ISSN: 2252-8806, DOI: 10.11591/ijphs.v13i2.23395

Analysis of factors that cause infants aged 0-6 months to not receive exclusive breastfeeding from their mother

Irdawati¹, Yuli Kusumawati², Widia Lestari¹, Vinda Nuri Fadhila¹, Hasna Nafisah¹

¹Department of Nursing, Faculty of Health Sciences, Universitas Muhammadiyah Surakarta, Surakarta, Indonesia ²Department of Public Health, Faculty of Health Sciences, Universitas Muhammadiyah Surakarta, Surakarta, Indonesia

Article Info

Article history:

Received May 9, 2023 Revised Aug 28, 2023 Accepted Sep 7, 2023

Keywords:

0-6 months
Breastfeeding
Exclusive breasfeeding
Infants
Mother

ABSTRACT

Failure to give exclusive breastfeeding is a risk factor for stunting and malnutrition in toddlers. Other factors that may be the cause of a woman not giving exclusive breastfeeding must be known like family factors, health service factors or there are still other factors. The aim of this study to description the factors causing infants 0-6 months not to receive exclusive breastfeeding in the working area of the Gatak Health Center. The descriptive analytical research method with total sampling technique obtained a sample of 58 mothers who did not provide exclusive breastfeeding to their infants. The study found that the majority of mothers who did not provide exclusive breastfeeding were aged between 20 and 35 years old, had completed high school or vocational school education, and were employed. The 94.8% of the mothers had good health condition. External factors included mothers with good knowledge, lack of family support, and good support from healthcare workers. Factors causing mothers not to provide exclusive breastfeeding included their productive age and high level of knowledge, which made them prefer to work, resulting in less intensive time with their babies. Mothers felt that they lacked support from their families, which discouraged them from providing exclusive breastfeeding.

This is an open access article under the **CC BY-SA** license.



558

Corresponding Author:

Irdawati

Department of Nursing, Faculty of Health Sciences, Universitas Muhammadiyah Surakarta

Surakarta, Indonesia Email: irdawati@ums.ac.id

1. INTRODUCTION

The Indonesian Ministry of Health targets an increase in exclusive breastfeeding rates up to 80%, but the actual rate of exclusive breastfeeding in Indonesia is still low at only 74.5% [1]. Data from the Sukoharjo District Health Office shows that the percentage of exclusive breastfeeding in 2019 was 75.1%, slightly lower than 75.8% in 2018. Until now, coverage of exclusive breastfeeding has not been achieved in several regions in Indonesia. Coverage of exclusive breastfeeding rates in Central Java Province is still lower, namely 72.5% [2]. The provision of exclusive breastfeeding is regulated in the Government Regulation of the Republic of Indonesia number 33 of 2012 concerning exclusive breastfeeding article 6, which requires mothers to provide exclusive breastfeeding to their infants. However, there are still many mothers who do not provide breast milk to their babies for six months due to various reasons, making it difficult to achieve the goal of exclusive breastfeeding coverage in Indonesia [3]. Around 12% of deaths under the age of 5 are caused by suboptimal breastfeeding [4]. Infants are an important early phase in the growth and development of children [5]. Exclusive breastfeeding for six months is crucial to support optimal growth and development, as well as to prevent early-onset disorders [6]. Breast milk contains balanced nutrients and provides protection against infections such as diarrhea and pneumonia [7], [8]. Recommendations from international health organizations suggest exclusive

breastfeeding for six months, followed by continued breastfeeding along with complementary solid foods until the age of 2. Exclusive breastfeeding has been proven to prevent diseases and support infant health [9], [10].

In this phase, proper attention must be given to the provision and quality of breast milk, so as not to disturb the little one's development stage during the first six months of life. Because the first six months is the golden period of child development until the age of two years. The amount of breast milk production depends on the frequency of breastfeeding and the hormone prolactin. Prolactin hormone functions to stimulate breast milk production. So, the more often a mother breastfeeds her baby, the more prolactin hormone is released, which increases breast milk production [11]. The nutrients contained in breast milk can support baby's growth and development, thereby minimizing the occurrence of stunting, protecting the baby from allergies and helping to maintain their immune system so that the baby does not get sick frequently [1]. The impact on babies who do not receive exclusive breastfeeding is at risk of getting diarrhea, if compared to babies who receive exclusive breastfeeding, the risk is 30 times higher. Babies who are not given exclusive breastfeeding are more likely to die due to malnutrition [12]. Babies are at risk of malnutrition, infectious diseases, diabetes, and obesity caused by not receiving exclusive breastfeeding [13].

Many factors play a role in exclusive breastfeeding, including the mother's knowledge about exclusive breastfeeding. Mother have good knowledge can improve breastfeeding behavior, compared to lack of knowledge. However, in other studies, knowledge is not related to exclusive breastfeeding [14]. Another influential factor is the environment, especially family support and support from health workers. Economic factors are also related to exclusive breastfeeding. Breastfeeding can save on baby care costs, but to meet other needs, sometimes mothers go back to work and are unable to provide their milk. Another factor, namely the right information about breastfeeding and how to give breastfeeding for working mothers can increase women's understanding of the importance of exclusive breastfeeding. Mother's health also determines exclusive breastfeeding. Mothers who are sick after giving birth have a risk of not being able to provide exclusive breastfeeding to their babies [14].

Factors of failure or barriers to exclusive breastfeeding in previous studies have been identified, including lack of family support, especially fathers of babies, mothers working full time, lack of knowledge in first pregnancies, workplaces can be a barrier for mothers to care for and provide exclusive breastfeeding [15]. Failure to give exclusive breastfeeding is a risk factor for stunting and malnutrition in toddlers [16], [17]. Other factors that may be the cause of a woman not giving exclusive breastfeeding must be known, perhaps from maternal factors both internal and external factors, father and family factors, health service factors or there are still other factors that have not been detected. This study aimed was analyzing the factors causing infants to not receive exclusive breastfeeding in the working area of public health center (*Puskesmas*) *Gatak*.

2. METHOD

This study conducted with cross sectional design and descriptive analyzed. The population was mother have babies at the age of 0-6 months. The study group consisted of infants aged 0-6 months in the working area of the Gatak Community Health Center, and the researchers obtained ethical clearance issued by the Health Research Ethics Comitte of Dr. Moewardi General Hospital on October 31, 2022, with the number 1.343/X/HREC/2022. The sampling technique uses total sampling, according to Sugiyono in theory total sampling is carried out because the total population is less than 100. The sample in this study was mothers who do not provide exclusive breastfeeding to their babies aged 0-6 months in the working area of the Gatak Health Center, Sukoharjo Regency, with a total of 58 peoples. The collecting data used a questionnaire in the form of statements using the Guttman scale. The instrument has been tested for validity and reliability on subjects with the same criteria in different populations. The questionnaire consisted of 36 statements with 4 invalid questions but were included in the instrument because they were represented by valid questions. The reliability value was 0.907 for the knowledge variable, 0.904 for the family support variable, and 0.802 for the health worker support variable so that the instrument was said to be reliable. The knowledge category is considered good if the score is >11 and poor if the score is ≤ 11 . The family support category is deemed unsupportive if the score is ≤ 10 , and supportive if the score is > 10. The healthcare provider support category is referred to as not providing support if the score is ≤5 and providing support if the score is >5. Data analysis used descriptive methods. Characteristic factors of mothers not to provide exclusive breastfeeding to their babies presented descriptifly and will not test hypotheses. This study was funded by the 2022/2023 UMS RPPS with a total of five million rupiah with contract number 569.1/A.3-II/FIK/III/2022.

3. RESULTS AND DISCUSSION

In this study, most of the mothers were in the range of 20-35 years (77%), while only a small proportion (3.4%) of mothers were aged <20 years. More than half of the respondents had a high school/vocational school level of education (58.6%). That mean mother have low level education. Most of the

560 □ ISSN: 2252-8806

mothers worked in the private sector (36.2%), and a small proportion as civil servants (5.2%). Almost all of them (94%) were in good health mothers were good (healthy), only a small proportion of mothers were unhealthy (5.2%) shown in Table 1.

External factors identified included mother's knowledge, family support, and support from health workers. Most of the mothers had good knowledge (89.7%). Partly family support was found in the less category (53.4%). Most mothers received good support from health workers (91.4%) for giving exclusive breastfeeding shown in Table 2.

Table 1. Respondent characteristics

Category	Subcategory	Count	Percentage
Sample size		58	100%
Age	<20 years	2	3.4%
	20–35 years	45	77.6%
	>35 years	11	19%
Education	Elementary school	1	1.7%
	Junior high school	12	20.7%
	Senior high school	34	58.6%
	University/college	11	19%
Employment	Housewife	16	27.6%
	Private employee	21	36.2%
	Private employer	18	31.1%
	Civil servant	3	5.2%
Self-rated health	Good, very good, excellent	55	94.8%
	Poor/fair	3	5.2%

Table 2. Distribution of supporting factors of respondents in providing exclusive breastfeeding

Category	Count	Percentage
Knowledge level		
Good	52	89.7%
Poor	6	10.3%
Family support		
Good	27	46.6%
Poor	31	53.4%
Health worker support		
Good	53	91.4%
Poor	5	8.6%

In this study, mothers who did not provide exclusive breastfeeding were mostly in their productive age range of 20-35 years old, where many mothers are busy outside the home as career women. The results of previous studies showed that almost all mothers who did not breastfeed exclusively were from the productive age group. This is because mothers claimed that they did not have enough time to breastfeed to her babir babies, so they chose to supplement with formula milk to prevent the baby from being fussy [18]. This study in line with study previous that mothers working full time, as barries provide time for exclusive breastfeeding [19].

Pregnancy, childbirth, postpartum period, and the way of caring for and breastfeeding the baby are all strongly correlated with the mother's age. Younger mothers are still socially immature and not ready to face pregnancy, childbirth, and raising a newborn baby [20]. Meanwhile, mothers aged 35 and above will experience a relatively decreased production of hormones, resulting in a decrease in the lactation process [21]. The mother's age is a factor in exclusive breastfeeding. This research in line with previoues study, maternal age is related to breastfeeding practices. Adolescent mothers are at higher risk of not exclusively breastfeeding their babies than adult mothers [22]. The older a mother is, the higher the level of maturity and the ability to think and act maturely. This also applies in the context of exclusive breastfeeding by a mother to her baby.

The results of the study show that the highest percentage of mothers who are employed in the private sector do not practice exclusive breastfeeding. Working mothers often have limited time to spend with their babies, as they may feel tired after work and have to take care of their families and other household chores, which makes them choose not to practice exclusive breastfeeding [22]. Providing exclusive breastfeeding for working mothers often faces obstacles, as maternity leave is limited and mothers have to return to work before the exclusive breastfeeding period ends. Breastfeeding does not necessarily have to be stopped for working women. If possible, the baby can be brought to the workplace, or the mother can go home and breastfeed her baby. However, since most workplaces do not have baby care facilities or lactation rooms where mothers can breastfeed their babies, this is very difficult to do [23]. The mother's occupation is one of the factors that influence the success or failure of exclusive breastfeeding. Mothers who do not work are more likely to provide exclusive breastfeeding compared to working mothers [24]. The rate of exclusive breastfeeding increases even

more when the mother does not work. This is due to the role of non-working mothers as homemakers who can spend more time at home without being tied to work outside the home, enabling them to provide optimal breastfeeding without time constraints and busyness. Additionally, non-working mothers also tend to provide exclusive breastfeeding for economic reasons, as those with lower income have no other option but to buy food for their babies, making breastfeeding a more affordable solution [25].

The results of the study showed that the majority of mothers did not provide exclusive breastfeeding despite having a good education, as they preferred to focus on their work and had limited time with their children. Mothers with higher education believed that their education should not be wasted, and thus they preferred to work outside the home, which was consistent with previous research that found many highly educated mothers thought that providing breast milk alone was not enough, especially those who spent little time at home and more time at work [26]. Mothers who were considered knowledgeable did not ensure exclusive breastfeeding because their job status could also affect their ability to breastfeed, as some working mothers were less focused on taking care of their babies due to their work commitments [27]. The level of a mother's education does not guarantee the success of providing exclusive breastfeeding for her baby. Education can play a role as a supporter or inhibitor in providing exclusive breastfeeding. Not all highly educated mothers are willing to provide exclusive breastfeeding, especially those with low education who may lack information and often feel tired. Ultimately, the success of exclusive breastfeeding depends on the mother herself. If a mother has a higher education and applies her knowledge, she can support the provision of exclusive breastfeeding effectively. However, mothers with lower education may not have sufficient knowledge and information to support exclusive breastfeeding due to limited knowledge and difficulties in applying the given information.

The mother's health condition when breastfeeding is equally important, both physically and psychologically, and thus nursing mothers should prepare themselves well [27]. Some mothers who were physically healthy still did not provide exclusive breastfeeding because they believed that breastfeeding could change their physical condition, making them lose confidence due to hormonal changes and changes in routine that could affect their psychological and physical condition. The lack of family support also affects mothers' decision not to provide exclusive breastfeeding because family members who have their own activities give less attention to mothers who are breastfeeding their babies [28]. Consequently, mothers choose not to provide exclusive breastfeeding because they do not receive support from family members [29]. Breastfeeding can cause mothers to experience health problems, such as hormonal changes and disruptions to their psychological and physical condition due to changes in their daily routines. Therefore, mothers need encouragement from their families. If the support from the family is lacking, then mothers may hesitate to breastfeed their babies [30].

This research showed the support of healthcare workers towards mothers to exclusively breastfeed their babies has been done well. The more often healthcare workers provide information and education about exclusive breastfeeding, the more motivation and high self-confidence will arise, making it possible for mothers to breastfeed their babies exclusively without hesitation [31]. However, mothers have a busy schedule of working and are not able to provide exclusive breastfeeding, so they choose formula milk which is more comfortable and does not cause mothers to endure pain like when pumping breast milk [31]. This study has limitations in measuring maternal health indicators based on maternal perception without being accompanied by medical records, therefore the maternal health history cannot be definitively determined.

Mothers do not provide exclusive breastfeeding are influenced by several factors, namely the mother's productive age, a busy work schedule, and a lack of time with the baby. Mothers have higher level of education feel the need to work to ensure their education is not wasted. A mother's health condition and high level of knowledge also influence their decision to prioritize their career. Furthermore, a lack of support from family members may discourage mothers from providing exclusive breastfeeding. Although health workers have provided support, some mothers still feel exhausted from work and choose to provide additional nutrition instead of exclusive breastfeeding. Efforts to improve breastfeeding practices among mothers are still needed because, in reality, exclusive breastfeeding is not fully practiced. Given the various findings in this study, the author suggests that healthcare workers increase education on the importance of breastfeeding for newly delivered mothers and activate volunteers to empower the community in evenly disseminating the importance of exclusive breastfeeding so that mothers with infants can receive maximum support from their families. Additionally, mothers need to actively participate in activities at the integrated health posts (*posyandu*) to receive services and information about maternal and infant health, particularly regarding the importance of exclusive breastfeeding for infants aged 0-6 months.

4. CONCLUSION

Mothers do not give exclusive breast milk to their babies are influenced by several factors, namely productive age, productive age is used by mothers to work outside the home, so the work schedule causes a lack of time with the baby. Mothers who have a higher level of education feel the need to work so that their

education can increase their income and for pride. Good health conditions, supporting mothers to work to take advantage of their education and being of productive age. The sample in this study was mothers who did not provide exclusive breastfeeding to their babies aged 0-6 months in the *Puskesmas* work area, and did not use a comparison group because the aim was to obtain an objective picture of a particular condition using numerical data. Quantitative research to obtain an objective picture of a condition can use a minimum sample size of 30 people. For future research, mothers' knowledge about expressing and storing breast milk can be explored so that even though the mother works, the baby at home always gets the mother's exclusive breast milk.

REFERENCES

- Kementrian Kesehatan Republik Indonesia, National Riskesdas Report 2018 (In Indonesian: Laporan Nasional Riskesdas 2018).
- [2] Dinas Kesehatan Provinsi Jawa Tengah, Central Java Health Profile 2021 (in Indonesian: Profil Kesehatan Jateng 2021). 2022.
- [3] S. Nurokhmah, S. Rahmawaty, and D. I. Puspitasari, "Determinants of optimal breastfeeding practices in Indonesia: findings from the 2017 Indonesia demographic health survey," *Journal of Preventive Medicine and Public Health*, vol. 55, no. 2, pp. 182–192, Mar. 2022, doi: 10.3961/jpmph.21.448.
- [4] R. E. Black et al., "Maternal and child undernutrition and overweight in low-income and middle-income countries," The Lancet, vol. 382, no. 9890, pp. 427–451, Aug. 2019, doi: 10.1016/S0140-6736(13)60937-X.
- [5] C. Meriem, M. Khaoula, C. Ghizlane, M. A. Asmaa, and A. O. T. Ahmed, "Early childhood development (0-6 years old) from healthy to pathologic: a review of the literature," *Open Journal of Medical Psychology*, vol. 09, no. 03, pp. 100–122, 2020, doi: 10.4236/ojmp.2020.93009.
- [6] WHO, World health statistics 2017: monitoring health for the SDGs, sustainable development goals. 2017.
- [7] M. Mgongo, T. H. Hussein, B. Stray-Pedersen, S. Vangen, S. E. Msuya, and M. Wandel, "Facilitators and barriers to breastfeeding and exclusive breastfeeding in Kilimanjaro region, Tanzania: a qualitative study," *International Journal of Pediatrics (United Kingdom)*, vol. 2019, Feb. 2019, doi: 10.1155/2019/8651010.
- [8] K. E. Lyons, C. A. Ryan, E. M. Dempsey, R. P. Ross, and C. Stanton, "Breast milk, a source of beneficial microbes and associated benefits for infant health," *Nutrients*, vol. 12, no. 4, pp. 1–30, Apr. 2020, doi: 10.3390/nu12041039.
- [9] B. Y.-A. Asare, J. V. Preko, D. Baafi, and B. Dwumfour-Asare, "Breastfeeding practices and determinants of exclusive breastfeeding in a cross-sectional study at a child welfare clinic in Tema Manhean, Ghana," *International Breastfeeding Journal*, vol. 13, no. 1, Mar. 2018, doi: 10.1186/s13006-018-0156-y.
- [10] P. Shakya *et al.*, "Effectiveness of community-based peer support for mothers to improve their breastfeeding practices: a systematic review and meta-analysis," *PLoS ONE*, vol. 12, no. 5, May 2017, doi: 10.1371/journal.pone.0177434.
- [11] S. K. Huang and M. H. Chih, "Increased breastfeeding frequency enhances milk production and infant weight gain: correlation with the basal maternal prolactin level," *Breastfeeding Medicine*, vol. 15, no. 10, pp. 639–645, Oct. 2020, doi: 10.1089/bfm.2020.0024.
- [12] M. N. Khan and M. M. Islam, "Effect of exclusive breastfeeding on selected adverse health and nutritional outcomes: a nationally representative study," BMC Public Health, vol. 17, no. 1, Nov. 2017, doi: 10.1186/s12889-017-4913-4.
- [13] D. D. Walters, L. T. H. Phan, and R. Mathisen, "The cost of not breastfeeding: global results from a new tool," *Health Policy and Planning*, vol. 34, no. 6, pp. 407–417, Jun. 2019, doi: 10.1093/heapol/czz050.
- [14] F. Ramadhani, "Social determinants of exclusive breastfeeding failure in Sraturejo, Baureno, Bojonegoro City," (in Indonesia), Jurnal IKESMA, vol. 15, no. 1, pp. 43–50, Mar. 2019, doi: 10.19184/ikesma.v15i1.14414.
- [15] L. Handayani, M. K. Dewi, and L. Munira, "Barrier and facilitator on breastfeeding education and promotion: a literature review," International Journal of Public Health Science, vol. 9, no. 4, pp. 320–326, Dec. 2020, doi: 10.11591/ijphs.v9i4.20495.
- [16] A. P. Campos, M. Vilar-Compte, and S. S. Hawkins, "Association between breastfeeding and child overweight in Mexico," Food and Nutrition Bulletin, vol. 42, no. 3, pp. 414–426, May 2021, doi: 10.1177/03795721211014778.
- [17] N. S. H. Malonda, F. Warouw, P. A. T. Kawatu, and Y. Sanggelorang, "History of exclusive breastfeeding and complementary feeding as a risk factor of stunting in children age 36-59 months in coastal areas," *Journal of Health, Medicine and Nursing*, vol. 70, Jan. 2020, doi: 10.7176/jhmn/70-07.
- [18] A. Ayazbekov *et al.*, "Features of pregnancy, childbirth and postpartum period of young mothers," *Electronic Journal of General Medicine*, vol. 17, no. 6, pp. 1–8, Aug. 2020, doi: 10.29333/ejgm/8459.
- [19] J. Chen et al., "The association between work related factors and breastfeeding practices among Chinese working mothers: a mixed-method approach," International Breastfeeding Journal, vol. 14, no. 1, Jun. 2019, doi: 10.1186/s13006-019-0223-z.
- [20] D. Dong *et al.*, "A prospective cohort study on lactation status and breastfeeding challenges in mothers giving birth to preterm infants," *International Breastfeeding Journal*, vol. 17, no. 1, Jan. 2022, doi: 10.1186/s13006-021-00447-4.
- [21] K. E. Werdani, F. Rumiati, Y. Kusumawati, and R. A. Manaf, "Social capital and exclusive breastfeeding practice among teenage mothers," *Eurasian Journal of Biosciences*, vol. 14, no. 2, pp. 5323–5330, 2020.
- [22] S. B. Ickes *et al.*, "Exclusive breastfeeding among working mothers in Kenya: perspectives from women, families and employers," *Maternal and Child Nutrition*, vol. 17, no. 4, May 2021, doi: 10.1111/mcn.13194.
- [23] S. Duwadi and H. P. Upadhyay, "A comparative study of exclusive breastfeeding practices among working and non-working women in Bharatpur-Tandi, Chitwan, Nepal," Nepalese Journal of Statistics, vol. 2, pp. 1–10, Sep. 2018, doi: 10.3126/njs.v2i0.21151.
- [24] K. Sanjel and A. Amatya, "Determinants of timely initiation of breastfeeding among disadvantaged ethnic groups in Midwest Nepal," *Journal of Nepal Health Research Council*, vol. 16, Jan. 2018, doi: 10.33314/jnhrc.v16i41.1591.
- [25] T. Tewabe, A. Mandesh, T. Gualu, G. Alem, G. Mekuria, and H. Zeleke, "Exclusive breastfeeding practice and associated factors among mothers in Motta town, East Gojjam zone, Amhara Regional State, Ethiopia, 2015: a cross-sectional study," *International Breastfeeding Journal*, vol. 12, no. 1, Dec. 2017, doi: 10.1186/s13006-017-0103-3.
- [26] R. S. Ahmad, Z. Sulaiman, N. H. Nik Hussain, and N. Mohd Noor, "Working mothers' breastfeeding experience: a phenomenology qualitative approach," *BMC Pregnancy and Childbirth*, vol. 22, no. 1, Jan. 2022, doi: 10.1186/s12884-021-04304-4.
- [27] R. N. Fadjriah, S. Krisnasari, and Y. Gugu, "Relationship between family social support and exclusive breastfeeding behavior at talise health center, Indonesia," *Open Access Macedonian Journal of Medical Sciences*, vol. 9, pp. 312–316, Apr. 2021, doi: 10.3889/oamjms.2021.5987.
- [28] V. Priscilla, Y. Afiyanti, and D. Juliastuti, "A qualitative systematic review of family support for a successful breastfeeding experience among adolescent mothers," *Open Access Macedonian Journal of Medical Sciences*, vol. 9, pp. 775–783, Dec. 2021, doi: 10.3889/oamjms.2021.7431.

[29] E. H. Emmott, A. E. Page, and S. Myers, "Typologies of postnatal support and breastfeeding at two months in the UK," Social Science and Medicine, vol. 246, Feb. 2020, doi: 10.1016/j.socscimed.2020.112791.

- [30] Z. Iliyasu, H. S. Galadanci, P. Emokpae, T. G. Amole, N. Nass, and M. H. Aliyu, "Predictors of exclusive breastfeeding among health care workers in Urban Kano, Nigeria," *JOGNN - Journal of Obstetric, Gynecologic, and Neonatal Nursing*, pp. 433–444, Jul. 2019, doi: 10.1016/j.jogn.2019.04.285.
- [31] B. Al-Katufi, M. Al-Shikh, R. Al-Hamad, A. Al-Hajri, and A. Al-Hejji, "Barriers in continuing exclusive breastfeeding among working mothers in primary health care in the ministry of health in Al-Ahsa region, Saudi Arabia," *Journal of Family Medicine and Primary Care*, vol. 9, no. 2, p. 957, 2020, doi: 10.4103/jfmpc.jfmpc_844_19.

BIOGRAPHIES OF AUTHORS



Irdawati is a permanent lecturer at the Nursing Study Program, Faculty of Health Sciences, Universitas Muhammadiyah Surakarta. Registered as a member of the Indonesian Pediatric Nurses Association (IPANI) from 2015 until now. She completed his Masters in Biomedical Sciences at Diponegoro University Semarang in 2007. She continues to be active in the field of education by publishing a book entitled "Concepts of Healthy Child Nursing" published by Muhammadiyah University Press, apart from that he is also on the writing team of the Regional Acute Child Nursing Textbook VII AIPNI published by Mahakarya Citra Utama 2022. She can be contacted at email: ird223@ums.ac.id.



Yuli Kusumawati is a permanent lecturer at the Public Health study program, Faculty of Health Sciences, Universitas Muhammadiyah Surakarta. During 2017-2022, she was active as a member of the Indonesian Association of Public Health Experts (IAKMI). After completing her undergraduate degree, her research focus was on the epidemiology of women and maternal health. The recipient of the BUDI DN scholarship from the LPDP kemenkeu in 2017, she successfully completed her doctoral studies at FKKMK Gadjah Mada University on June 18, 2021. Her research includes health epidemiology, Public Health, and Health Promotion, with a main focus on women's and reproductive health. She can be contacted at email: yk183@ums.ac.id.



Widia Lestari is an undergraduate nursing student at Universitas Muhammadiyah Surakarta who is interested in conducting research in the field of pediatric nursing. Contribute in developing research for the benefit of education and science. She can be contacted at email: J210190190@student.ums.ac.id.



Vinda Nuri Fadhila is an undergraduate nursing student at Universitas Muhammadiyah Surakarta who is involved in research in the field of pediatric nursing. She plays a role in the field of research so as to be able to have an impact on the development of nursing research. She can be contacted at email: j210190139@student.ums.ac.id.



Hasna Nafisah is a registered nurse from the Nursing Professional Program at Universitas Muhammadiyah Surakarta. She aims to be a dedicated professional nurse in pediatric nursing. Focuses on developing research on maternal and child nursing, as well as taking part in community service projects to provide a wider positive impact. She can be contacted at email: j230215122@student.ums.ac.id.