

## An Overview of Health Issue Tracking among Parents of School-Aged Children

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### Article Info

### Abstract

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*Health issue;*  
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*Parents;*  
*Information tracking*

School age is one of the community groups that is a priority for the national health program. Various health problems of school-age children are a concern of parents. To deal with their school age children's condition, parents require a variety of health issues solutions. Parents commonly prefer to seek for information on their gadgets by using the internet. These many concerns, problems, and issues that parents have about their children's health have motivated an in-depth exploration of parents' digital literacy skills in tracing information. This study aims to determine the frequency with which parents of school-aged children track health information and investigate the issue that 109 parents of school-aged children are interested in based on health issues in East Kalimantan. The sample was chosen using an accidental sampling technique. In this study, a simple questionnaire with closed and open questions was used as a survey method. A univariate and bivariate test were performed to process data on frequency with which parents seek health problems as well as its relationship to respondent characteristics, the Spearman rank test was used. The result is health information about screen time risk was most frequently accessed by parents, but compared to other issues, the nutrition issue is significantly deeper. It will be necessary to develop interventions like health promotion programs that parents will utilize in improving their health literacy, especially about children's health in the school.

### 1. INTRODUCTION

Parents have an important role in the growth and development of children, especially in development during the school period, adding to understanding preferences regarding children's health information that is growing both online and digitally helps health workers in conveying health messages to be more effective (Bryan et al., 2020a; Wild et al., 2022a). Several frameworks have evaluated the quality of online information, the media focus on important attributes of information, such as accuracy and reliability, as well as user perception. The information sought by parents can be valid but sometimes the information obtained is incorrect and ambiguous (Maeve et al., 2015; Yaman et al., 2021).

School age is one of the community groups that is a priority for the national health program (UNICEF Indonesia & Agency, National Development Planning, 2019). Internet access is currently a frequent source of information, especially reviews about children's health, besides that they have a very good and positive perception of the usefulness and ease of finding information about children's health and problems (Jaks et al., 2019). Various health problems of school-age children are a concern of parents, they expected to be involved in prevention programs and increase oral health literacy in children (Moghbeli et al., 2021a). Oral health, teeth, and nutritional intake become important in school children, this has a major impact on the high incidence of health impacts in pre-

adolescents in the future (Gherunpong et al., 2004). The World Health Organization has described that children's problems that are currently a priority are not only related to infectious diseases, but also related to mental health and efforts to prevent bullying and acts of violence, especially in the Southeast Asia region (World Health Organization, 2020).

Worldwide, about 15 million girls aged 15 to 19 have experienced sexual violence and 9 million of these have been victims in the past year. Globally, in 38 low and middle-income countries, nearly 17 million adult women report having experienced sexual violence in their children and teens (Evans et al., 2021; Hermans et al., 2021; United Nations International Children's Emergency Fund, 2020; WHO, 2018). The role of parents in this regard is needed to ensure comprehensive sexual education for their children during childhood and adolescence. Sexual education provided by parents can facilitate non-judgmental and inclusive conversations about reproductive health and sexuality. The role of parents in this regard is needed to ensure comprehensive sexual education for their children during childhood and adolescence. Sexual education provided by parents can facilitate non-judgmental and inclusive conversations about reproductive health and sexuality (Brindle et al., 2002; Roden et al., 2020).

On the other hand, the concerned health of parents is about nutrition and child nutrition, where the current challenge is related to the incidence of obesity in children (Spinelli et al., 2019a). The development of decision-making and monitoring of child nutrition by parents through digital platforms is growing and can assist health experts in monitoring and preventing nutritional health problems in children (Wild et al., 2022b). Searching for smoking problems at a young age is also a concern for parents, in several developing countries through previous studies, the role of family and parents greatly influences children's smoking behavior in the future. Reports from parents about the health status of their children tend to not care about their health and be interested in smoking behavior in the future (Paraje & Valdés, 2021; Small et al., 2012a).

These various concerns, problems and issues faced by parents regarding their child's health have prompted an in-depth study of parents' digital literacy skills in finding, exploring, and tracing information, and also conveying it persuasively to their children (Moghbeli et al., 2021b; Pearson et al., 2018a; Seguin et al., 2021). East Kalimantan is one of the fastest-growing regions in Indonesia as a developing country and has a heterogeneous level of family background (Statistical Bureau of Indonesia, 2020). In previous studies, no detailed health issues have been found regarding the information sought by parents, and the social factors that encourage parents to seek detailed health information have not been explained in detail among school aged children (Permana & Ifroh, 2022). Based on that, it is necessary to study and identify statistically to confirm findings and interventions designed to increase parental awareness of issues and problems child health. Based on that, the purpose of this study is to identify the intensity of tracking health information among parents of school-aged children and explore the topics that are sought by parents of school-aged children based on health problems.

## 2. METHOD

This study was the quantitative research using cross-sectional design. This design has been used because this type of observational research examines variable data collected from a predetermined sample population over a set period. The sample was selected through the accidental sampling technique. 109 parents of school-age children participated in this study as survey subjects in East Kalimantan. The data was conducted in January 2021.

Table 1. Questionnaire's grille

Type of question	Question
Respondent characteristics	Age Sex Profession Education
Tracking health issue by parents (closed question)	Allergies and skin disease Mental health Bullying Sexual reproduction health Accident and injuries Danger of smoking Danger of screen time Child nutrition
Parents are asked to provide specific health information (Open-ended question)	What specific data they usually seek on these topics?

A simple questionnaire with closed and open questions was used in this study. The validity test used to measure the accuracy of this research instrument uses content validity with the CVI (Content Validity Index) approach. The reliability test has been used on the search variable for health topics by parents who have school-age children. The calculation results obtained that the reliability coefficient value for the questionnaire types of health

topics was 0.793 ( $r_i = 0.793$ ). The instrument is said to be reliable if  $r_i > 0.70$  (r count is greater than 0.7), it can be concluded that the questionnaire type of health topic is declared reliable by having a good level of reliability and is a reliable instrument. This questionnaire's grille is as table 1.

In closed question, parents were asked to select one of three options: frequently, rarely, or never. In addition, parents asked the other information from the topic above, which is frequently sought. After data collection, it should be cleaned to ensure that no information was lost. The data was analyzed that use statistical data processing software. A univariate test was performed to process data on respondent characteristics and the frequency with which parents seek health problems. In bivariate test, because the data were not normally distributed, the Spearman rank test was used to analyze the relationship between respondent characteristics and the search for information about health problems. Data was gathered for open-ended questions, coded, and then added to the category of answers. The responses from all respondents are then collected and analyzed that use the mind mapping.

### 3. RESULT AND DISCUSSION

Based on the results of the study, a univariate test has been found the many things. The first is known that the issue of child health that is often sought after by parents today is the danger of screen time (figure 1), which is 58.7%, this is in accordance with previous research that parents have a role to provide instructions regarding health information that has been listened to and then delivered in the form of health messages that children receive or practice more simply (Mollborn et al., 2022).

**Table 2. Respondents characteristics**

Characteristics	All Parents	
	n = 109	%
Age		
<19	1	0.9
25-29	5	4.6
30-34	15	13.8
35-39	18	16.5
40-44	43	39.4
45-49	16	14.7
>50	11	10.1
Sex		
Male	14	12.8
Female	95	87.2
Profession		
Civil Servant/Police/Army	21	19.3
Private Employee	12	11.0
Entrepreneur	8	7.3
Housewife	62	56.9
Etc.	6	5.5
Education		
Primary School	5	4.6
Junior High School	12	11.0
Senior High School	51	46.8
College	41	37.6

Studies that have been conducted also explain that there is a statistical relationship between overweight or obese children with activity levels and consumption of healthy foods (Whiting et al., 2021a). Indirectly, excessive screen time activity will encourage a child's higher willingness to eat without adequate activity, so that in this study parents are considered to have been concerned with the challenges of children's growth and development and unhealthy behaviors that become children's daily habits (Pearson et al., 2018b). This research is in line with what has been done previously that the theme of online information that is most often accessed by parents regarding children's health and development is screen time as many as 50% (Bryan et al., 2020b) and a similar study in East Kalimantan describes that social media used by parents to access health information is through *Facebook*, *Instagram*, and *Youtube*, also access the dangers of screen time (74.7%) (Ifroh & Permana, 2022a).

Based on the data table 2, 39.4% of The parents who were respondents in this study were aged 40 - 44 years, and 14.7% were aged 45 - 49 years, besides that 87.2% of parents were women. Based on previous studies, it is known that the role of the mother as part of the family has a correlation with the growth and development of children and the application of a healthy lifestyle at the household level, as well as the provision of balanced nutrition or nutrition that has been adapted to the family's financial condition and other needs (Lindsay et al., 2018). A total

of 56.9% of respondents are housewives and 46.8% have high school education status. Studies that have been conducted state that mothers who have higher education have a lower risk of having children who are obese, this is because mothers have higher experience and literacy in child nutrition. This inequality requires health education interventions that can reach mothers with low education and can be accepted based on cultural backgrounds (Ifroh & Permana, 2022b; Spinelli et al., 2019b).

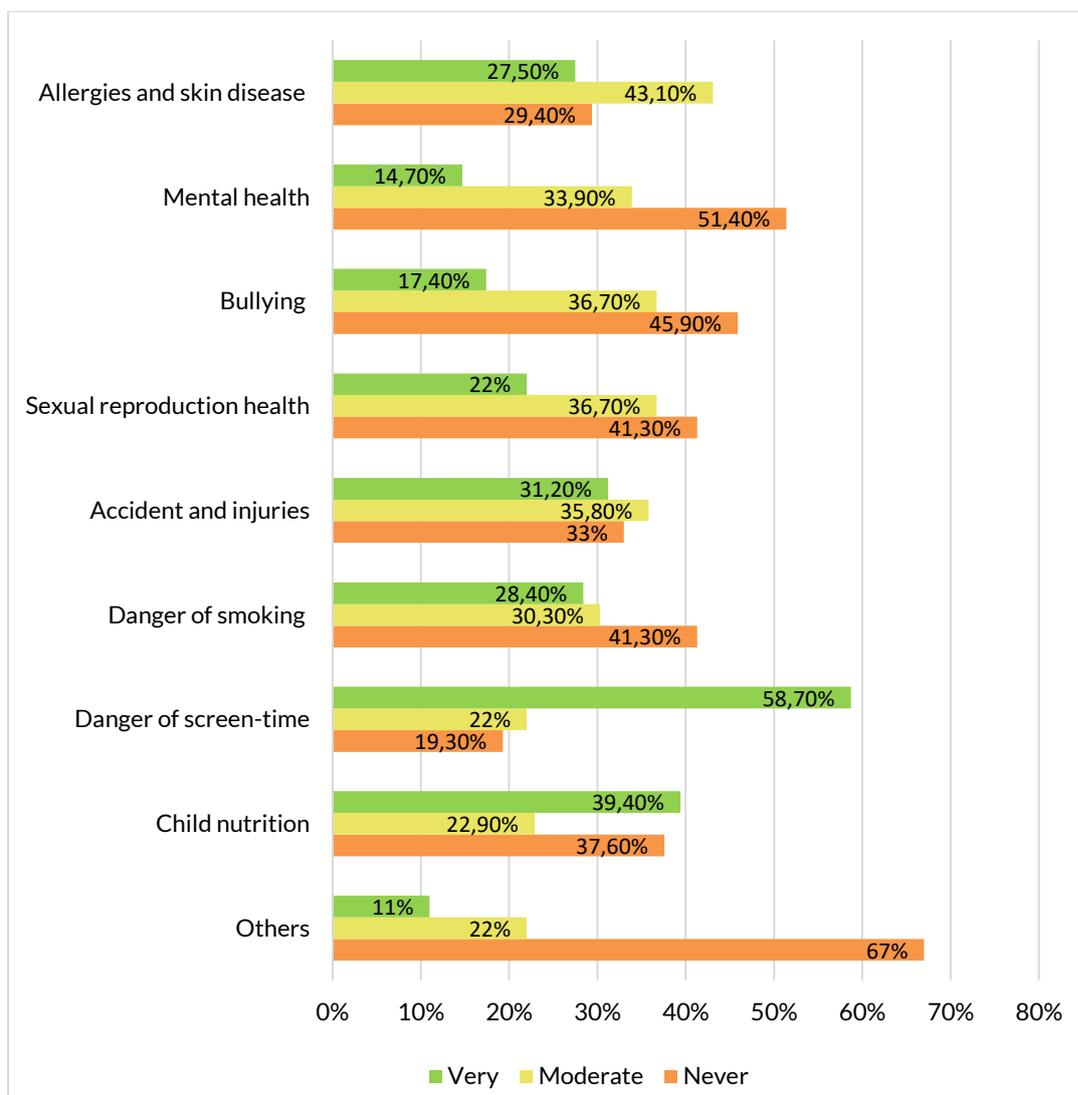


Figure. 1. Frequency of parents in seeking children's health issues

The second is also frequently accessed by parents of school-age children in this study is about child health nutrition (39.4%). Other studies support the results of this study that the issue of child nutrition is the focus on low consumption of vegetables and fruit, and high consumption of high-calorie foods or fast food that can increase the risk of obesity or the accumulation of body fat in children (Spinelli et al., 2019b; Whiting et al., 2021b). This study also provides an illustration that valid and correct literacy (Permana et al., 2021) and information are needed so that parents' decisions can support children in a healthy diet program or the provision of healthy balanced daily meals (Spinelli et al., 2019b), especially regarding the benefits of eating fruit and vegetables, as well as ideal approaches that can be taken to increase children's interest to consume vegetables and fruit in their daily menu (Permana et al., 2020).

The third was explained that parents accessed information with a high frequency on the topics of accidents and injuries (31.20%), danger of smoking (28.4%), and allergies and skin disease (27.5%). This is also in line with studies conducted that when school children grow up to become teenagers, all forms of experience become an important part to do, one of which is smoking behavior. In previous studies (Small et al., 2012b) have shown that most parents discuss smoking with their children about the dangers and benefits of not smoking. Parents convey that the experience of smoking has a negative impact on their own health, on the other hand, parents are also

strongly opposed to discussing more deeply about the dangers of smoking in children, so that this communication pattern is considered contrary to the values of communication in adolescents. Based on the results of statistical analysis in table 3, it is known that there is a correlation between aspects of parental work with allergy and skin disease issues ( $p$ -value = 0.010) in more detail that the highest percentage is dominated by housewives (53.3%) who always access information on allergies and skin diseases in children. Based on previous studies (Kim et al., 2020; Moen et al., 2019) that matters related to the concept of health and medical treatment, parents need assistance by professional health workers in order to reduce the consumption of inappropriate information, this certainly supports increasing parental literacy which is more applicable and appropriate in handling health problems independently at the family level. In more detail, the issue of fulfilling children's nutrition has a statistical correlation with parents' socio-demography, that is occupation ( $p$ -value = 0.025) and education level ( $p$ -value = 0.021), while parents who access nutrition information are dominated by mothers with a percentage value (88.4%), occupations that dominate are housewives (51.2%), and at the university level of education (55.8%).

On the issue of bullying in children, parents who have a college education background more often access information related to anal bullying (52.6%) and only occasionally (50%). The statistical correlation on this variable is ( $p$ -value = 0.012). The previous study in Samarinda (Susanti et al., 2018) showed that as many as 51.3% of school children tended to have experienced bullying victims at school. This is supported by other studies (Gomez-baya et al., 2022) that the negative effect of bullying at school is that it will affect the level of happiness of children which can have an impact on the pattern of children's lives at home. So, this is in line with this study that parents make the issue of bullying as one of the health information searches.

The parents have a significant influence on how the children do as a parent or other adult caregiver. Because parents are already aware of this health information, they can recognize when their child's behavior is not in line with health recommendations and know what needs to be changed. Parents need to be a role model for their children, seems like eating fruits and vegetables for healthy, so they must eat too. The second, parents need to talk about being healthy. Just because parents know of these health issues, they should guide kids toward healthier options. The third, parents can promote good health beyond their family because it's possible that more adults involved in their child's lives. Parents may talk to them about good practices. Here are some tips to help parents and caregivers help their children (National Institute of Diabetes and Digestive and Kidney Diseases, 2019).

A bivariate test also was conducted in this study to examine the association between parent characteristics and the searched health issue (table 3). Parents, especially mothers, have the highest percentage of accessing children's reproductive health information (79.2%) compared to fathers (20.8%). Meanwhile, parents who often access reproductive health are dominated by housewives. Several studies state that children will face adolescence and need to be instilled in the values and skills of assertiveness, self-esteem, and faithfulness in building social life in adolescence. The role of parents in this case is to support making the right decisions, daring to refuse things that lead to negative relationships at a young age (Millanzi et al., 2022). It was also added that the search for information related to accidents and injuries had a statistical correlation with the education level of parents ( $p$ -value = 0.005), this can be proven based on statistical analysis that parents who often access information about accidents and injuries to their children are parents with high school education. above (52.9%). At the age of children, parents are indeed more concerned with the habits and experiences of injuries and driving accidents based on the activities and activities of children during play, this health information that parents are looking for to help in treating their child's initial injuries (Högberg et al., 2019; Spering et al., 2022).

Although there is no statistical correlation between sociodemographic variables and the issue of danger of screen time, it is known that mothers have a higher tendency (87.2%) in seeking information about the use of gadgets in children, with the highest classification accessing parents with high school education (46.9%). In previous studies, it was found that parental awareness in providing education on the dangers of watching and accompanying children while on screen activities, this is to avoid behavioral problems related to the negative impact of media. More detailed, in-depth topics of parental health information can be seen in the figure 2.

Figure 2 shows the outcomes of the analysis on open questions. As shown in the figure above, parents are looking for specific information about their child's nutrition. Although only 39.40% of parents frequently and 22.90% moderate, who are seeking for information on their children's nutrition in the figure 2. According to the findings of baseline health research (Riskasdas) in 2018, Indonesia, a developing country, has a problem in proportion of poor nutrition and lack of nutrition in toddlers, having 17.7% of the goals at 17% between 2007 and 2018 (Kemenkes RI, 2018). In most developing countries, mothers' lack of information about food choices, feeding, and healthcare seeking practices significantly contributes to poor nutrition outcomes for children (Fadare O et al., 2019). As a result, some parents are curious in the nutrition of their children especially in school-age children. The limitation of this study is that parents do not always answer open-ended questions about the information sought from each topic in detail; instead, they only answer the outline. Future research will be necessary to develop interventions like health promotion programs that parents will utilize in improving their health literacy, particularly regarding school-age children's health issues because children are growing and developing into teenagers and then into responsible adults.

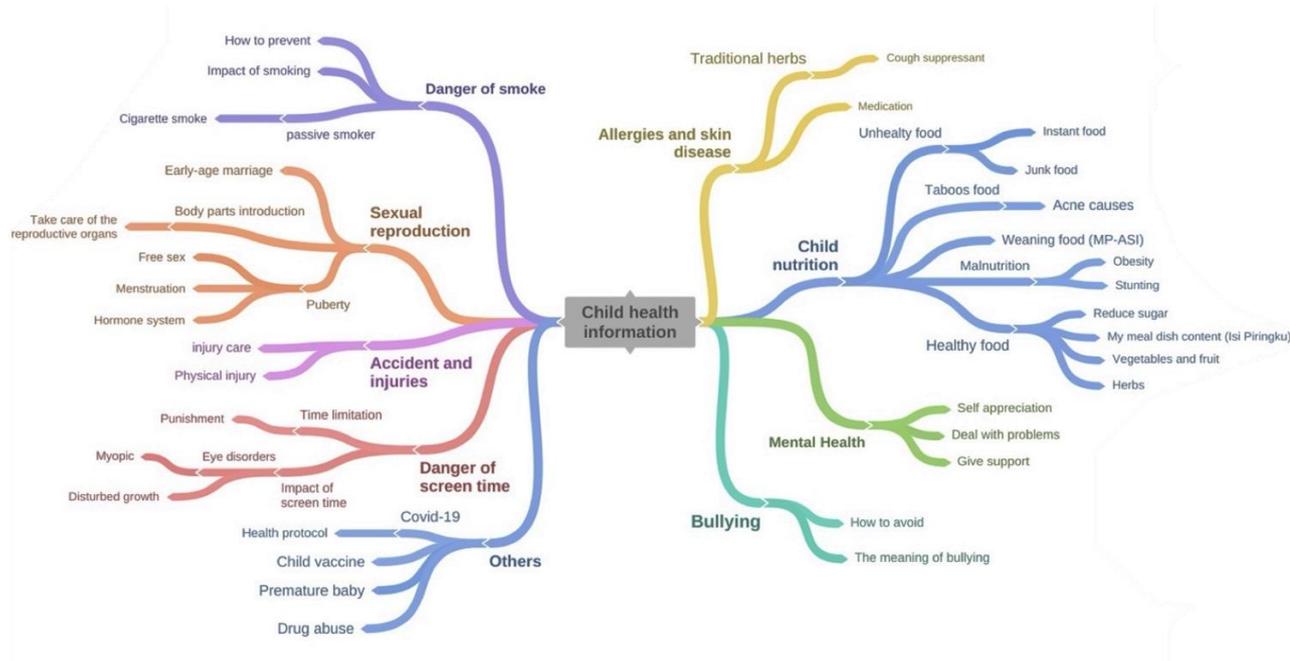


Fig. 2. Topics of parental interest in children's health issues

4. CONCLUSION

This study indicate that parents of school-age children track their children's health problems in different issue according to their children's conditions and characteristics. Health information about screen time risk was most frequently accessed by parents. Compared to other issues, the nutrition issue is significantly deeper. Considering as their school-age children require the best nutrition currently. This study indicates that it might be challenging to identify between real news and fake news or hoaxes when parents use the internet to explore health issues. This is because parents are becoming more literate. This might be a follow-up intervention to teach people how to get accurate information based on dependable sources.

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6. REFERENCES

Brindle, E., McConnell, D., Tattersall, M., Butow, P., & Boakes, R. (2002). Storytelling as a communication tool for health consumers: development of an intervention for parents of children with croup. *Stories to communicate health information. Patient Education and Counseling, 33*(2), 129–141.

Bryan, M. A., Evans, Y., Morishita, C., Midamba, N., & Moreno, M. (2020a). Parental Perceptions of the Internet and Social Media as a Source of Pediatric Health Information. *Academic Pediatrics, 20*(1), 31–38. <https://doi.org/10.1016/j.acap.2019.09.009>

Bryan, M. A., Evans, Y., Morishita, C., Midamba, N., & Moreno, M. (2020b). Parental Perceptions of the Internet and Social Media as a Source of Pediatric Health Information. *Academic Pediatrics, 20*(1), 31–38. <https://doi.org/10.1016/j.acap.2019.09.009>

Evans, D. K., Hares, S., Holland, P., & Acosta, A. M. (2021). *Adolescent Girls’ Safety In and Out of School : Evidence on Physical and Sexual Violence from across Sub-Saharan Africa* (Issue December 2021).

Fadare O, Amare M, Mavrotas G, Akerele D, & Ogunniyi A. (2019). Mother’s nutrition-related knowledge and child nutrition outcomes: Empirical evidence from Nigeria. *PLoS ONE, 14*, 1–17.

Gherunpong, S., Tsakos, G., & Sheiham, A. (2004). The prevalence and severity of oral impacts on daily performances in Thai primary school children. *Health and Quality of Life Outcomes, 2*, 1–8. <https://doi.org/10.1186/1477-7525-2-57>

- Gomez-baya, D., Garcia-moro, F. J., Nicoletti, J. A., & Lago-urbano, R. (2022). A Cross-National Analysis of the Effects by Bullying and School Exclusion on Subjective Happiness in 10-Year-Old Children. *Children*, 9(2), 1–12. <https://doi.org/10.3390/children9020287>
- Hermans, L., Van den Broucke, S., Gisle, L., Demarest, S., & Charafeddine, R. (2021). Mental health, compliance with measures and health prospects during the COVID-19 epidemic: the role of health literacy. *BMC Public Health*, 21(1), 1–9. <https://doi.org/10.1186/s12889-021-11437-w>
- Högberg, B., Strandh, M., Petersen, S., & Johansson, K. (2019). Education system stratification and health complaints among school-aged children. *Social Science and Medicine*, 220(August 2018), 159–166. <https://doi.org/10.1016/j.socscimed.2018.11.007>
- Ifroh, R. H., & Permana, L. (2022a). Do Parents Use The Internet And Social Media To Child. *Journal of Community Health*, 8(April), 171–180.
- Ifroh, R. H., & Permana, L. (2022b). Do Parents Use The Internet And Social Media To Child. *Journal of Community Health*, 8(April), 171–180.
- Jaks, R., Baumann, I., Juvalta, S., & Dratva, J. (2019). Parental digital health information seeking behavior in Switzerland: A cross-sectional study. *BMC Public Health*, 19(1), 1–11. <https://doi.org/10.1186/s12889-019-6524-8>
- Kemenkes RI. (2018). Riskesdas 2018 dalam Angka. In *Kementrian Kesehatan Republik Indonesia*.
- Kim, Y. S., Kim, H. S., Kim, H. A., Chun, J., Kwak, M. J., Kim, M. S., Hwang, J. I., & Kim, H. (2020). Can patient and family education prevent medical errors? A descriptive study. *BMC Health Services Research*, 20(1), 1–7. <https://doi.org/10.1186/s12913-020-05083-y>
- Lindsay, A. C., Arruda, C. A. M., MacHado, M. M. T., De Andrade, G. P., & Greaney, M. L. (2018). Exploring how Brazilian immigrant mothers living in the USA obtain information about physical activity and screen time for their preschool-aged children: A qualitative study. *BMJ Open*, 8(8), 1–10. <https://doi.org/10.1136/bmjopen-2018-021844>
- Maeve, D., Amanda, L., Cliffe, L., & Ellison, N. B. (2015). Parents and Social Media. *Pew Research Center*, July, 1–36.
- Millanzi, W. C., Kibusi, S. M., & Osaki, K. M. (2022). Effect of integrated reproductive health lesson materials in a problem-based pedagogy on soft skills for safe sexual behaviour among adolescents: A schoolbased randomized controlled trial in Tanzania. *PLoS ONE*, 17(2 February), 1–27. <https://doi.org/10.1371/journal.pone.0263431>
- Moen, Ø. L., Opheim, E., & Trollvik, A. (2019). Parents Experiences Raising a Child with Food Allergy; A Qualitative Review. *Journal of Pediatric Nursing*, 46, e52–e63. <https://doi.org/10.1016/j.pedn.2019.02.036>
- Moghbeli, M., Shahravan, A., Author, C., & Salajegheh, M. (2021a). Relationship between parents' oral hygiene information literacy and oral hygiene of public elementary school children in Education of Kerman, District 2 in 2017-2018. *Caspian Journal of Dental Research*, 10(1), 48–56.
- Moghbeli, M., Shahravan, A., Author, C., & Salajegheh, M. (2021b). Relationship between parents' oral hygiene information literacy and oral hygiene of public elementary school children in Education of Kerman, District 2 in 2017-2018. *Caspian Journal of Dental Research*, 10(1), 48–56.
- Mollborn, S., Limburg, A., Pace, J., & Fomby, P. (2022). Family socioeconomic status and children's screen time. *Journal of Marriage and Family*, May 2021, 1–23. <https://doi.org/10.1111/jomf.12834>
- National Institute of Diabetes and Digestive and Kidney Diseases. (2019, October). *Helping Your Child: Tips for Parents and Other Caregivers*. <https://www.niddk.nih.gov/health-information/weight-management/healthy-eating-physical-activity-for-life/helping-your-child-tips-for-parents>.
- Paraje, G., & Valdés, N. (2021). Changes in parental smoking behavior and children's health status in Chile. *Preventive Medicine*, 153(August). <https://doi.org/10.1016/j.ypmed.2021.106792>
- Pearson, N., Biddle, S. J. H., Griffiths, P., Johnston, J. P., & Haycraft, E. (2018a). Clustering and correlates of screen-time and eating behaviours among young children. *BMC Public Health*, 18(1), 1–9. <https://doi.org/10.1186/s12889-018-5698-9>
- Pearson, N., Biddle, S. J. H., Griffiths, P., Johnston, J. P., & Haycraft, E. (2018b). Clustering and correlates of screen-time and eating behaviours among young children. *BMC Public Health*, 18(1), 1–9. <https://doi.org/10.1186/s12889-018-5698-9>
- Permana, L., Afiah, N., Ifroh, R. H., & Wiranto, A. (2020). Analisis Status Gizi, Kebiasaan Makan dan Aktivitas Fisik pada Mahasiswa Kesehatan dengan Pendekatan Mix-Method. *Jurnal KEsehatan Husada Mahakam*, 10(2), 19–34.

- Permana, L., & Ifroh, R. H. (2022). Do Parents Use The Internet And Social Media To Child Health-Seeking Information? *Jurnal Kesehatan Komunitas*, 8(April), 171–180.
- Permana, L., Ifroh, R. H., & Wiranto, A. (2021). Pola Pencarian Informasi Kesehatan Anak dan Komunikasi Ibu Balita di Kalimantan Timur. *Jurnal Inovasi Penelitian*, 2(1), 167–180.
- Roden, R. C., Schmidt, E. K., & Holland-Hall, C. (2020). Sexual health education for adolescents and young adults with intellectual and developmental disabilities: recommendations for accessible sexual and reproductive health information. *The Lancet Child and Adolescent Health*, 4(9), 699–708. [https://doi.org/10.1016/S2352-4642\(20\)30098-5](https://doi.org/10.1016/S2352-4642(20)30098-5)
- Seguin, D., Kuenzel, E., Morton, J. B., & Duerden, E. G. (2021). School's out: Parenting stress and screen time use in school-age children during the COVID-19 pandemic. *Journal of Affective Disorders Reports*, 6, 100217. <https://doi.org/10.1016/j.jadr.2021.100217>
- Small, S. P., Eastlick Kushner, K., & Neufeld, A. (2012a). Dealing with a Latent Danger: Parents Communicating with Their Children about Smoking. *Nursing Research and Practice*, 2012, 1–15. <https://doi.org/10.1155/2012/382075>
- Small, S. P., Eastlick Kushner, K., & Neufeld, A. (2012b). Dealing with a Latent Danger: Parents Communicating with Their Children about Smoking. *Nursing Research and Practice*, 2012, 1–15. <https://doi.org/10.1155/2012/382075>
- Spering, C., Müller, G., Füzesi, L., Bouillon, B., Rütther, H., Lehmann, W., & Lefering, R. (2022). Prevention of severe injuries of child passengers in motor vehicle accidents: is re-boarding sufficient? *European Journal of Trauma and Emergency Surgery*. <https://doi.org/10.1007/s00068-022-01917-y>
- Spinelli, A., Buoncristiano, M., Kovacs, V. A., Yngve, A., Spiroski, I., Obreja, G., Starc, G., Pérez, N., Rito, A. I., Kunešová, M., Sant'Angelo, V. F., Meisfjord, J., Bergh, I. H., Kelleher, C., Yardim, N., Pudule, I., Petrauskiene, A., Duleva, V., Sjöberg, A., ... Breda, J. (2019a). Prevalence of severe obesity among primary school children in 21 European countries. *Obesity Facts*, 12(2), 244–258. <https://doi.org/10.1159/000500436>
- Spinelli, A., Buoncristiano, M., Kovacs, V. A., Yngve, A., Spiroski, I., Obreja, G., Starc, G., Pérez, N., Rito, A. I., Kunešová, M., Sant'Angelo, V. F., Meisfjord, J., Bergh, I. H., Kelleher, C., Yardim, N., Pudule, I., Petrauskiene, A., Duleva, V., Sjöberg, A., ... Breda, J. (2019b). Prevalence of severe obesity among primary school children in 21 European countries. *Obesity Facts*, 12(2), 244–258. <https://doi.org/10.1159/000500436>
- Statistical Bureau of Indonesia. (2020). Statistical Yearbook of Indonesia 2020. In *Statistik Indonesia 2020* (Vol. 1101001).
- Susanti, R., Ifroh, R. H., Wulansari, I., Gedung, S., & Fkm, D. (2018). Korban atau Pelaku School Bullying? (Are You Victims or Bullies). *Journals of Ners Community*, 09(1), 15–23.
- UNICEF Indonesia, & Agency, National Development Planning, P. (2019). *The situation of children and young people in Indonesian cities*.
- United Nations International Children's Emergency Fund. (2020). *Protecting children from violence in the time of COVID-19: Disruptions in prevention and response services*.
- Whiting, S., Buoncristiano, M., Gelius, P., Abu-Omar, K., Pattison, M., Hyska, J., Duleva, V., Musić Milanović, S., Zamrazilová, H., Hejgaard, T., Rasmussen, M., Nurk, E., Shengelia, L., Kelleher, C. C., Heinen, M. M., Spinelli, A., Nardone, P., Abildina, A., Abdrakhmanova, S., ... Breda, J. (2021a). Physical Activity, Screen Time, and Sleep Duration of Children Aged 6-9 Years in 25 Countries: An Analysis within the WHO European Childhood Obesity Surveillance Initiative (COSI) 2015-2017. *Obesity Facts*, 14(1), 32–44. <https://doi.org/10.1159/000511263>
- Whiting, S., Buoncristiano, M., Gelius, P., Abu-Omar, K., Pattison, M., Hyska, J., Duleva, V., Musić Milanović, S., Zamrazilová, H., Hejgaard, T., Rasmussen, M., Nurk, E., Shengelia, L., Kelleher, C. C., Heinen, M. M., Spinelli, A., Nardone, P., Abildina, A., Abdrakhmanova, S., ... Breda, J. (2021b). Physical Activity, Screen Time, and Sleep Duration of Children Aged 6-9 Years in 25 Countries: An Analysis within the WHO European Childhood Obesity Surveillance Initiative (COSI) 2015-2017. *Obesity Facts*, 14(1), 32–44. <https://doi.org/10.1159/000511263>
- WHO. (2018). WHO Mental Health Atlas 2017. *World Health Organization*, 2016, 1–81.
- Wild, C. E. K., Egli, V., Rawiri, N. T., Willing, E. J., Hofman, P. L., & Anderson, Y. C. (2022a). "It's more personal if you can have that contact with a person": Qualitative study of health information preferences of parents

and caregivers of children with obesity in New Zealand. *Health and Social Care in the Community*, August 2021, 1–10. <https://doi.org/10.1111/hsc.13756>

Wild, C. E. K., Egli, V., Rawiri, N. T., Willing, E. J., Hofman, P. L., & Anderson, Y. C. (2022b). “It’s more personal if you can have that contact with a person”: Qualitative study of health information preferences of parents and caregivers of children with obesity in New Zealand. *Health and Social Care in the Community*, August 2021, 1–10. <https://doi.org/10.1111/hsc.13756>

World Health Organization. (2020). *Preventing violence against children 2020: report for the who south-east asia region*.

Yaman, F., Çubukçu, A., Küçükali, M., & Yurdakul, I. K. (2021). An Investigation of Parents’ Use of Digital Media. *Shanlax International Journal of Education*, 10(1), 76–88. <https://doi.org/10.34293/education.v10i1.4327>

**Table 3. The relation between the health issue tracking among parents for their children and the parents' characteristics**

Variables	Sex		P-value	Socio demographic					P-value	Parents Education				P-value
	n=109 (%)			Profession of parent						n=109 (%)				
	Male	Female		Civil Servant/ Police/ Army	Private Employee	Entrepreneur	Housewife	Other		Primary school	Junior high school	Senior high school	College	
<b>Allergies and skin disease</b>														
Often	3 (10.0%)	27 (90.0%)	0.209	7 (23.3%)	3 (10.0%)	4 (13.3%)	16 (53.3%)	0 (0%)	0.010	0 (0%)	1 (3.3%)	13 (43.3%)	16 (53.3%)	0.252
Rarely	9 (19.0%)	38 (80.9%)		9 (19.1%)	7 (14.9%)	3 (10.0%)	23 (48.9%)	5 (10.6%)		4 (8.5%)	3 (6.4%)	21 (44.7%)	19 (40.4%)	
Never	2 (6.3%)	30 (93.8%)		5 (15.6%)	2 (6.3%)	1 (3.1%)	23 (48.9%)	1 (3.1%)		1 (3.1%)	8 (25.0%)	17 (53.1%)	6 (18.8%)	
<b>Mental health</b>														
Often	4 (25%)	12 (75%)	0.290	7 (43.8%)	1 (6.3%)	1 (6.3%)	7 (43.8%)	0 (0%)	0.087	0 (0%)	0 (0%)	6 (37.5%)	10 (62.5%)	0.208
Rarely	4 (10.8%)	33 (89.2%)		7 (18.9%)	5 (13.5%)	4 (10.8%)	18 (48.6%)	3 (8.1%)		2 (5.4%)	3 (8.1%)	15 (40.5%)	17 (45.9%)	
Never	6 (10.7%)	50 (89.3%)		7 (12.5%)	6 (10.7%)	3 (5.4%)	37 (66.1%)	3 (5.4%)		3 (5.4%)	9 (16.1%)	30 (53.6%)	14 (25.0%)	
<b>Bullying</b>														
Often	4 (21.1%)	15 (78.9%)	0.470	5 (26.3%)	0 (0%)	5 (26.3%)	9 (47.4%)	0 (0%)	0.096	3 (6.0%)	1 (5.3%)	8 (42.1%)	10 (52.6%)	0.012
Rarely	5 (12.5%)	35 (87.5%)		9 (22.5%)	7 (17.5%)	2 (5.0%)	20 (50%)	2 (5.0%)		2 (5.0%)	4 (10.0%)	14 (35.0%)	20 (50.0%)	
Never	5 (10.0%)	45 (90.0%)		7 (14.0%)	5 (10.0%)	5 (26.3%)	33 (66.0%)	4 (8.0%)		3 (6.0%)	7 (14.0%)	29 (58.0%)	11 (22.0%)	
<b>Sexual reproduction health</b>														
Often	5 (20.8%)	19 (79.2%)	0.301	10 (41.7%)	1 (4.2%)	2 (8.3%)	11 (45.8%)	0(0%)	0.163	0 (0%)	1 (4.2%)	9 (37.5%)	14 (58.3%)	0.018
Rarely	3 (7.5%)	37 (92.5%)		6 (15.0%)	6 (15.0%)	5 (12.5%)	19 (47.5%)	4 (10.0%)		2 (5.0%)	4 (10.0%)	18 (45.0%)	16 (40.0%)	
Never	6 (13.3%)	39 (86.7%)		5 (11.1%)	5 (11.1%)	1 (2.2%)	32 (71.1%)	2 (4.4%)		3 (6.7%)	7 (15.6%)	24 (53.3%)	11 (24.4%)	
<b>Accident and injuries</b>														
Often	5 (14.7%)	29 (85.3%)	0.256	5 (14.7%)	2 (5.9%)	7 (20.6%)	19 (55.9%)	1 (2.9%)	0.240	1 (2.9%)	1 (2.9%)	18 (52.9%)	14 (41.2%)	0.005
Rarely	7 (17.9%)	32 (82.1%)		12 (30.8%)	6 (15.4%)	1 (2.6%)	19 (48.7%)	1 (2.6%)		3 (7.7%)	4 (10.3%)	15 (38.5%)	17 (43.6%)	
Never	2 (5.6%)	34 (94.4%)		4 (11.1%)	4 (11.1%)	0 (0%)	24 (66.7%)	4 (11.1%)		1 (2.8%)	7 (19.4%)	18 (50.0%)	10 (27.8%)	
<b>Danger of smoking</b>														
Often	5 (16.1%)	26 (83.9%)	0.805	4 (45.2%)	5 (11.1%)	7 (22.6%)	14 (45.2%)	3 (9.7%)	0.070	2 (6.5%)	1 (3.2%)	14 (45.2%)	14 (45.2%)	0.553
Rarely	4 (12.1%)	29 (87.9%)		7 (21.2%)	4 (12.1%)	1 (3.0%)	19 (57.6%)	2 (6.1%)		1 (3.0%)	1 (3.0%)	16 (48.5%)	15 (45.5%)	
Never	5 (11.1%)	40 (88.9%)		10 (22.2%)	5 (11.1%)	0 (0%)	29 (64.4%)	1 (2.2%)		2 (4.4%)	10 (22.2%)	21 (46.7%)	12 (26.7%)	
<b>Danger of screen time</b>														
Often	8 (12.5%)	56 (87.2%)	0.976	14 (21.9%)	7 (10.9%)	7 (10.9%)	32 (50.0%)	4 (6.3%)	0.102	0 (0%)	4 (6.3%)	30 (46.9%)	28 (43.8%)	0.176
Rarely	3 (12.5%)	21 (87.5%)		3 (12.5%)	4 (16.7%)	1 (4.2%)	15 (62.5%)	1 (4.2%)		3 (12.5%)	3 (12.5%)	11 (45.8%)	7 (29.2%)	
Never	3 (14.3)	18 (85.7%)		4 (19.0%)	1 (4.8%)	0 (0%)	15 (71.4%)	1 (4.8%)		2 (3.1%)	5 (23.8%)	10 (47.6%)	6 (28.6%)	
<b>Child nutrition</b>														
Often	5 (11.6%)	38 (88.4%)	0.539	12 (27.9%)	6 (14.0%)	1 (2.3%)	22 (51.2%)	2 (4.7%)	0.025	2 (4.7%)	2 (4.7%)	15 (34.9%)	24 (55.8%)	0.021
Rarely	2 (8.0%)	23 (92.0%)		3 (12.0%)	5 (20.0%)	2 (8.0%)	14 (56.0%)	1 (4.0%)		2 (8.0%)	2 (8.0%)	13 (52.0%)	8 (32.0%)	
Never	7 (17.1%)	34 (82.9%)		6 (14.6%)	1 (2.4%)	5 (12.2%)	26 (63.4%)	3 (7.3%)		1 (2.4%)	8 (19.5%)	23 (56.1%)	9 (22.0%)	

\* significant <  $\alpha$