05)
	Sick With Diarrhea		Not Sick With Diarrhea		
	n	%	n	%	
Knowledge					
Good	4	14,8	14	51,9	0,015
Enough	11	40,7	7	25,9	
Less	12	44,4	6	22,2	
Attitude					
Good	5	18,5	17	63,0	0,000
Enough	17	63,0	10	37,0	
Less	5	18,5	0	0	
Belief					
Good	1	3,7	7	25,9	0,000
Enough	19	70,4	17	63,0	
Less	7	25,9	3	11,1	
Habit					
Good	7	25,9	15	55,6	0,000
Enough	12	44,4	12	44,4	
Less	8	29,6	0	0	
Home Sanitation Facilities					
Good	13	48,1	24	88,9	0,000
Enough	12	44,4	2	7,4	
Less	2	7,4	1	3,7	
Healthcare Services					
Good	26	96,3	26	96,3	1,000
Enough	1	3,7	1	3,7	
Less	0	0	0	0	
Family Support					
Good	21	77,8	20	74,1	0,000
Enough	3	11,1	7	25,9	
Less	3	11,1	0	0	
Community Support					
Good	22	81,5	24	88,9	0,704
Enough	5	18,5	3	11,1	
Less	0	0	0	0	

The research findings presented in Table 2 indicated that various factors were analyzed to assess the behavior of mothers of children under five regarding the incidence of diarrhea. These factors included knowledge, attitude, belief, habits, home sanitation facilities, healthcare services, family support, and community support, categorized as good, enough, or less.

The knowledge of mothers with toddlers was evenly distributed across the three categories : good, enough, and less. The results of the Chi-Square statistical test also indicated a significant relationship between the mothers' knowledge and the incidence of diarrhea cases. Knowledge was one component that influenced a person's behavior, either directly or indirectly through their attitude. Although the mothers' knowledge was evenly spread across the three categories : good, enough, and less. This situation was attributed to the high number of mothers who had only an elementary school education. This finding was supported by Shewangizaw's research, which indicated that only maternal education status had a significant relationship with mothers' knowledge about diarrhea management at home.

Illiterate mothers were 88% less likely to have good knowledge about diarrhea management compared to mothers with higher education. To prevent the adverse effects of diarrhea in young children, mothers needed to know what to do and how to act (Shewangizaw et al., 2023).

This study was supported by Abate's research, which stated that the level of knowledge, attitudes, and practices related to good diarrhea management at home in East Africa remained low. This discrepancy might have been due to factors such as educational background, place of residence, and other socio-economic parameters (Abate et al., 2024). According to the researcher's opinion, this was due to the differences in educational and socio-economic backgrounds of mothers with young children. In addition, most of these mothers lived in rural areas where they could not access information or educational services. According to Lawrence Green's theory, knowledge was a predisposing factor that allowed actions shown by individuals because knowledge formed beliefs and attitudes that influenced individual behavior. Therefore, it was important for mothers with young children to have a better understanding of health and clean and healthy living practices. This would help reduce the number of cases of diarrhea in young children (Abate et al., 2024).

Attitude was an individual's readiness to react to something in a specific context, derived from their understanding of that matter. Stimuli, such as public awareness about how to prevent diarrhea, encouraged mothers to respond, which could be in the form of a good or bad attitude. These stimuli led to the formation of attitudes (Ridawati et al., 2021). The attitudes of mothers of toddlers were categorized as enough, with statistical tests using the Chi-Square method showing a significant relationship between mothers' attitudes and the incidence of diarrhea. This study was consistent with the research conducted by Santini and Mahayana at the Busungbiu II Health Center in Buleleng Regency, which found a significant relationship between how mothers managed diarrhea and the number of cases that occurred. The more positively mothers managed diarrhea, the fewer diarrhea cases occurred in toddlers (Santini & Mahayana, 2020).

Based on the study findings, the majority of mothers had either 'enough' (40.7%) or 'less' (44.4%) knowledge about diarrhea. This level of knowledge was associated with attitudes categorized as 'enough' (25.9%) and 'less' (22.2%). These findings suggest that limited knowledge may influence maternal attitudes toward diarrhea prevention and management. Furthermore, socioeconomic constraints such as limited financial resources for accessing safe drinking water or adequate sanitation may also play a role, as indicated in related literature. This was reinforced by Pardede's research, which stated that a mother's attitude influenced behavior. Therefore, a mother with a positive attitude tended to pay attention to cleanliness to prevent diarrhea, while a mother with a negative attitude tended to neglect cleanliness (Pardede et al., 2024).

The confidence of mothers of toddlers was categorized as sufficient. Statistical tests using the Chi-Square method revealed a significant relationship between maternal confidence and the incidence of diarrhea. This study aligned with Kimilarningsih's research conducted in the work area of Puskesmas II, West Denpasar, which also found a significant relationship between confidence and diarrhea prevention behavior. In shaping an individual's beliefs about attitudes, confidence based on good knowledge provided an effective foundation for evaluating various factors, which led to certain behaviors that were consistent with the individual's beliefs (Kimilarningsih, 2019). According to the researcher's opinion, this problem was caused by a lack of knowledge about diarrhea and socio-economic factors that affected the ability to provide safe drinking water, which may have been the main cause of the condition. Therefore, to increase their understanding and awareness of diarrhea, a continuing education program was needed to discuss the causes, symptoms, prevention, and treatment of diarrhea.

The habits of mothers with toddlers fell into the enough category. Statistical tests using the Chi-Square method indicated a significant relationship between mothers' habits with toddlers and the incidence of diarrhea. This study was consistent with Hailu's research conducted in the rural area of

Dangila District, Northwest Ethiopia. Hailu's research found a significant relationship between handwashing habits before eating and after using the toilet, open defecation, caregivers' failure to wash their hands, untrimmed nails, drinking water from unprotected sources, and family monthly income with diarrhea in children under five years old (Hailu et al., 2021). In the researchers' opinion, this was due to the lack of knowledge about the importance of handwashing in preventing diarrhea transmission and the insufficient awareness among mothers regarding the significant impact of handwashing on young children's health. There was a need to improve mothers' knowledge and understanding of the importance of handwashing to prevent diarrhea transmission, as handwashing was a good method to prevent the spread of diseases from germs on the hands (Fernando et al., 2024).

The sanitation infrastructure of the homes of mothers with young children was categorized as good. Statistical tests using the Chi-Square method indicated a significant relationship between the sanitation infrastructure of these homes and the incidence of diarrhea. This study was consistent with Nurmayanti's research in Wonoayu Village, Sidoarjo. The researchers hypothesized that the following factors influenced the incidence of diarrhea among young children in Wonoayu Village, Sidoarjo: the availability of clean water, the human waste disposal system, the waste disposal system, and parental behavior (Nurmayanti et al., 2023). This study was also consistent with Auma's research in Lira City, Northern Uganda. The researcher assumed that this was due to the lack of good basic health facilities, characterized by high population density and numerous slum settlements, which resulted in an increased risk factor for diarrhea (Auma et al., 2024).

According to the researcher's opinion, the sanitation facilities in the homes of toddlers in Panekan District were mostly categorized as good. However, there were still some mothers whose sanitation facilities were categorized as enough or less. This was due to limited access to and infrastructure for sanitation, varying levels of awareness or habits among mothers of toddlers, economic conditions, and the difficulty of changing behaviors. Sanitation facilities in the home served as an enabling factor that influenced healthy sanitation practices in the home environment. They aimed to create a supportive and encouraging home environment for clean and healthy sanitation for their residents. Therefore, it was necessary to enhance the provision of good sanitation facilities and conduct intensive educational programs and outreach to mothers of toddlers and the community at large about the importance of household cleanliness and sanitation.

The healthcare services were categorized as good. Statistical testing using the Chi-Square method indicated that there was no significant relationship between healthcare services and the incidence of diarrhea. This study was not in line with research conducted by Afriani, who assumed that the role of healthcare personnel was less effective because the Tanjung Agung Community Health Center had a large area and did not have enough doctors to meet patient needs (Afriani, 2017). This study was consistent with Terefa's research in Addis Ababa, Ethiopia. The researcher assumed that a greater reduction in the use of zinc combined with oral rehydration salts occurred among respondents who had previously sought medical care from healthcare professionals (Terefa et al., 2023).

According to the researcher's opinion, this was due to the economic conditions of mothers with toddlers and the relatively long distance from their homes. Therefore, there needed to be a higher level of economic support and the presence of nearby health service centers for mothers, which could help facilitate easier access to healthcare services. This would have encouraged mothers to bring their children to health facilities more promptly during episodes of diarrhea, thus reducing the number of diarrhea cases among toddlers. Additionally, healthcare services could have influenced patient behavior by demonstrating interest in specific actions taken by the patient and continuously engaging with them (Setyaji et al., 2020).

Family support was categorized as good. Statistical testing using the Chi-Square method indicated a significant relationship between family support and the incidence of diarrhea. These findings were

inconsistent with previous research conducted by Sari, who had assumed that the informant's family played a crucial role in assisting when a child had diarrhea, such as taking the informant to the hospital (Sari et al., 2020). Kirana and Angraini's research assumed that families also contributed to the adoption of a clean and healthy lifestyle by maintaining household cleanliness to prevent the spread of infections, with their efforts being categorized as good, enough, or less effective (Kirana & Angraini, 2024).

According to the researcher's opinion, this was due to a lack of knowledge about diarrhea, its early symptoms, and the insufficient awareness among family members of toddlers regarding the significant impact of handwashing on toddler health. Therefore, it was necessary to improve knowledge about diarrhea and its early symptoms and to raise awareness among family members about the importance of handwashing. This was achieved through health education, which aimed to enhance understanding and promote hygienic behavior that could prevent the occurrence of diarrhea in toddlers.

Based on the research findings, community support was categorized as good. Statistical analysis using the Chi-Square test method indicated that there was no significant relationship between community support and the incidence of diarrhea. This study was not consistent with the research conducted by Nurhaedah, which showed that active community involvement was associated with a reduction in the incidence of diarrhea (Nurhaedah et al., 2022). According to the researchers' opinion, this was attributed to the perceived indifference of mothers of toddlers towards the community's support in prioritizing health. Upa and Winarti, in their research, assumed that it was crucial to support the community in organizing intensive education and outreach programs about the dangers of diarrhea, its adverse effects on public health, and how to prevent it by adopting a good and healthy lifestyle (Upa & Winarti, 2024). Therefore, better campaigns and educational programs were urgently needed to raise public awareness about the importance of child health.

4. Conclusion and Suggestion

Based on research on the behavior of mothers with toddlers regarding the incidence of diarrhea in Panekan Subdistrict, Magetan Regency, the findings indicated that knowledge, attitudes, beliefs, and habits were categorized as enough. Sanitation facilities at home, healthcare services, family support, and community support were categorized as good. Statistical analysis using the Chi-Square test revealed a significant relationship between knowledge, attitudes, beliefs, habits, home sanitation facilities, and family support and the incidence of diarrhea in Panekan Subdistrict, Magetan Regency, in 2024. However, there was no significant relationship between healthcare services and community support and the incidence of diarrhea in Panekan Subdistrict, Magetan Regency, in 2024. Mothers of toddlers were advised to cultivate the habit of washing hands with clean water and antibacterial soap, to use covered and waterproof trash bins, and to reduce household waste burning by adopting recycling, composting, and waste sorting methods. To prevent toddlers from experiencing diarrhea, it is crucial to keep the toilet clean.

5. Acknowledgments

Thank you to the Head of Panekan Community Health Center for granting permission to conduct this research. I also extend my gratitude to the mothers of the toddlers who willingly participated as respondents in this study.

6. References

Abate, B. B., Zemariam, A. B., Wondimagegn, A., Abebe, K., Araya, F. G., Mengesha, A., Id, K., & Bizuayehu, A. (2024). Knowledge , attitude and practice of home management of diarrhea among under-five children in East Africa : A systematic review and meta-analysis. *Pol One Journal*, 1-14. <https://doi.org/10.1371/journal.pone.0298801>

- Afriani, B., & Afriani, B. (2017). Peranan Petugas Kesehatan dan Ketersediaan Sarana Air Bersih dengan Kejadian Diare. *Jurnal Ilmu Kesehatan*, 2(2), 117–122. [https://doi.org/2\(2\)2017,117-122](https://doi.org/2(2)2017,117-122)
- Auma, B., Id, M. M., Ojuka, E., Kigongo, E., Tumwesigye, R., Id, W. A., Kabunga, A., & Opio, B. (2024). Prevalence of diarrhea and water sanitation and hygiene (WASH) associated factors among children under five years in Lira City Northern Uganda : Community based study. *PLoS ONE*, 425, 1–15. <https://doi.org/10.1371/journal.pone.0305054>
- Dinkes. (2022). Profil Kesehatan Provinsi Jawa Timur.
- Endawati, A., Sitorus, R. J., & Listiono, H. (2021). Hubungan Sanitasi Dasar dengan Kejadian Diare pada Balita Di Wilayah Kerja Puskesmas Pembina Kota Palembang. *Jurnal Ilmiah Universitas Batanghari Jambi*, 21(1), 253. <https://doi.org/10.33087/jiubj.v21i1.1143>
- Fernando, P. S., Togubu, D. M., & Kasau, S. (2024). Hubungan Personal Higiene Dengan Kejadian Diare Pada Siswa Sekolah Dasar YPK Merauke. *Indonesian Health Journal*, 3(1), 66–80. <https://doi.org/https://doi.org/10.56314/inhealth.v3i1>
- Hailu, B., Ji-guo, W., & Hailu, T. (2021). Water , Sanitation , and Hygiene Risk Factors on the Prevalence of Diarrhea among Under-Five Children in the Rural Community of Dangila District , Northwest Ethiopia. *Journal of Tropical Medicine*, 2021. <https://doi.org/https://doi.org/10.1155/2021/2688500>
- Kasman, & Ishak, N. I. (2020). Hubungan kepemilikan jamban terhadap kejadian diare pada balita di kota banjarmasin. *Jurnal Publikasi Kesehatan Masyarakat Indonesia*, 7(1), 28–33. <https://doi.org/http://dx.doi.org/10.20527/jpkmi.v7i1.8674>
- Kimilaningsih, N. K. (2019). Hubungan Keyakinan Diri Dengan Perilaku Pencegahan Diarepada Ibu Balita Di Puskesmas Ii Denpasar Barat Kota Denpasar Tahun 2019. *Jurnal Politeknik Kesehatan Kemenkes Denpasar Jurusan Keperawatan*.<http://repository.poltekkes-denpasar.ac.id/id/eprint/2408>
- Kirana, F. R., & Angraini, D. I. (2024). Penatalaksanaan Holistik pada Anak Usia 2 Tahun dengan Diare Akut Tanpa Dehidrasi melalui Pendekatan Kedokteran Keluarga di Puskesmas Kedaton. *Medical Profession Journal Of Lampung*, 14(2), 306–314. <https://doi.org/https://doi.org/10.53089/medula.v14i2.970>
- Nurhaedah, N., Pannyiwi, R., & Suprpto, S. (2022). Peran Serta Masyarakat dengan Angka Kejadian Diare. *Jurnal Ilmiah Kesehatan Sandi Husada*, 11, 403–409. <https://doi.org/https://doi.org/10.35816/jiskh.v11i2.799>
- Nurmayanti, D., Sandriana, T., Rustanti, I., Thohari, I., & Narwati. (2023). Faktor Lingkungan dan Perilaku Orangtua terhadap Penyakit Diare pada Balita di Desa Wonoayu, Sidoarjo. *Jurnal Penelitian Kesehatan Suara Forikes*, 14(April), 396–399. <https://doi.org/http://dx.doi.org/10.33846/sf14231>
- Pakpahan, M., Siregar, D., Susilawaty, A., Mustar, T., Ramdany, R., Manurung, E. I., Sianturi, E., Tompunu, Gadis, M. R., Sitanggang, Y. F., & M, M. (2021). *Promosi Kesehatan dan Perilaku Kesehatan* (R. Watrianthos (ed.)). Yayasan Kita Menulis.
- Pardede, D. Y. O., GukGuk, S. N. R., Niscahaya, S. Y., Bate'e, Toruan, K. L., & Silaban, V. F. (2024). Hubungan Perilaku Ibu Tentang Higenitas Botol Susu Dengan Kejadian Diare Pada Bayi Usia 6-24 Bulan. *Journal of Telenursing (JOTING)*, 6(1), 1563–1574. <https://doi.org/https://doi.org/10.31539/joting.v6i1.10036>
- Putra, D. P., Masra, F., & Prianto, N. (2022). Penerapan Pengelolaan Sampah Dan Air Limbah Rumah Persada Kota Bandar Lampung. 16(2), 108–112. <https://doi.org/https://doi.org/10.26630/rj.v16i2.3446>
- Rahman, A., Sari, N. M. W., Fitriani, Sugiarto, M., Sattar, Abidin, Z., Irwanto, Nugroho, A. P., Indriana,

- Ladjan, N., Haryanto, E., Amane, A. P. O., Alasan, A., & Amtai. (2022). *Metode Pengumpulan Data* (Aas Masrur, Issue October). Widina Bhakti Persada Bandung.
- Ridawati, I. D., Nugroho, B., Lubuklinggau, P. K., Palembang, P. K., Sosial, D., Musi, K., & Selatan, S. (2021). Hubungan Sikap Ibu Dengan Upaya Pencegahan Penyakit. *Jurnal Persatuan Perawat Nasional Indonesia Jawa Tengah*, 5(3). [https://doi.org/5\(3\)](https://doi.org/5(3)), 858–865.
- Santini, L., & Mahayana, I. M. B. (2020). Hubungan tingkat pengetahuan dan sikap ibu balita dengan kejadian diare di puskesmas busungbiu ii kabupaten buleleng. *Jurnal Kesehatan Lingkungan*, 10(2), 79–87. <https://doi.org/https://doi.org/10.33992/jkl.v10i2.1274>
- Sari, N., Karjoso, T. K., Devis, Y., Dewi, O., & Priwahyuni, Y. (2020). Analisis Faktor Perilaku Ibu terhadap Pencegahan Penyakit Diare pada Balita di Puskesmas Payung Sekaki Kota Pekanbaru Kesehatan Masyarakat , Universitas Indonesia Analysis of Maternal Behavior Factors on Prevention of Diarric Diseases in Toddler in Payung. *Jurnal Ilmiah Kesehatan Masyarakat*, 14(<https://jikm.upnvj.ac.id/index.php/home/issue/view/14>), 40–55. <https://doi.org/https://doi.org/10.52022/jikm.v14i1.326>
- Sengkey, A., Joseph, W. B. S., & Warouw, F. (2020). Pembuangan Air Limbah Rumah Tangga Dengan Kejadian Diare Pada Balita Usia 24-59 Bulan Di Desa Raanan Baru Kecamatan Motoling. *Jurnal KESMAS Universitas Sam Ratulangi Manado*, 9(1), 182–188.
- Setyaji, E. D., Marsanti, A. S., & Ratnawati, R. (2020). Hubungan Dukungan Keluarga Dan Dukungan Tenaga Kesehatan Dengan Kepatuhan Minum Obat Penderita Skizofrenia. *Jurnal Health Sains*, 1(5). <https://doi.org/https://doi.org/10.46799/jhs.v1i5.57>
- Shewangizaw, B., Mekonen, M., Feku, T., Hoyiso, D., Borie, Y. A., Yeheyis, T., & Kassahun, G. (2023). Knowledge and attitude on home-based management of diarrheal disease among mothers/caregivers of under-five children at a tertiary hospital in Ethiopia. *Pan African Medical Journal*, 44. <https://doi.org/10.11604/pamj.2023.44.38.34431>
- Terefa, D. R., Shama, A. T., & Kenea, A. K. (2023). Sociodemographic and institutional determinants of zinc bundled with oral rehydration salt utilisation among five children with diarrhoeal diseases in East Wallaga zone , western Ethiopia : a community- - based cross- - sectional study. *BMJ Open*, 13(5), 1–9. <https://doi.org/10.1136/bmjopen-2022-070203>
- Tuang, A. (2021). Analisis Analisis Faktor yang Berhubungan dengan Kejadian Diare pada Anak. *Jurnal Ilmiah Kesehatan Sandi Husada*, 10(2), 534–542. <https://doi.org/10.35816/jiskh.v10i2.643>
- Upa, L., & Winarti, E. (2024). Peran Teori Health Belief Model Dalam Menelaah Penampungan Air Hujan , Dan Kejadian Diare Di Daerah Yang Bergantung Pada Sumber Air Hujan . *Jurnal Kesehatan Tambusai*, 5(1), 871–893. <https://doi.org/https://doi.org/10.31004/jkt.v5i1.25864>
- Wahyuni, & Novita Tri. (2021). Faktor Risiko Kejadian Diare Pada Balita Systematic Review Bidang Kesehatan Masyarakat. *Program Studi Farmasi, Fakultas MIPA, Universitas Tulang Bawang Lampung*, 8(September), 270–278. <https://doi.org/https://doi.org/10.33024/jikk.v8i3.4667>