

## THE USE OF SOCIAL MEDIA AS A SOURCE OF COMPLEMENTARY FEEDING INFORMATION FOR MOTHERS

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### ABSTRACT

**Introduction:** In the digital age, social media (SM) has undeniably transformed the way parents access information, including complementary feeding (CF) practices. Approximately 57.1% mothers in Indonesia obtained information about CF from the internet, ranging from parenting forums to social media platforms like Instagram. **Aims:** To explore the use of SM as source of CF information among mothers in Indonesia. **Method:** Exploratory cross-sectional study was conducted in 1631 mothers of children 0-23 months in May 2023, using an online questionnaire. The analysis of the data was conducted using the statistical software SPSS 21.0 **Results:** Of all the subjects, the largest group consisted of those aged 26-30 years. A majority had a high level of education, had SM, and spent 30-60 minutes (59.2%) searching for CF information. Full-time mothers were more influenced by SM ( $p=0.043$ ). A notable distinction existed in the choice of social media based on the level of education. The higher the education, the more Instagram was used, while the lower the education, the more TikTok was used (mothers  $p=0.000$ ; fathers  $p=0.002$ ). The higher the education, the more information sources were sorted (mothers  $p=0.014$ ; fathers  $p=0.000$ ), and the more the educational background of the informant was considered (mothers  $p=0.000$ ; fathers  $p=0.000$ ). **Conclusion:** Mothers seek CF information from SM because it is faster, easier and convenient. However, it is often not evidence-based, and the amount of conflicting information confuses parents. Health efforts with a promotive approach that are evidence-based, understandable and applicable are needed and can be carried out through SM.

**Keywords:** complementary feeding, health education, internet, parenting

### INTRODUCTION

Nutrition plays a crucial role in ensuring the health, growth and development of children according to their potential. Inadequate nutrition can elevate the likelihood of diseases, impede both mental and physical development, and result in enduring growth and health complications (Stewart et al., 2013). Growth faltering begins when infants transition from exclusive breastfeeding to the complementary feeding (CF) phase

(Victora et al., 2010). Additionally, the WHO (World Health Organization) estimated that around 100,000 deaths in infants due to malnutrition can be prevented annually through appropriate complementary feeding practices (World Health Organization, 2003).

Complementary feeding is described as the phase that initiates when exclusive breastfeeding is no longer adequate to meet the nutritional requirements of infants, necessitating the introduction of supplementary foods and

liquids in conjunction with breast milk. This phase typically spans from 6 to 24 months, although breastfeeding might persist beyond the age of two years (World Health Organization, 2003). Beyond strategies for preventing diseases, interventions that focus on improving complementary feeding during this crucial period demonstrate notable effectiveness in diminishing malnutrition and fostering sound growth and development (Romero-Velarde et al., 2016). As per the WHO guidelines, introducing complementary feeding should be punctual, signifying the initiation of additional foods alongside breastmilk at the age of 6 months. The introduced foods must possess adequate nutritional value to fulfill the requirements of a rapidly growing child, incorporating diversity, suitable texture, and being offered in sufficient quantity (World Health Organization, 2003). Various methods have been utilized to enhance complementary feeding practices (Dewey and Adu-Afarwah, 2008). These methods involve educating mothers on nutrition to encourage healthy feeding habits, offering complementary foods, and providing food supplements fortified with multiple micronutrients or increased energy content.

The majority of parents recognize the importance of complementary feeding in establishing optimal growth and development foundations. Nevertheless, for parents, particularly mothers, the expectation to carry out complementary feeding practices proficiently and the sense of responsibility for their child's well-being can easily turn into a stress factor, causing mothers to feel anxious in their parenting role (Loudon et al., 2016). The need for information or guidance related to child rearing, particularly among parents, is understandable considering the transition into parenthood and its responsibilities. Parents seek information about childcare and child health in various formats, making it crucial to find effective ways to provide information about childcare and child health to parents (Spyreli et al., 2019).

The latest technological advancements have revolutionized how parents obtain information about child health, childcare, including complementary feeding practices. Currently, a significant amount of information can be accessed through various sources, including the internet. The internet's significance in our daily lives is growing, especially in the realm of providing healthcare services and interventions. The utilization of the internet for health purposes refers to any engagement with online information and tools aimed at enhancing one's health and overall wellness. Currently, one example of internet usage is through social media (SM), which has become widespread among mothers seeking information about child health and childcare, including CF.

As of the commencement of 2023, the global population has exceeded 8 billion, reaching 8.01 billion since its milestone on November 15, 2022. Presently, slightly over 57% of the global populace resides in urban areas. In the early months of 2023, 5.44 billion individuals worldwide, constituting 68 percent of the global population, were utilizing mobile phones. The count of unique mobile users has experienced a marginal increase of just over 3% in the past year, welcoming 168 million new users. At present, there are 5.16 billion internet users globally, making up 64.4% of the world's population. Over the preceding 12 months, the total number of internet users has seen a 1.9% rise, as per available data. It's worth noting that, due to delays in data reporting, the actual growth is likely to be even higher (Kemp, 2023).

At present, social media is utilized by 4.76 billion individuals worldwide, comprising just under 60% of the global population. The recent trend indicates a decline in social media usage, as the addition of 137 million new users this year equates to a meager 3% annual increase (Kemp, 2023). In the digital era, SM has evolved into an expansive platform that offers a wealth of information on various

subjects, including maternal feeding practices. For mothers, SM serves as a rich source of guidance, support, and information concerning the complexities of feeding their children. The use of SM as a source of CF information among mothers in Indonesia has not been explored. The objective of this research is to investigate how mothers in Indonesia utilize social media as a resource for complementary feeding information.

## METHODS

An exploratory cross-sectional study was conducted in May 2023 through social media. The inclusion criterion of this study was mothers of children aged 0-23 months. Subjects were excluded if their children met any of the exclusion criteria: history of chronic diseases (such as heart, liver or kidney disease) and special needs children (Cerebral palsy, Down's syndrome, etc.). Data collection took place in May 2023, employing an online questionnaire distributed through a link to a Google Form. Respondents participated in a self-administered survey that took approximately five minutes to complete. The questionnaire was created by the research team based on the results of the pilot study survey. There are 30 questions with closed and structured questions that can be answered in 5 minutes. The questions were presented in Indonesian through Google Form online. Data collection and analysis were conducted by the research team. The validity test was performed by correlating each item score with the total score using the Pearson product-moment correlation technique. The validity test with a sample size of  $n = 1631$  and a significance level ( $\alpha = 0.05$ ) revealed that the critical value ( $r$ -table) was 0.062. From the calculation of the Pearson product-moment correlation in the table above, it can be observed that the scores for each statement correlate significantly with the total score, as indicated by the calculated  $r$ -value being greater than the

critical  $r$ -value. Thus, it can be concluded that all questionnaire items are valid and can be used as a data collection tool for this research. The reliability test of the questionnaire was conducted using the Cronbach's alpha formula. The testing criteria state that if the Cronbach's alpha value is greater than 0.6, then the questionnaire item is considered reliable. In this research questionnaire, the Cronbach's alpha values for all variables are greater than 0.6. Therefore, all questionnaire items are considered reliable and suitable for use as data collection tools. The age of the mother and father is categorized into <20 years, 20-25 years, 26-30 years, 31-35 years, and >35 years. The baby's age is categorized into <6 months, 6-11 months, 12-23 months, >24 months. The time spent searching for information on social media is categorized as follows: <30 minutes, 30-60 minutes, 61-120 minutes, and >120 minutes. Over this period, 2350 individuals responded to the online survey; 719 were excluded due to their children being older than 24 months. The final sample comprised 1631 subjects. Statistical analysis was conducted using the chi square test in SPSS software, version 21.0. This study received approval from the Institutional Review Board of the Medical Faculty at Airlangga University under the reference number 128/EC/KEPK/FKUA/2023.

## RESULT

Of all the subjects, 69% were first-time mothers. Parental age was asked for both parents. The largest group of subjects consisted of those aged 26 to 30 years (48.3% fathers and 57.6% mothers), followed by the age range of 31 to 35 (33.8% fathers and 23.2% mothers). A majority had a high level of education (63.1% fathers and 67.5% mothers). 99.8% of mothers had social media (SM), and the majority spent 30-60 minutes (59.2%) searching for information about CF on SM. (Table 1).

**Table 1.** Respondents' Characteristic

| No                   | Demographic variables  | Sum                                   | Percentage |      |
|----------------------|--|---------------------------------------|------------|------|
| 1                    | <b>Daily Time Spent for Searching CF in SM</b>                                       |                                       | 23.4%      |      |
|                      | <30 min  |                                       | 59.2%      |      |
|                      | 30-60 min  |                                       | 11.3%      |      |
|                      | 61-120 min   |                                       | 6.1%       |      |
|                      | >120 min   |                                       |            |      |
| 2                    | <b>Relationship Of First Time Mothers and Time Spent Using SM for CF Information</b> |                                       |            |      |
|                      | <b>No</b>  |                                       |            |      |
|                      | <30 min  | 130                                   | 8.0%       |      |
|                      | 30-60 min  | 301                                   | 18.5%      |      |
|                      | 61-120 min   | 50                                    | 3.1%       |      |
|                      | >120 min   | 23                                    | 1.4%       |      |
|                      | <b>Yes</b>   |                                       |            |      |
|                      | <30 min  | 249                                   | 15.3%      |      |
|                      | 30-60 min  | 662                                   | 40.7%      |      |
|                      | 61-120 min   | 135                                   | 8.3%       |      |
|                      | >120 min   | 77                                    | 4.7%       |      |
|                      | 3  | <b>Source of CF Information In SM</b> |            |      |
|                      |  | Nutritionist                          | 109        | 6.7% |
| Midwife              |  | 60                                    | 3.7%       |      |
| Pediatrician         |  | 1069                                  | 65.5%      |      |
| General Practitioner |  | 12                                    | 0.7%       |      |
| Influencer           |  | 125                                   | 7.7%       |      |
| Family               |  | 105                                   | 6.4%       |      |
| Others               |  | 30                                    | 1.8%       |      |
| Nurse                |  | 6                                     | 0.4%       |      |
| Friend               |  | 115                                   | 7.1%       |      |
| 4                    | <b>Things that Mothers Worry About the Most During CF Period</b>                     |                                       |            |      |
|                      | Food allergy   | 185                                   | 11.3%      |      |
|                      | Feeding difficulties   | 949                                   | 58.2%      |      |
|                      | Breastmilk/formula intake  | 136                                   | 8.3%       |      |
|                      | Food safety  | 125                                   | 7.7%       |      |
|                      | Food that should be given  | 62                                    | 3.8%       |      |
|                      | Food texture   | 46                                    | 2.8%       |      |
|                      | Choking  | 128                                   | 7.8%       |      |
| 5                    | <b>Reason for using SM</b>   |                                       |            |      |
|                      | Many information   | 146                                   | 9.0%       |      |

| No | Demographic variables   | Sum  | Percentage |
|----|---|------|------------|
|    | Can choose relevant information that fits the child's condition                     | 169  | 10.5%      |
|    | Faster access   | 272  | 16.7%      |
|    | Easier access   | 13.6 | 222.0%     |
|    | More understandable   | 119  | 7.3%       |
|    | Cheaper   | 44   | 2.7%       |
|    | More trustworthy  | 26   | 1.6%       |
|    | More updated  | 176  | 10.8%      |
|    | As an additional information from healthcare professionals                          | 457  | 28.0%      |
| 6  | <b>Weakness of CF Information in SM</b>   |      |            |
|    | Risk of misleading  | 206  | 12.6%      |
|    | Accuracy  | 271  | 16.6%      |
|    | Does not always fit the child's condition   | 192  | 11.8%      |
|    | Incomplete  | 72   | 4.4%       |
|    | Confusing (too much information)  | 414  | 25.4%      |
|    | Cannot ask directly   | 476  | 29.2%      |
| 7a | <b>Relationship of Parents' Level of Education with Type of SM used (Instagram)</b> |      |            |
|    | <b>Mothers</b>  |      |            |
|    | SD  |      | 0.0%       |
|    | SMP   |      | 0.2%       |
|    | SMA   |      | 6.5%       |
|    | D1/D2/D3  |      | 6.8%       |
|    | D4/S1   |      | 32.3%      |
|    | S2  |      | 4.6%       |
|    | S3  |      | 0.0%       |
|    | <b>Fathers</b>  |      |            |
|    | SD  |      | 0.1%       |
|    | SMP   |      | 0.4%       |
|    | SMA   |      | 10.8%      |
|    | D1/D2/D3  |      | 5.7%       |
|    | D4/S1   |      | 28.9%      |
|    | S2  |      | 4.5%       |
|    | S3  |      | 0.1%       |
| 8  | <b>Relationship of Parents' Level of Education with Type of SM used (TikTok)</b>    |      |            |
|    | <b>Mothers</b>  |      |            |
|    | SD  |      | 0.1%       |
|    | SMP   |      | 0.3%       |

| No | Demographic variables | Sum | Percentage |
|----|-----------------------|-----|------------|
|    | SMA                   |     | 10.5%      |
|    | D1/D2/D3              |     | 8.2%       |
|    | D4/S1                 |     | 27.8%      |
|    | S2                    |     | 2.6%       |
|    | S3                    |     | 0.0%       |
|    | <b>Fathers</b>        |     |            |
|    | SD                    |     | 0.2%       |
|    | SMP                   |     | 0.4%       |
|    | SMA                   |     | 13.9%      |
|    | D1/D2/D3              |     | 5.2%       |
|    | D4/S1                 |     | 27.4%      |
|    | S2                    |     | 2.2%       |
|    | S3                    |     | 0.1%       |

First time mothers were also more influenced by CF information in SM ( $p=0.043$ ) but were not related to more time spent using social media each day. Subjects reported receiving information on SM from various sources, including pediatricians (65.5%), influencers (7.7%), friends/neighbors (7.1%), nutritionists (6.7%), and family (6.4%). The most sought-after contents were tips to handle fussy eaters (82.22%), foods that should or should not be given (55.18%), and portion sizes (44.82%). The things that mothers worry about the most during the CF period are feeding difficulties (58, 2%), food allergy (11, 3%) and breastmilk/formula intake (8, 3%). The most reasons for using SM were as follows: additional

information from healthcare professionals (28%), faster access (10.8%), and ease of use (13.6%). The weaknesses of using SM were that parents could not ask for more details (29.2%), information overload causing confusion (25.4%), and the accuracy of information sometimes being questionable (16.6%). There was no significant difference between SM use and parents' age or level of education. However, there was a significant difference between the type of SM used and parents' age or level of education. The higher the education, the more Instagram was used, while the lower the education, the more TikTok was used (mothers  $p<0.001$ ; fathers  $p=0.002$ ).

**Table 2.** Relationship Between Parents' Level of Education and Attempts to Verify CF Information on SM

| Levels of Education |          | Attempts to verify CF Information |                               | p Value |
|---------------------|----------|-----------------------------------|-------------------------------|---------|
|                     |          | Sorting from trustworthy accounts | Cross-check with pediatrician |         |
| Mothers             | D1/D2/D3 | 177 (10.90%)                      | 67 (4.10%)                    | 0.014   |
|                     | D4/S1    | 688 (42.30%)                      | 290 (17.80%)                  |         |
|                     | S2       | 77 (4.70%)                        | 42 (2.60%)                    |         |
|                     | SD       | 1 (0.10%)                         | 0 (0.00%)                     |         |

| Levels of Education |          | Attempts to verify CF Information |                               | p Value |
|---------------------|----------|-----------------------------------|-------------------------------|---------|
|                     |          | Sorting from trustworthy accounts | Cross-check with pediatrician |         |
| Fathers             | SMA      | 220 (13.50%)                      | 56 (3.40%)                    | <0.001  |
|                     | SMP      | 8 (0.50%)                         | 1 (0.10%)                     |         |
|                     | D1/D2/D3 | 120 (7.40%)                       | 57 (3.50%)                    |         |
|                     | D4/S1    | 642 (39.50%)                      | 275 (16.90%)                  |         |
|                     | S2       | 73 (4.50%)                        | 37 (2.30%)                    |         |
|                     | S3       | 0 (0.00%)                         | 2 (0.10%)                     |         |
|                     | SD       | 6 (0.40%)                         | 0 (0.00%)                     |         |
|                     | SMA      | 322 (19.80%)                      | 80 (4.90%)                    |         |
|                     | SMP      | 8 (0.50%)                         | 5 (0.30%)                     |         |

There was significant difference between mothers' and fathers' level of education and their attempts to verify CF information from SM. The higher the education, the more information sources were sorted from trusted SM accounts (mothers  $p=0.014$ ; fathers  $p<0.001$ ), and the more the educational background of the

informant was considered (mothers  $p=0.000$ ; fathers  $p<0.001$ ) (Table 2).

However, there was no noteworthy distinction in the age of mothers and fathers concerning their efforts to confirm complementary feeding information from social media, as outlined in Table 3.

**Table 3.** Relationship between Parents' Age and Attempts to Verify CF Information in SM

| Age (Years) |       | Attempts to verify CF Information |                               | p Value |
|-------------|-------|-----------------------------------|-------------------------------|---------|
|             |       | Sorting from trustworthy accounts | Cross-check with pediatrician |         |
| Mothers     | <20   | 4 (0.20%)                         | 0 (0.00%)                     | 0.051   |
|             | >35   | 37 (2.30%)                        | 19 (1.20%)                    |         |
|             | 20-25 | 190 (11.70%)                      | 63 (3.90%)                    |         |
|             | 26-30 | 687 (42.90%)                      | 249 (15.30%)                  |         |
|             | 31-35 | 253 (15.609%)                     | 125 (7.70%)                   |         |
| Fathers     | <20   | 1 (0.10%)                         | 0 (0.00%)                     | 0.094   |
|             | >35   | 133 (8.20%)                       | 64 (3.90%)                    |         |
|             | 20-25 | 78 (4.80%)                        | 17 (1.00%)                    |         |
|             | 26-30 | 570 (35.00%)                      | 213 (13.10%)                  |         |
|             | 31-35 | 389 (23.90%)                      | 162 (10.00%)                  |         |

## DISCUSSION

Social media is characterized as a type of electronic communication where users disseminate information and content within online communities (Pretorius et al., 2019). Instances of social media platforms encompass Twitter, TikTok, Telegram,

Instagram, Facebook, Snapchat, YouTube, WhatsApp, Pinterest, and LinkedIn. These platforms host diverse content, including user-generated posts, articles, videos, and expert advice, creating a vast repository of information. There are 88% of Americans aged 18-29 used social media (Smith and Anderson, 2018). A total of 83% of parents

online utilized social media, with 74% of online parents specifically employing Facebook (Duggan et al., 2015). Research on the online behaviors of American parents indicated that approximately 70% of them employed the internet to seek health-related and medical information, as one example (Allen and Rainie, 2002). The number of active social media users in Indonesia was 153.7 million individuals aged 18 and above in January 2023. This figure is equivalent to 79.5% of the adult population in the country, with 46.8% of the users being female. By age group, the most users are in the age group of 18-24 (female 15.4% and male 16.6%), 25-34 (female 14.0% and male 16.6%) followed by 35-44 years old (female 7.3% and male 9.5%). The average time spent using social media each day is 3 hours and 18 minutes, and the average number of social platforms used each month is 8.4 (Kemp, 2023).

In Indonesia, the most used social media platforms are WhatsApp, Instagram, Facebook, TikTok and Telegram (Kemp, 2023). In our study, 99.3% mothers routinely used Instagram, 81.48% WhatsApp, 57.02% Facebook, 49.4% TikTok and 46.8% YouTube to search information about CF. In our study, there was no significant difference between SM use and parents' age or level of education. However, there was a significant difference between the type of SM used and parents' age or level of education. The higher the education, the more Instagram was used, while the lower the education, the more TikTok was used (mothers  $p=0.000$ ; fathers  $p=0.002$ ).

A study conducted in France on 1001 parents with children aged 0-3 years showed that mothers who have just had their first child are the most active in seeking information on the internet; 79% of mothers obtain information related to CF from the internet, where they search for various content such as example recipes or menus (63%), portion sizes of complementary feeding according to age (55%), introduction to complementary

feeding (54%), and strategies for offering complementary feeding to children who have difficulties eating, picky eaters, etc. (53%) (Asiodu et al., 2015). In a market research investigation conducted by the online network company Yahoo!, it was disclosed that 86% of parents-to-be use the internet to seek information about pregnancy (Yahoo!, 2005). This discovery is corroborated by qualitative research that investigates how pregnant women and mothers of young children search for and process pediatric information on the internet (Bernhardt and Felter, 2004). The research suggests that a significant proportion of mothers depend on the internet for health-related information. Among younger first-time mothers, the internet is frequently regarded as their primary information source, while older first-time parents and those with older children typically turn to books or consult directly with doctors before turning to the internet.

In line with the aforementioned study, our research also indicated that, among all subjects, first-time mothers were the most active in seeking CF information on social media. First time mothers were also more influenced by CF information in SM ( $p=0.043$ ) but were not related to more time spent using social media each day.

The type of information they mostly search for were the tips to handle fussy eaters (82.22%), foods that should or should not be given (55.18%), and portion sizes (44.82%). Research on millennial mothers in Thailand shows the reasons why mothers seek information about CF on social media. This encompasses endeavors to diminish uncertainty during the complementary feeding stage by acquiring knowledge and comprehending the practices of other mothers, seeking support from peer groups to implement complementary feeding principles, and leveraging social media for its accessibility, cost-effectiveness, and practicality in obtaining information. (Supthanasup et al., 2022). In a study



conducted in Glasgow involving 64 mothers with children aged 4-12 months, it was found that 91% of CF information was obtained from friends and family, 89% from the internet (including social media), and 77% from healthcare providers. Mothers often feel that the information provided by healthcare providers is inadequate. They feel the need for tips and tricks from other experienced mothers regarding CF (Garcia et al., 2019). Another study on 43 mothers showed that the most frequent questions asked via social media were about complementary feeding, teething, and breastfeeding (Kallem et al., 2018). In Indonesia, research involving 133 mothers with children aged 6-24 months revealed that a significant portion of mothers (57.1%) acquired information about complementary feeding from the internet, spanning from parenting forums to social media platforms such as Instagram (Nabihah et al., 2022). Various studies have demonstrated that the majority of parents, especially mothers, seek information about their child's CF from social media.

One of the key benefits of social media is its capacity to establish communities, enabling parents to connect with others who have similar concerns and fostering a sense of support and camaraderie. Platforms like Facebook groups or parenting blogs allow individuals to share personal experiences, offer advice, and seek suggestions from a diverse pool of individuals. This communal support is invaluable, offering emotional support, reassurance, and practical insights that may not be readily available through traditional medical sources.

Parents prefer to seek information about childcare and child health on the internet, including social media, due to its instant and quick nature (Lupton, 2016). Mothers tend to feel hesitant to ask questions that might be considered trivial by doctors, so searching for information on social media makes them more comfortable. In our research, mothers felt

that the information provided by doctors is inadequate, unclear and less practical, such as the absence of information on how to cook CF, how to store it, its nutritional content, etc. According to the study, mothers preferred to obtain information in the form of videos, such as the required portion size of complementary feeding for infants, menus or recipes for CF, how to feed babies, and frequently asked questions such as whether it is permissible to add sugar and salt to CF.

Parents with lower income levels prefer seeking health information for their children on social media rather than directly consulting a doctor or other healthcare providers. In addition to being more easily accessible, instant, and swift, information on social media is also more cost-effective for parents compared to information obtained directly from healthcare providers (Naftel et al., 2013). However, more recent research shows that there is no significant income difference among parents seeking health information and care for their children on social media (Lee, 2018). This can be explained by the increasing proliferation of technology. There is no correlation between parents utilizing the internet (including social media) to seek health information and the primary utilization of healthcare services for their children. The internet seems to function as supplementary support to health services for specific individuals rather than a replacement. Individuals are increasingly proactive in managing their health, using the internet to access health-related information as a preventive measure. Those who use the internet for health information report improved well-being, which, over time, may lead to decreased healthcare costs (Bouche and Migeot, 2008). One study that utilized a qualitative methodology to explore the significance and nuances of diverse health information sources and their impact on decision-making among Hispanic mothers with children in the first thousand days of life showed mothers turned to medical

professionals, both online and in-person, as well as sought advice from experienced male and female parents. The findings revealed that Hispanic women, especially those who were immigrants with limited or no local family support, favored communication strategies and interventions that engaged their extended family and trusted websites recommended by their healthcare providers (Kallem et al., 2018).

Our study revealed that 96.9% of subjects followed health care professional's social media account. Beside pediatricians (65.5%), mothers also got CF information from influencers (7.7%), friends/neighbors (7.1%), nutritionists (6.7%), family (6.4%), and General Practitioners (GPs). If the number 1 indicated very untrustworthy and number 5 indicated very trustworthy, the average of mothers' level of trust in the source of CF information was 4.4 (pediatricians), 3.3 (GPs), 3.7 (nutritionists/midwives/nurses) and 2.7 (celebrities/influencers).

Parents often feel confused when managing conflicting information about child health and childcare on social media. The abundance of information available on social media, provided by various healthcare professionals, can indeed contradict one another (Frey et al., 2022). In Indonesia, nowadays there is so much CF information that contradicts, such as the use of sugar and salt in complementary feeding, the portion of fruits and vegetables in complementary feeding, the source of fats in complementary feeding, etc. While having its benefits, social media also presents certain risks when relied upon as the main source of information regarding children's health. Misinformation and misinterpretation of facts are prevalent, leading to confusion and potentially harmful decisions. Unverified, anecdotal information can spread rapidly, leading to unwarranted fear or incorrect self-diagnoses. Furthermore, the lack of regulation and quality control on these platforms can contribute to the

dissemination of unreliable or biased information.

Many parents verify information from social media with their doctors. However, many also make decisions based on their personal intuition. Confusion and misunderstandings often occur among parents when receiving complex information or using terminology that is difficult to understand. In our research, a notable correlation was observed between the level of education and the effort to authenticate complementary feeding information on social media. The higher the education, the more information sources were sorted from trusted SM accounts (mothers  $p=0.014$ ; fathers  $p=0.000$ ), and the more the educational background of the informant was considered (mothers  $p=0.000$ ; fathers  $p=0.000$ ). Meanwhile, there was no significant relationship between mother's or father's age and the attempts to verify CF information in SM.

Numerous parents, particularly those experiencing parenthood for the first time, generally express positivity toward the information they discover on the internet. They often find it more accessible and current compared to information offered by healthcare professionals, particularly in areas such as maternity care (O'Connor and Madge, 2004). Studies show that gender differences exist in the tendency to verify information acquired from the internet. Men exhibit less apprehension regarding the reliability of online health information compared to women (Cotten and Gupta, 2004).

The primary disadvantage of health information on social media lies in its deficiency in quality and reliability. Information circulating on social media is often not scientifically proven. Currently, many parents are seeking evidence-based health and childcare information. Although information circulating on social media is sometimes not scientifically proven, it can still be utilized due to the lack of access to easily accessible, affordable, and

understandable evidence-based information (Lee, 2018). Based on our study, the weaknesses of using SM were that parents could not ask for more details (29.2%), information overload causing confusion (25.4%), the accuracy of information sometimes being questionable (16.6%) and that questionnaires typically rely on predetermined response options, limiting participants' ability to offer comprehensive responses.

Our research strength lies in the large sample size, and to our knowledge, it is the first study exploring the use of social media by mothers as a source of information regarding complementary feeding in Indonesia. This study's constraint emerges due to the necessity for participants to complete a structured questionnaire, potentially restricting the acquisition of detailed and nuanced insights.

## CONCLUSIONS

In the age of digital connectivity, social media has transformed into an influential platform shaping various aspects of our lives. Among its numerous functions, social media has emerged as a crucial reservoir of health information for mothers, especially regarding their children.

This research is the first study in Indonesia to investigate the use of social media by mothers as a source of information related to complementary feeding. Its limitation lies in the questionnaire, which employs closed-ended questions, thus limiting the exploration of the strengths and weaknesses of CF information sources on social media. Further research on forms of education that are evidence-based, understandable and more easily accepted by mothers is highly necessary.

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