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# Use of Social Media to Raise Public Health Literacy Awareness in West Kalimantan

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**Abstract**
The low health literacy in West Kalimantan, especially in the rural and border areas, is still a problem because access to information and health services is lacking. Social media serves as an alternative means to get health information. Most previous research tends to focus on social media users in the urban area. The study aims to analyse the use of social media by people in Sambas Regency to increase health literacy awareness. The factors that support and the barriers faced by people in Sambas Regency are also discussed. Uses and Gratifications Theory is the analytical approach used to reveal the motives of audiences. The research uses a qualitative approach with the instrument case study, instrumental case study (single case). Primary data are collected from 50 informants from eight sub-districts purposively selected. Secondary data are collected from social media postings, regional statistical data and the health profile of the regency. Semi-structured interview, content analysis and document reviews were employed as data collection tools. Reflexive Thematic Analysis was used for the data analysis. The result shows that Facebook, Whatsapp, Instagram and TikTok have been used daily in the health communication. Forty-nine of 50 informants obtained benefits from the use of social media. The use of social media can provide wider access to information, increase knowledge, preventive awareness, and the sharing of information to the family and community. The use of social media is supported by the ease of access, the need for information due to health complaints, protection of family health, media habit and trust in health professionals. The main obstacle in finding information on health is the prevalence of hoaxes, the lack of signal coverage and data allowance, the difficulty to assess the credibility of information, and unequal availability of health education. These results suggest that the benefits of social media for health literacy are at the level of awareness. There is a need for the active role of the health department, the involvement of local health professionals, and digital literacy.
**Keywords**: social media, health literacy, Uses and Gratifications, Sambas regency

## Background

Everyone wants a healthy life, but it takes sufficient health knowledge to achieve that. Health literacy is the ability of a person to get, understand, and apply health information for making appropriate health decisions that maintain and improve their health and the health of their family (World Health Organization, 2020). The level of health literacy in Indonesia generally still low. According to national survey, only around 30-40% of population have sufficien health literacy (based on the data of the Ministry of Health Indonesia in 2022) (Kementerian Kesehatan RI, 2022). With the advances in the development of information technology and the rapid growth of the internet, various opportunities were opened. The current condition of 200 million active social media users each month in 2023. Of those, 70% use social media to find health information (especially for those aged 18-34). Based on the research, social media utilization to find and share information on health, support exchange, and self-monitoring (Chen & Wang, 2021) can increase awareness of health literacy through easily accessible education campaign. The study by Hwang & Jeong (2019) on the relationship between exposure to health campaign in social media and behavioral change. Furthermore, there was a significant positive relationship between frequency of exposure to the awareness and willingness to adopt healthy behavior. In China, studies also reveal that the use of social media for health-related issues and health literacy affects intention to find health information by using self-efficacy and there is a moderation effect of age and prior experience on the strength of relationship (Niu et al., 2021). Not only exposure to information in social media, but factors that can improve health literacy are the understanding of health concept and implementation of healthy behavior in daily life (Zukhrufa Aura Madani et al., 2025).

An evaluation in Southeast Asia highlighted that the utilization of social media-based campaigns can increase the comprehension of health information by 25% (Nguyen et al., 2023). Nevertheless, such evidence of health information utilization using social media is mostly retrieved from online surveys conducted among highly educated urban people. Little is known about the utilization of social media for health information among residents of border regencies with unpredictable signal conditions, where farmers, teachers, traders, and housewives live side by side. That could be the case in Sambas Regency, the most northern regency of West Kalimantan province adjacent to Sarawak, Malaysia. The difference in digital access between rural and urban households in Indonesia is still significant (Setyanti et al., 2025). Therefore, it is incorrect to assume that the experience of residents from such areas is the same as city dwellers. However, the problem is the distribution of misinformation, which is a problem that must be addressed. According to WHO data, 20-30% of health information on social media in developing countries is in the form of hoaxes, so that it will damage

public trust (World Health Organization, 2021). Referring to the data from APJII (2023), the internet penetration rate in West Kalimantan continues to increase. Social media like Facebook, Instagram, WhatsApp, and TikTok are the main places for interaction and seeking information. Ironically, even though it increases, there is no corresponding increase in literacy. Especially in rural and remote areas where access to health information is limited. Referring to the data from Statistics Indonesia (BPS), 60% of West Kalimantan has internet access below the national average (BPS Indonesia, 2023). This is due to various factors, such as West Kalimantan's vastness (about 147.307 km2 with low population density (only 35 people per km2) and unequal education level (health literacy level in urban areas can reach 70%, while in rural areas, it only reaches 50%). Moreover, the inadequate health infrastructure (Sari & Sari, 2022) causes people to use social media, such as Facebook, Instagram, or TikTok, as an alternative medium to obtain health information. These platforms are more accessible and interactive. The problem of health in West Kalimantan is still a big problem, including malaria, tuberculosis, and stunting, which needs the right approach to health communication. The health literacy rate in West Kalimantan is quite low (in a regional study, the health literacy in rural areas only reached 25%, while in urban areas, it reached 45% (good literacy skill) (Indrawati et al., 2023). Hence, this article would discuss how social media can be used to increase awareness on health literacy in West Kalimantan. There are some questions that will be discussed, such as (1) How is the current condition of social media usage for health literacy in West Kalimantan?, (2) What are the factors that affect the success of health literacy through social media?, and (3) What are the main challenges in disseminating health literacy via social media?

**Theoretical Review**

Uses and Gratifications Theory This study uses the uses and gratifications theory in that it does not focus on the effects of health messages and their audiences. Instead, it focuses on social media behavior. Katz et al. (1973) reframed the question from “what do the media do to people?” to “what do people do with the media?” The theory presupposes that audiences are active and focused on fulfilling their needs, and thus are in control of their goals and purposes. One of the core concepts of the theory is the gap between gratifications sought and gratifications obtained. It is this gap which determines if a person will continue using a particular medium. Ruggiero (2000) suggests that the new media which are interactive, demassified and asynchrone, actually corroborate the assumptions on which this theory is founded. From the nature of social media, users do not only receive messages; they also create, comment on, and forward messages, thereby increasing audience participation to include message distribution.

**Categories of Needs in Recent Studies**

Katz, Gurevitch, and Haas (1973) classified media needs into five categories, and a systematic review by Nikita (2026) shows that this typology still underpins social media research. First, cognitive needs, the drive to obtain information, constitute the most dominant motive: 85.4% of Generation Z respondents used Instagram to seek information (Septiana et al., 2024), while older adults used WeChat to meet their needs for health information and surveillance (Zhang et al., 2021). Second, affective needs are evident in entertainment as the main motive for using TikTok (Herna, 2022; Falgoust et al., 2022) and in hedonic experiences that drive continued use (Abbasi et al., 2023). Third, personal integrative needs appear in self-presentation and in the desire to manage one's own health independently (Zhang et al., 2021), including the credibility of health workers whom followers regard as mentors (Saw et al., 2021). Fourth, social integrative needs are reflected in the 77% of respondents who used Instagram to build relationships (Septiana et al., 2024); sharing health information online even strengthens health literacy and social support (Le et al., 2023). Fifth, tension-release needs cut both ways: they can lead to addiction (Gu et al., 2022; Herna, 2022), yet they also open space for education, as most young women who use TikTok have obtained health information there, both intentionally (65.5%) and unintentionally (92.4%) (Kirkpatrick & Lawrie, 2024). Findings in Indonesia reinforce this pattern. The intensity of use of a diet-education TikTok account influenced the fulfillment of health information needs by 35.4% (Apriyana et al., 2023), and clinic patients used Instagram to obtain current, routine, and specific information (Agustin et al., 2025). However, both studies were conducted among urban users, leaving the experiences of rural and border communities largely unexamined. This study seeks to fill that gap.

**Relevance and Limitations of the Theory**

For this study, gratifications obtained explain the first question, namely increased knowledge, growing preventive awareness, and the practice of sharing information. Gratifications sought explain the second question regarding driving factors, while the gap between the two explains the barriers addressed in the third question. Nevertheless, the theory tends to emphasize individual choice and relies on self-reports, even though trust in sources and platform design also shape user engagement (Stifjell et al., 2025). The theory also gives insufficient attention to structural barriers, such as limited network coverage and the cost of data quotas, which are precisely what residents of rural and border areas such as Sambas Regency experience. For this reason, the discussion complements it with the concepts of source credibility, the elaboration likelihood model, and the digital divide.

## Methodology

### Qualitative Approach

This study uses a qualitative approach to gain an in-depth understanding of how social media (Facebook, Instagram, WhatsApp, and TikTok) is used to raise health literacy awareness among communities in West Kalimantan. This approach was chosen because the research aims to explore the experiences and meanings people attach to these practices rather than to measure the magnitude of relationships between variables. Creswell and Poth (2018) explained that qualitative research examines the meanings individuals or groups ascribe to a social problem, with data collected in a natural setting and the researcher acting as the key instrument. Denzin and Lincoln (2018) described it as a set of interpretive and naturalistic practices, while Merriam and Tisdell (2016) emphasized its concern with how people interpret their experiences and construct their worlds. This approach is consistent with the uses and gratifications theory, since audience motives and gratifications are best explored through the audience's own accounts. The trustworthiness of the findings was maintained through the criteria of credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985), implemented through source triangulation, thick description of the context, and systematic documentation of the analysis.

### Case Study Method

This study adopts the case study method as its main strategy. Yin (2018) defined a case study as an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-world context, especially when the boundaries between phenomenon and context are not clearly evident. The method is suited to “how” and “why” questions when the researcher cannot control the events under study. Harrison et al. (2017) identified its main characteristics as a bounded system, a holistic inquiry, the use of multiple data sources, and a strong attention to context, while Priya (2021) highlighted its strength in combining several data collection techniques. Following Stake's (1995) typology, this study is an instrumental case study: Sambas Regency is examined to understand a broader issue, namely how residents of rural and border areas with limited digital access meet their health information needs. The design is an embedded single case, with the eight districts where the informants live serving as units of analysis. The findings aim at analytic generalization that enriches theoretical concepts rather than at statistical generalization (Yin, 2018).

### Data Sources and Selection of Informants

The study draws on primary and secondary data. Primary data were obtained through interviews with 50 informants living in eight districts of Sambas Regency: Tebas, Semparuk, Jawai, Tekarang, Sebawi, Teluk Keramat, Paloh, and Pemangkat. Informants were selected purposively, that is, by choosing people who could provide the richest information about the phenomenon under study (Palinkas et al., 2015). The criteria were (1) residence in Sambas Regency, (2) active use of at least one social media platform, namely Facebook, WhatsApp, Instagram, or TikTok, and (3) experience in seeking or receiving health information through social media. The spread of districts was considered so that coastal areas, border areas, and areas with varying network access were represented. Some informants work in the health sector and could therefore offer the perspective of information providers. The adequacy of the number of informants was assessed on the basis of information power rather than statistical calculation (Malterud et al., 2016). Secondary data came from social media posts accessed by the informants and from regional statistical documents.

### Data Collection Techniques

Data were gathered through three complementary techniques. The first was semi-structured interviews with 50 informants from eight districts of Sambas Regency. This technique was chosen because it combines a focused interview guide with the flexibility to probe answers through follow-up questions, allowing the researchers to gain an in-depth understanding of informants' thoughts, beliefs, and experiences (DeJonckheere & Vaughn, 2019). The interview guide covered knowledge of social media, patterns of health information seeking, trust in information sources, and the barriers informants encountered. The second was content analysis of health-related posts on Facebook, Instagram, WhatsApp, and TikTok accessed by the informants, in order to examine message types, presentation formats, and levels of audience engagement (Krippendorff, 2019). The third was a review of documents, including regional statistics, the regency health profile, and official reports. Morgan (2022) noted that existing documents can enrich the understanding of context while reducing ethical concerns in data collection. Using these three techniques enabled source triangulation, one of the main strengths of the case study design (Yin, 2018).

### Data Analysis Techniques

Interview data were analyzed using reflexive thematic analysis as developed by Braun and Clarke (2022). The analysis proceeded in six phases: familiarization with the data through repeated reading of transcripts, generating initial codes, constructing initial themes, reviewing themes, defining and naming themes, and writing the final report. These phases were not applied rigidly but recursively, as the researchers repeatedly returned to the data whenever the meaning of a code or theme was unclear (Byrne, 2022). Coding and theme development were supported by NVivo software to keep

the large volume of data organized and traceable (Jackson & Bazeley, 2019). The resulting themes were then linked to the three research questions and interpreted through the uses and gratifications framework. Meanwhile, social media post data were examined through content analysis to identify health message themes, content types, and levels of audience engagement (Krippendorff, 2019). The results of both analyses were compared with the documentary data to strengthen the credibility of the findings and enrich the interpretation of the Sambas Regency context.

## Results

### Overview of the Community in Sambas Regency

Sambas Regency is the northernmost regency in West Kalimantan, bordering the Natuna Sea and Sarawak (Malaysia), and comprises 19 districts and 195 villages (Dinas Kesehatan Kabupaten Sambas, 2024). In the first half of 2026, the regency's population was recorded at 659,424 people (Dinas Kependudukan dan Pencatatan Sipil Kabupaten Sambas, 2026). This study was conducted in the eight districts where the informants live, namely Tebas, Teluk Keramat, Pemangkat, Jawai, Paloh, Semparuk, Sebawi, and Tekarang, which together are home to 367,466 people, or 55.7% of the regency's population. Tebas (83,431 people) and Teluk Keramat (78,155 people) are the most populous districts, while Paloh, which borders Sarawak directly, has the lowest density at 28 people per km² (Figure 1).

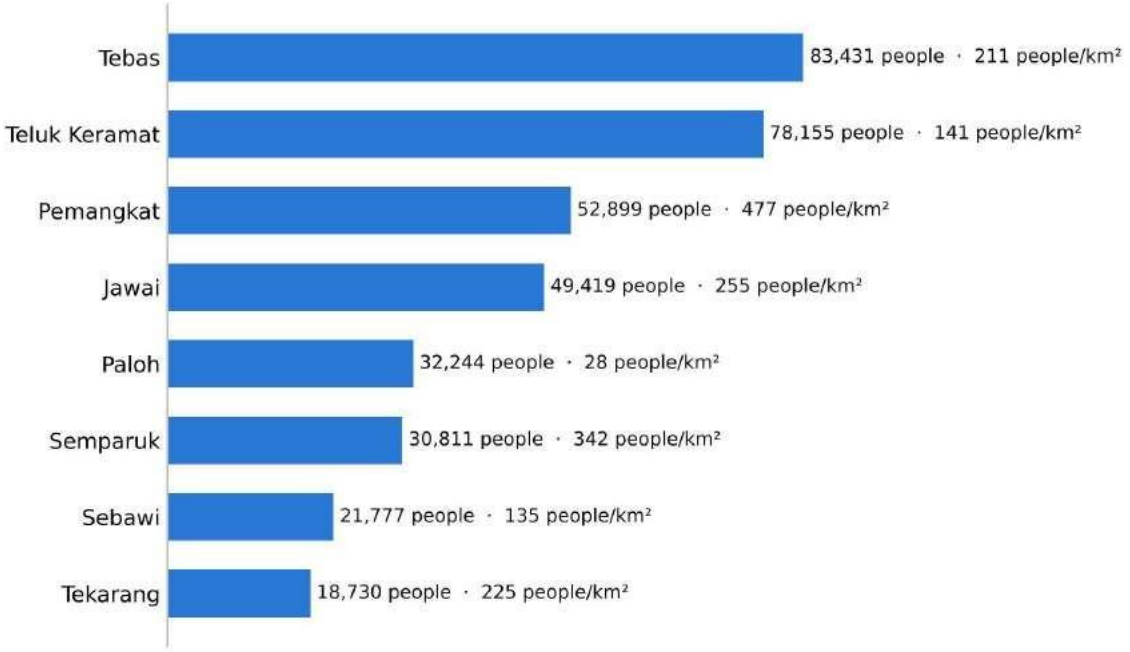


Figure 1. Population size and density in the eight study districts, Sambas Regency, first half of 2026
Source: Dinas Kependudukan dan Pencatatan Sipil Kabupaten Sambas (2026), processed by the authors.

In these eight districts, 90.5% of the population is Muslim and 6.4% is Buddhist. Teluk Keramat, Tekarang, and Jawai are almost entirely Muslim (97–98%), whereas Pemangkat and Tebas are more diverse, with Buddhists accounting for 17% and 9% of their populations, respectively (Figure 2).

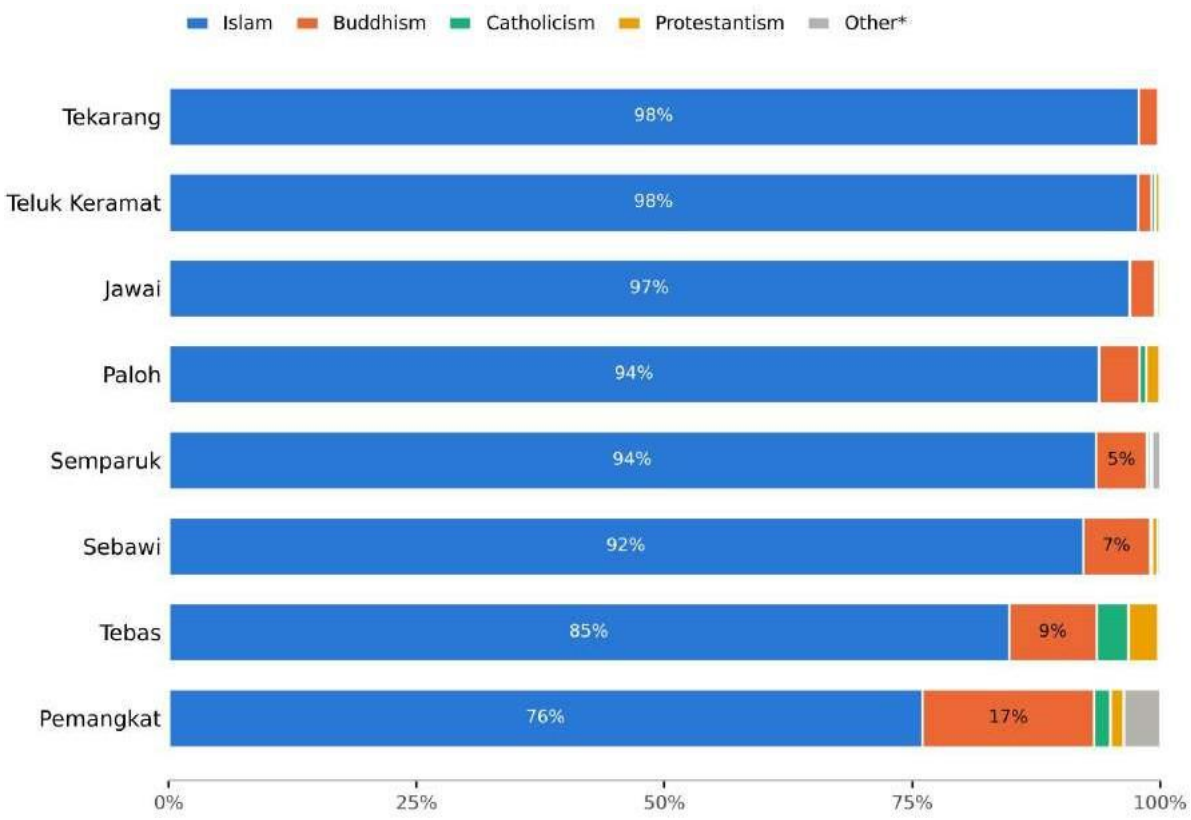


Figure 2. Population composition by religion in the eight study districts, Sambas Regency, first half of 2026
Source: Dinas Kependudukan dan Pencatatan Sipil Kabupaten Sambas (2026), processed by the authors. *Other: Confucianism, Hinduism, and indigenous belief systems. Educational attainment remains low. In the eight districts, 63.7% of the population has completed elementary school or less, and only 3.8% holds a diploma or university degree; these figures cover all age groups, including children who have not yet started school. The share of people with elementary education or less is highest in Jawai (69%) and Tekarang (68%) and lowest in Pemangkat (57%) (Figure 3). At the regency level, the mean years of schooling of the adult population in 2025 was only 7.0 years, below the provincial average of 8.07 years (Databoks, 2026).

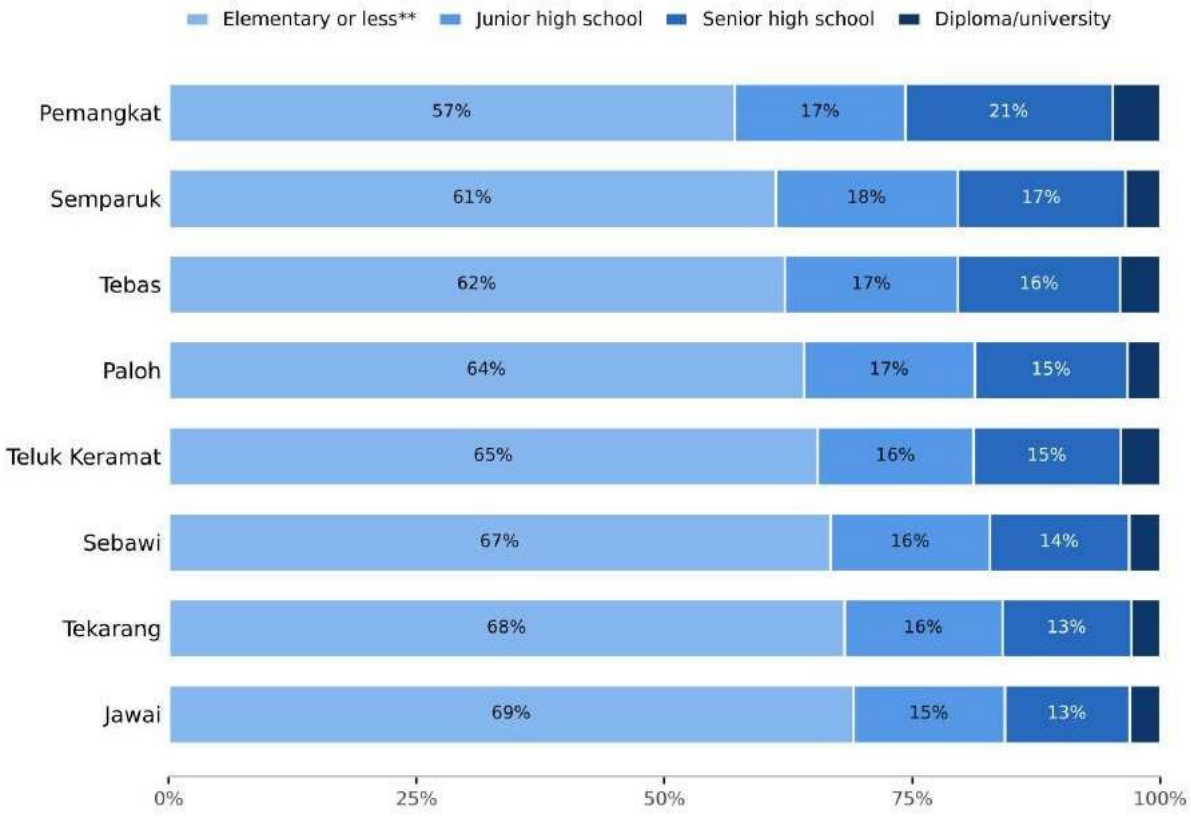


Figure 3. Population composition by educational attainment in the eight study districts, Sambas Regency, first half of 2026

Source: Dinas Kependudukan dan Pencatatan Sipil Kabupaten Sambas (2026), processed by the authors. **Elementary or less: no schooling/not yet in school, did not complete elementary school, and completed elementary school or equivalent. In terms of livelihoods, agriculture/livestock is the largest occupation (31.5%), followed by self-employment (17.5%). Tekarang (43%) and Teluk Keramat (42%) rely on agriculture, whereas Pemangkat is dominated by self-employment and non-agricultural work, with agriculture accounting for only 6%. Fishers are concentrated mainly in Pemangkat (1,409 people) and Jawai (529 people) (Figure 4).

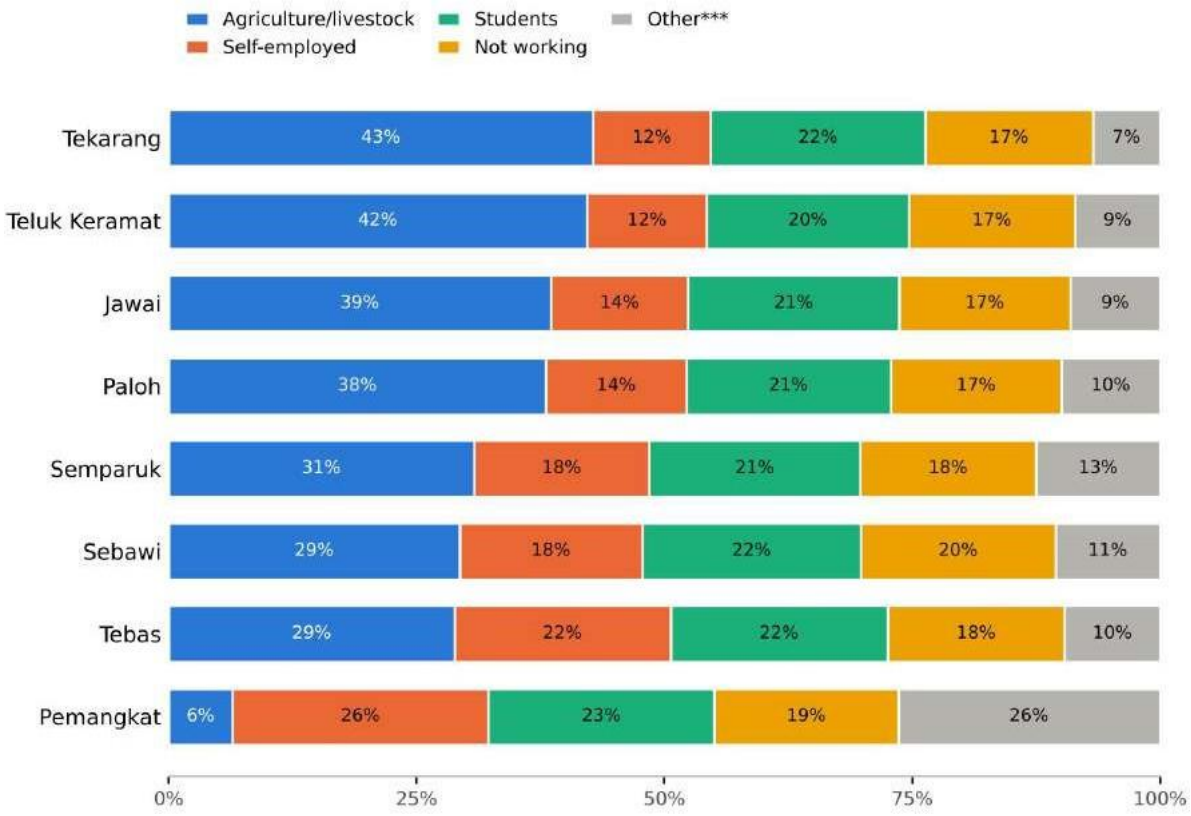


Figure 4. Population composition by occupation in the eight study districts, Sambas Regency, first half of 2026
Source: Dinas Kependudukan dan Pencatatan Sipil Kabupaten Sambas (2026), processed by the authors. ***Other: civil servants/state officials, teachers, fishers, homemakers, health workers, retirees, and other occupations. These conditions are directly related to health literacy. Health services remain limited, with 28 community health centers (puskesmas) and a hospital bed ratio below the WHO standard (Dinas Kesehatan Kabupaten Sambas, 2024), while stunting prevalence reached 30.5% in 2022, above the provincial rate of 27.8% (Kompas.com, 2023). Nationally, internet access among rural residents (70.14%) also lags behind that of urban residents (82.72%) (Badan Pusat Statistik, 2026), and some villages in Sambas have been recorded as lacking internet coverage (Antara Kalbar, 2020). Low educational attainment, the dominance of agricultural work, and unequal access explain why social media has become a practical source of health information and, at the same time, why people's ability to evaluate that information remains limited. Interviews with 50 informants from several districts of Sambas Regency, namely Tebas, Semparuk, Jawai, Tekarang, Sebawi, Teluk Keramat, Paloh, and Pemangkat, revealed that social media has become one of the means people use to obtain health information, expand their knowledge, understand disease symptoms, and raise their awareness of the importance of maintaining good health. Residents of the eight districts use Facebook, WhatsApp, Instagram, and TikTok. Social Media Use in Raising Health Literacy Awareness among Communities in West Kalimantan All 50 informants who were interviewed stated that social media helps them meet their health information needs and that such information is important in supporting people's lives. This finding shows that social media is used not only for communication and entertainment but also as a source of health knowledge and education. The following matrix clarifies the relationships between the research questions, categories, and main findings:

Table 1. Matrix of Social Media Use in Raising Health Literacy Awareness among Communities in West Kalimantan

| Research question | Main themes | Analytical categories | Empirical indicators |
|---|---|---|---|
| RQ1. How is social media used to raise health literacy awareness? | 1. Accessibility of health information | Social media as a source of information | Searching for information on diseases, symptoms, treatment, and disease prevention via Facebook, TikTok, Instagram, and WhatsApp. |

| | | | |
|---|---|---|---|
| | 2. Increased health knowledge | Understanding of health information | Increased knowledge of diseases, bodily health, diet, and health care. |
| | 3. Preventive awareness | Awareness of maintaining health | Greater attention to disease symptoms, healthy lifestyles, and disease prevention efforts. |
| | 4. Dissemination of health information | Communication and knowledge sharing | Sharing health information with family, friends, neighbors, and the wider social environment. |

Field data indicate that social media functions as a health communication channel that broadens people's access to health knowledge in West Kalimantan. The following is an academic synthesis of the four dimensions of these findings. People use platforms such as Facebook, TikTok, Instagram, and WhatsApp to seek information about diseases, symptoms, treatment, diet, and ways of keeping the body healthy. Facebook stands out among groups that use it in their daily activities, while TikTok and Instagram are used for their more engaging visual content. These findings show that social media has become a source of health learning that can be accessed without always having to interact directly with medical personnel. Social media use plays a role in increasing people's knowledge of various health issues they previously did not understand. Health literacy develops through the activities of searching for, receiving, and understanding information, in which people do not merely receive information passively but actively seek answers to their own and their families' health needs. The information obtained fosters preventive awareness, that is, an individual's ability to understand health risks and take preventive measures, such as being more careful in choosing food and recognizing disease symptoms early. Nevertheless, the findings more strongly reflect the increases in knowledge and awareness perceived by the informants rather than an objective measurement of changes in health behavior. Social media also helps extend the dissemination of health information through people's social relationships. Informants share information with family members, spouses, friends, neighbors, and even patients, in the case of those who work in the health sector. This sharing practice shows that health literacy is shaped not only through individual learning but also through the exchange of information and experiences within the social environment. Information initially obtained by one person can be passed on to others, potentially building collective health awareness. Social media use can therefore be understood as an important instrument for strengthening public health education, particularly when the information shared comes from competent and accountable sources. Factors Driving the Use of Social Media to Obtain Health Information The findings from 50 informants in eight districts of Sambas Regency, namely Tebas, Semparuk, Jawai, Tekarang, Sebawi, Teluk Keramat, Paloh, and Pemangkat, identified several factors that encourage people to use social media to obtain health information: ease of access, health information needs, the speed of obtaining information, health experiences or complaints, the need to protect family health, and the influence of the social environment. Social media use is also shaped by people's everyday habits of accessing digital platforms. People seek information not only when they are ill but also when they want to learn how to stay healthy, prevent disease, and improve their knowledge of their bodily condition.

**The factors that encourage people to use social media are as follows:**

(1) Ease of access and speed of obtaining information. Social media allows people to seek health knowledge through their mobile phones without having to visit a health facility. Informants use Facebook, TikTok, Instagram, WhatsApp, and Google, with search durations ranging from 10–15 minutes to several hours, depending on their needs and habits. This accessibility and efficiency make social media a practical alternative for obtaining initial explanations of disease symptoms, healthy lifestyles, and personal care. The second factor is the need for information arising from personal and family health experiences and problems. Information seeking is often driven by immediate and contextual needs: informants look for information on gastritis, diabetes, stomach health, medicines, herbal remedies, diet, and the benefits and risks of certain foods. People use social media to gain initial knowledge for understanding their health condition before deciding on further action. The greater a person's need for health information, the more likely they are to use social media as a search source. The third factor is the motivation to protect one's own and one's family's health. Information seeking is not always prompted by illness but also by the desire to stay healthy and prevent disease. Informants seek information to learn how to live healthily, manage their diet, understand the early symptoms of disease, and avoid risky habits. This need is tied to a sense of responsibility for the family, namely protecting the health of spouses, children, and parents. The information obtained serves as additional knowledge in daily life and is shared with family members. The motivation for using social media is thus not solely individually oriented but also reflects concern for the family's health.

The fourth factor is social media habits and trust in information sources. Most informants are accustomed to accessing social media throughout the day, so health information appearing in their feeds or content recommendations is easy to come across. The key to users' trust, which determines which information they access and use, lies in the competence of the source, such as information delivered by professionals, namely doctors, health workers, or people with expertise in health. Some informants check the source of information and compare it with other sources before trusting a piece of content. The use of social media for health information is determined not only by technological convenience but also by psychological and social factors: habits, needs, experiences, and trust in the credibility of those delivering the information.
Table 2. Matrix of Factors Driving the Use of Social Media to Obtain Health Information

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|---|---|---|---|
| RQ2. What factors drive the use of social media to obtain health information? | 1. Ease of digital access | Accessibility and efficiency | Ease of obtaining information quickly and flexibly through mobile phones. |
| | 2. Health information needs | Personal information needs | Searching for information on diseases, symptoms, medicines, treatment, and health solutions. |
| | 3. Family health motivation | Individual and family health orientation | The desire to protect one's own health and that of children, spouses, and other family members. |
| | 4. Digital habits and trust | Social media use and source credibility | A tendency to choose information from doctors and health workers on the basis of the source's expertise or competence |

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**Barriers to Seeking Health Information**

Interviews with 50 informants revealed that using social media to seek health information still faces a number of barriers. These barriers relate mainly to doubts about the accuracy of information, the prevalence of fake news (hoaxes), limited internet networks, limited data quotas, difficulty finding trustworthy information sources, and a lack of understanding of health information delivered digitally. These findings show that easy access to social media is not always accompanied by people's ability to obtain and evaluate health information appropriately. In other words, people can find a great deal of health information, but not all of it is necessarily accurate, easy to understand, or applicable.
Table 3. Matrix of Barriers to Seeking Health Information

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|---|---|---|---|
| RQ3. What are the barriers to seeking health information? | 1. Inaccurate information | Credibility and validity of information | Concerns about hoaxes, false information, unclear sources, and misleading health content. |
| | 2. Limited digital infrastructure | Network and technology access | Signal disruptions, limited internet networks, data quotas, and difficulty accessing information websites. |
| | 3. Difficulty evaluating information | Digital and health literacy | Uncertainty in determining the accuracy of information and difficulty |

| | | | |
|---|---|---|---|
| | | | distinguishing trustworthy from untrustworthy sources. |
| | 4. Limited motivation and education | Accessibility of health education | Low motivation to seek information and a need for simple, easy-to-understand educational content. |

The first and most prominent barrier is the prevalence of hoaxes and low trust in digital health content. People find it difficult to distinguish valid from misleading information because much of the circulating content lacks a clear source. These doubts arise especially when seeking information about medicines, treatments, or remedies for particular diseases. Issues of credibility and validity of information are the main barriers to improving digital health literacy. The second barrier relates to limited digital infrastructure, particularly internet networks, signal coverage, and the availability of data quotas. This constraint is felt especially by informants in villages where network access remains unstable. The internet access gap creates unequal opportunities for people to obtain health education through social media. The third barrier is the difficulty of assessing credibility, understanding content, and identifying information that meets one's needs. The ability to access social media does not necessarily go hand in hand with the ability to evaluate information. People need the skills to check the identity of the messenger, recognize the competence of health workers, and compare information from multiple sources. Digital literacy and health literacy are interrelated competencies; without critical evaluation, people risk accepting and spreading false information. The fourth barrier relates to limited motivation to seek information and the uneven reach of health education. The mere presence of social media is not enough to ensure that everyone actively improves their knowledge. Information needs to be delivered in an engaging and simple way, using language that is easy to understand for different age groups and educational levels. Informants proposed educational videos, animated content, face-to-face outreach, and the active involvement of the Sambas Regency Health Office to reach rural areas regularly.

**Discussion**

Social Media Use in Raising Health Literacy Awareness The findings of this study show that social media has shifted from a space for entertainment and conversation to an everyday health communication channel for communities in West Kalimantan. Overall, the informants regarded health information as important and felt that social media helped them. This pattern is consistent with the systematic review by Chen and Wang (2021), which mapped ten forms of social media use for health purposes by health institutions, researchers and practitioners, and the public. Theoretically, these findings reinforce the active audience assumption of the uses and gratifications tradition: informants are not merely exposed to messages but deliberately seek answers to their own and their families' health needs. What is distinctive in this context is the function of social media as a first point of contact, a place where people ask questions before, or without, seeing a health professional. Platform use differs: Facebook is embedded in daily routines, while TikTok and Instagram attract users through their visual strength. Song et al. (2021) showed that the search, recommendation, and live-streaming features of short-video apps shape user experiences of immersion, social presence, and perceived credibility, which in turn encourage people to keep using them as sources of health information. In other words, people do not choose platforms at random. They choose the presentation format that is easiest to digest, so that a platform's technological characteristics help determine which health information reaches them and how it is understood. Message format thus becomes part of the literacy process itself rather than mere packaging. The increases in knowledge and preventive awareness reported by informants should be interpreted with caution. Informants said they had become more careful in choosing food and more alert to early disease symptoms, but the data in this study capture perceptions rather than objectively measured behavioral change. This caution matters because self-assessments are often higher than actual ability. Z. Wang et al. (2022) found that rural patients with chronic diseases rated their health information literacy as fairly good, yet in practical tests they struggled to find high-quality information. The SPHERE (Social media and Public Health Epidemic and REsponse) model of Schillinger et al. (2020) likewise stresses that social media is double-edged: it can serve as a tool for disease control and health promotion but also as a pathway for spreading harmful messages. These findings are therefore better understood as growing awareness, an early stage of health literacy, rather than as evidence of behavioral change. Another dimension of social media use is the sharing of information with family, friends, neighbors, and even patients. This aspect shows that communication does not flow directly from the media to the community; rather, it is first passed on to those closest to the recipient and then to others with whom they have close personal ties. In media use theory, these individuals are described as active audiences (uses and gratifications). Active audiences serve as information relays and as opinion leaders for others, a role played, for example, by medical personnel in the health field. Saw et al. (2021) found that messages from health opinion leaders on social media can influence their followers, who regard them as mentors, family

members, or friends. A review of 58 studies by Le et al. (2023) adds that sharing health information online can strengthen health literacy, community awareness, and social support. However, the same channels can also pass on false information, and Malhotra (2020) cautioned that corrections on messaging apps such as WhatsApp are strongly shaped by relationships and culture. The collective benefits of sharing therefore depend on the competence of those who act as intermediaries.
Factors Driving the Use of Social Media to Obtain Health Information The four factors identified are most fully explained by the uses and gratifications theory, which views media use as a conscious choice to meet particular needs. The first factor, ease of access and speed, corresponds to the motive of technological convenience in this theory. Informants can seek initial explanations of symptoms or personal care simply through their mobile phones, with search times ranging from 10–15 minutes to several hours. Zhang et al. (2021), who applied this theory to older WeChat users, identified six motives for engaging with health information, including information needs, social support, and technological convenience. A meta-analysis of 44 articles by X. Wang et al. (2021) supports this view: instrumental factors are more decisive for online health information seeking than psychological factors. In areas where health facilities are not always nearby, this convenience is even more valuable because social media bridges the gap between the onset of a complaint and the opportunity to consult a professional. The second factor, information needs arising from personal experiences and complaints, reflects the cognitive motive in uses and gratifications. Informants sought information about gastritis, diabetes, medicines, herbal remedies, and diet because they were facing these problems. Zhang et al. (2021) found that information needs are among the strongest predictors of user engagement with health content, and Chen and Wang (2021) identified health information seeking as one form of public social media use. The finding that the greater a person's need, the more often they search underscores the contextual nature of this behavior. Health information seeking is not a general, stand-alone habit but a response to perceived uncertainty about one's bodily condition. Health literacy thus grows out of real problems rather than an abstract interest in health. The third factor extends the theory from the individual to the family. Many informants sought information not because they were ill but to protect the health of their spouses, children, and parents. Within the uses and gratifications framework, this motive falls under social gratifications: media are used to nurture relationships and provide support. Zhang et al. (2021) identified social support as an important predictor, while Le et al. (2023) used motivation as the main framework for understanding health information sharing behavior. Malhotra (2020) added that information exchange on messaging apps takes place mainly among close contacts. This finding offers a modest correction to a theory that usually focuses on individual gratifications. In communities with strong family ties, information seeking is a practice of care, and the more appropriate unit of analysis is the family rather than the individual user. The fourth factor combines habit and trust, and here source credibility theory and the elaboration likelihood model (ELM) are more helpful. Because informants access social media throughout the day, health information often reaches them through their feeds and content recommendations, making quick judgments about the messenger decisive. Jenkins et al. (2020) explained that credibility judgments rest on the expertise and trustworthiness of the source, and that markers of expertise function as heuristics. Informants' tendency to place greater trust in doctors and health workers is an example of such peripheral-route processing. Sui and Zhang (2021), using the ELM, found that information quality and source credibility both increase trust in information, and that source credibility is shaped by expertise and authority. The informants who compared several sources demonstrated central-route processing. Overall, the use of social media for health is jointly shaped by needs, family relationships, media routines, and trust in the messenger.

**Barriers to Seeking Health Information**

The most prominent barrier is doubt about the accuracy of information and the prevalence of hoaxes, particularly regarding medicines and treatments. The informants' concerns are well founded. A systematic review of 69 studies by Suarez-Lledo and Alvarez-Galvez (2021) found that health misinformation is widespread across platforms, with the proportion of misleading posts reaching 87% in some studies. In Indonesia, Effendi (2023) noted that the Ministry of Communication and Informatics identified 425 hoax issues in the first quarter of 2023. Vraga and Bode (2020) defined misinformation as information that contradicts the best available evidence and expert consensus. From the perspective of source credibility theory, the informants' problem is not a lack of information but the absence of cues for judging the messenger: content circulates without clear identities or sources. Without access to evidence and experts, doubt is a reasonable, even healthy, response. The second barrier, limited signal coverage, networks, and data quotas, is best explained by digital divide theory. Van Deursen and van Dijk (2019) demonstrated that even in countries with very high internet penetration, differences in material access, such as devices and ongoing subscription costs, continue to affect skills, types of use, and the benefits derived from the internet. For informants in villages, data quotas and signal coverage are real costs that limit how often and how deeply they can search for information. The consequences are structural. Video content, which is the most popular and easiest to understand, requires the most data, so the groups most in need of health education risk becoming the groups that find it hardest to reach. This barrier cannot be resolved by individuals because its roots lie in infrastructure. The third barrier concerns the ability to evaluate rather than the ability to access, and can be read through the elaboration likelihood model (ELM). Evaluating message content in depth, the central route, requires prior knowledge and skills that not everyone has, so many users rely on surface cues. Z. Wang et al. (2022) found a similar pattern: most rural respondents were able to find health websites but tended to choose answers based on

other people's experiences rather than official sources. Afful-Dadzie et al. (2023) showed that commonly used instruments for assessing the quality of health information were designed before the social media era. Jones-Jang et al. (2021) found that, among various types of literacy, information literacy is the one that actually helps people identify fake news, and Rachmawati and Agustine (2021) made a similar point regarding health hoaxes in Indonesia. Digital literacy and health literacy should therefore be viewed as a single set of competencies, because without critical evaluation a person may end up spreading false information to those closest to them. The fourth barrier, low motivation and the uneven reach of health education, is consistent with the knowledge gap hypothesis: an increasing flow of information is not automatically enjoyed equally by all groups. Melki (2023), who tested this hypothesis during the pandemic, found that health knowledge was positively associated with education, media literacy, and social media exposure. Z. Wang et al. (2022) also reported that respondents acknowledged the importance of health information but did not proactively seek it. The informants' proposals of educational videos, animations, simple language, and face-to-face outreach by the Sambas Regency Health Office are essentially efforts to narrow this gap. Swire-Thompson and Lazer (2020) recommended that responses to health misinformation rely not only on individual capabilities but also on improving the information environment. The practical implications are clear: regional health agencies need to be actively present on the platforms residents use, with concise and data-efficient content; involve local health workers as opinion leaders; and combine these efforts with face-to-face health education in villages with limited network coverage.

**Conclusion**

This study concludes that social media has become an everyday health communication channel for communities in West Kalimantan, but its benefits for health literacy remain at the awareness stage and depend heavily on the quality of information and on people's ability to evaluate it. This conclusion is based on interviews with 50 informants and answers the three research questions as follows: In general, residents of several districts in Sambas Regency use social media to raise their health literacy awareness. The platforms they use are Facebook, WhatsApp, Instagram, and TikTok. People regard health information as important and use social media to seek information about diseases, symptoms, treatment, and prevention; 49 of the 50 informants found it helpful, and all of them considered health information important. This means that social media improves health literacy through four pathways: broadening access to information, increasing knowledge, fostering preventive awareness, and disseminating information to family members and the social environment. As active audiences, informants not only receive messages but also seek and pass them on, and informants working in the health sector act as opinion leaders. However, the improvements identified are the knowledge and awareness perceived by informants, not objectively measured changes in health behavior. Factors driving the use of social media to obtain health information. There are four driving factors: (a) easy and fast access through mobile phones; (b) information needs arising from personal health experiences and complaints; (c) the motivation to protect one's own and one's family's health; and (d) social media habits combined with trust in sources regarded as experts, especially doctors and health workers.

**Barriers to seeking health information**.

There are four main barriers: (a) the prevalence of hoaxes and unclear sources, which create doubts about the accuracy of information; (b) limited signal coverage, networks, and data quotas, especially in villages; (c) difficulty in assessing credibility and understanding the content of information; and (d) low motivation and the uneven reach of health education. These barriers underscore that ease of access does not automatically produce health literacy. Gaps in infrastructure and in the ability to evaluate information mean that the benefits of social media are not enjoyed equally. Based on these three answers, strengthening health literacy through social media requires three concurrent steps: the active presence of health institutions, particularly the Sambas Regency Health Office, with simple, engaging, and data-efficient content; the involvement of local health workers as trusted sources in their communities; and digital literacy education combined with face-to-face outreach. This preliminary study also recommends measuring changes in health behavior. Because the findings are based on informants' perceptions, future research should objectively measure changes in health behavior and test these findings with a larger sample.

**References**

Abbasi, A. Z., Ayaz, N., Kanwal, S., Albashrawi, M., & Khair, N. (2023). TikTok app usage behavior: The role of hedonic consumption experiences. Data Technologies and Applications, 57(3), 344–365. https://doi.org/10.1108/DTA-03-2022-0107

Afful-Dadzie, E., Afful-Dadzie, A., & Egala, S. B. (2023). Social media in health communication: A literature review of information quality. Health Information Management Journal, 52(1), 3–17. https://doi.org/10.1177/1833358321992683

Agustin, D. I., Fajarwati, N. K., Zulfikar, M., Fitrianti, R., & Suryasuciramdhan, A. (2025). Pengaruh penggunaan akun Instagram @pelangibundamedika terhadap pemenuhan informasi pasien Klinik Pelangi Bunda Medika [The effect of using the Instagram account @pelangibundamedika on fulfilling the information needs of Pelangi

Bunda Medika Clinic patients]. JISPENDIORA: Jurnal Ilmu Sosial, Pendidikan dan Humaniora, 4(3), 337–360. https://doi.org/10.56910/jispendiora.v4i3.3206

Antara Kalbar. (2020, March 6). Sensus penduduk online terkendala jaringan internet [Online population census hampered by internet network constraints]. https://kalbar.antaranews.com/berita/405894/sensus-penduduk-online-terkendala-jaringan-internet

Apriyana, L., Pane, I. Z., Harahap, H., & Vardiansyah, D. (2023). Pengaruh intensitas penggunaan TikTok akun @clahayes sebagai sarana edukasi terhadap pemenuhan kebutuhan informasi kesehatan diet para followers [The effect of the intensity of using the TikTok account @clahayes as an educational medium on fulfilling followers' diet-related health information needs]. Journal of Scientific Communication, 5(2), 122–135.

Asosiasi Penyelenggara Jasa Internet Indonesia. (2024). Laporan survei penetrasi internet APJII 2023–2024 [APJII internet penetration survey report 2023–2024].

Badan Pusat Statistik. (2023). Statistik Indonesia 2023 [Statistical yearbook of Indonesia 2023].

Badan Pusat Statistik. (2026). Statistik telekomunikasi Indonesia 2025 [Telecommunication statistics in Indonesia 2025]. Badan Pusat Statistik.

Braun, V., & Clarke, V. (2022). Thematic analysis: A practical guide. SAGE Publications.

Byrne, D. (2022). A worked example of Braun and Clarke's approach to reflexive thematic analysis. Quality & Quantity, 56(3), 1391–1412. https://doi.org/10.1007/s11135-021-01182-y

Chen, J., & Wang, Y. (2021). Social media use for health purposes: Systematic review. Journal of Medical Internet Research, 23(5), e17917. https://doi.org/10.2196/17917

Creswell, J. W., & Poth, C. N. (2018). Qualitative inquiry and research design: Choosing among five approaches (4th ed.). SAGE Publications.

Databoks. (2026, November 15). Rata-rata lama sekolah di Kabupaten Sambas masih di bawah rata-rata nasional [Mean years of schooling in Sambas Regency remain below the national average]. Katadata Insight Center. https://databoks.katadata.co.id/layanan-konsumen-kesehatan/statistik/ce7f8bc8534324a/ratarata-lama-sekolah-di-kabupaten-sambas-masih-di-bawah-ratarat nasional

DeJonckheere, M., & Vaughn, L. M. (2019). Semistructured interviewing in primary care research: A balance of relationship and rigour. Family Medicine and Community Health, 7(2), e000057. https://doi.org/10.1136/fmch-2018-000057

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2018). The SAGE handbook of qualitative research (5th ed.). SAGE Publications.

Dinas Kependudukan dan Pencatatan Sipil Kabupaten Sambas. (2026). Data agregat kependudukan Kabupaten Sambas semester I tahun 2026 [Aggregate population data of Sambas Regency, first semester of 2026]. Dinas Kependudukan dan Pencatatan Sipil Kabupaten Sambas. https://disdukcapil.sambas.go.id

Dinas Kesehatan Kabupaten Sambas. (2024). Profil kesehatan Kabupaten Sambas tahun 2023 [Health profile of Sambas Regency 2023]. Dinas Kesehatan Kabupaten Sambas. https://opendata.sambas.go.id/uploads/repositori/REPOSITORI_20240606102321a2 8f6cc124115ce300e486b62e7f9539.pdf

Effendi, E. (2023). User behaviour and hoax information on social media case of Indonesia. Jurnal Studi Komunikasi, 7(3). https://doi.org/10.25139/jsk.v7i3.7402

Falgoust, G., Winterlind, E., Moon, P., Parker, A., Zinzow, H., & Chalil Madathil, K. (2022). Applying the uses and gratifications theory to identify motivational factors behind young adult's participation in viral social media challenges on TikTok. Human Factors in Healthcare, 2, 100014.

Gu, L., Gao, X., & Li, Y. (2022). What drives me to use TikTok: A latent profile analysis of users' motives. Frontiers in Psychology, 13, 992824. https://doi.org/10.3389/fpsyg.2022.992824

Harrison, H., Birks, M., Franklin, R., & Mills, J. (2017). Case study research: Foundations and methodological orientations. Forum Qualitative Sozialforschung / Forum: Qualitative Social Research, 18(1), Art. 19. https://doi.org/10.17169/fqs-18.1.2655

Herna. (2022). TikTok social media usage motives: Uses and gratification theory analysis. Moestopo International Review on Social, Humanities, and Sciences, 2(2).

Jackson, K., & Bazeley, P. (2019). Qualitative data analysis with NVivo (3rd ed.). SAGE Publications.

Jenkins, E. L., Ilicic, J., Barklamb, A. M., & McCaffrey, T. A. (2020). Assessing the credibility and authenticity of social media content for applications in health communication: Scoping review. Journal of Medical Internet Research, 22(7), e17296. https://doi.org/10.2196/17296

Jones-Jang, S. M., Mortensen, T., & Liu, J. (2021). Does media literacy help identification of fake news? Information literacy helps, but other literacies don't. American Behavioral Scientist, 65(2), 371–388. https://doi.org/10.1177/0002764219869406

Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. Public Opinion Quarterly, 37(4), 509–523. https://doi.org/10.1086/268109

Katz, E., Gurevitch, M., & Haas, H. (1973). On the use of the mass media for important things. American Sociological Review, 38(2), 164–181. https://doi.org/10.2307/2094393

Kementerian Kesehatan Republik Indonesia. (2022). Laporan kesehatan nasional 2022 [National health report 2022].

Kirkpatrick, C., & Lawrie, L. L. (2024). TikTok as a source of health information and misinformation for young women in the United States: Survey study. JMIR Infodemiology, 4, e54663. https://doi.org/10.2196/54663

Kompas.com. (2023, September 3). Pola pengasuhan hingga makanan instan picu tingginya stunting di Sambas [Parenting patterns and instant food drive high stunting rates in Sambas]. https://lestari.kompas.com/read/2023/09/03/090000886/pola-pengasuhan-hingga-makanan-instan-picu-tingginya-stunting-di-sambas

Krippendorff, K. (2019). Content analysis: An introduction to its methodology (4th ed.). SAGE Publications.

Le, L. H., Hoang, P. A., & Pham, H. C. (2023). Sharing health information across online platforms: A systematic review. Health Communication, 38(8), 1550–1562. https://doi.org/10.1080/10410236.2021.2019920

Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. SAGE Publications.

Malhotra, P. (2020). A relationship-centered and culturally informed approach to studying misinformation on COVID-19. Social Media + Society, 6(3), 2056305120948224. https://doi.org/10.1177/2056305120948224

Malterud, K., Siersma, V. D., & Guassora, A. D. (2016). Sample size in qualitative interview studies: Guided by information power. Qualitative Health Research, 26(13), 1753–1760. https://doi.org/10.1177/1049732315617444

Melki, J. (2023). Knowledge gap hypothesis and pandemics: Covid-19 knowledge, communication inequality, and media literacy in Lebanon. Media and Communication, 11(1). https://doi.org/10.17645/mac.v11i1.5960

Merriam, S. B., & Tisdell, E. J. (2016). Qualitative research: A guide to design and implementation (4th ed.). Jossey-Bass.

Morgan, H. (2022). Conducting a qualitative document analysis. The Qualitative Report, 27(1), 64–77. https://doi.org/10.46743/2160-3715/2022.5044

Nikita, S. N. (2026). Exploring social media use through uses and gratifications theory: A systematic literature review. Jurnal Pekommas, 11(1), 19–31. https://doi.org/10.56873/jpkm.v11i1.6084

Niu, Z., Willoughby, J., & Zhou, R. (2021). Associations of health literacy, social media use, and self-efficacy with health information–seeking intentions among social media users in China: Cross-sectional survey. Journal of Medical Internet Research, 23(2), e19134. https://doi.org/10.2196/19134

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. Administration and Policy in Mental Health and Mental Health Services Research, 42(5), 533–544. https://doi.org/10.1007/s10488-013-0528-y

Priya, A. (2021). Case study methodology of qualitative research: Key attributes and navigating the conundrums in its application. Sociological Bulletin, 70(1), 94–110. https://doi.org/10.1177/0038022920970318

Rachmawati, T. S., & Agustine, M. (2021). Keterampilan literasi informasi sebagai upaya pencegahan hoaks mengenai informasi kesehatan di media sosial [Information literacy skills as an effort to prevent health information hoaxes on social media]. Jurnal Kajian Informasi & Perpustakaan, 9(1), 99–114. https://doi.org/10.24198/jkip.v9i1.28650

Ruggiero, T. E. (2000). Uses and gratifications theory in the 21st century. Mass Communication and Society, 3(1), 3–37. https://doi.org/10.1207/S15327825MCS0301_02

Saw, T. C., Mohamad, E., & Mohamed Salleh, S. (2021). Acceptance of health messages conveyed by parasocial opinion leaders on Twitter among followers. Jurnal Komunikasi: Malaysian Journal of Communication, 37(4), 104–121. https://doi.org/10.17576/JKMJC-2021-3704-07

Schillinger, D., Chittamuru, D., & Ramírez, A. S. (2020). From "infodemics" to health promotion: A novel framework for the role of social media in public health. American Journal of Public Health, 110(9), 1393–1396. https://doi.org/10.2105/AJPH.2020.305746

Septiana, R., Rachim, W. R., Nurhajati, L., & Siregar, Y. M. H. (2024). Implementation of uses and gratification theory on Instagram usage patterns as an alternative media for Generation Z. Journal Communication Spectrum: Capturing New Perspectives in Communication, 14(2), 112–124. https://doi.org/10.36782/jcs.v14i2.2531

Song, S., Zhao, Y. C., Yao, X., Ba, Z., & Zhu, Q. (2021). Short video apps as a health information source: An investigation of affordances, user experience and users' intention to continue the use of TikTok. Internet Research, 31(6), 2120–2142. https://doi.org/10.1108/INTR-10-2020-0593

Stake, R. E. (1995). The art of case study research. SAGE Publications.

Stifjell, K., Sandanger, T. M., & Wien, C. (2025). Exploring online health information–seeking behavior among young adults: Scoping review. Journal of Medical Internet Research, 27, e70379. https://doi.org/10.2196/70379

Suarez-Lledo, V., & Alvarez-Galvez, J. (2021). Prevalence of health misinformation on social media: Systematic review. Journal of Medical Internet Research, 23(1), e17187. https://doi.org/10.2196/17187

Sui, Y., & Zhang, B. (2021). Determinants of the perceived credibility of rebuttals concerning health misinformation. International Journal of Environmental Research and Public Health, 18(3), 1345. https://doi.org/10.3390/ijerph18031345

Swire-Thompson, B., & Lazer, D. (2020). Public health and online misinformation: Challenges and recommendations. Annual Review of Public Health, 41, 433–451. https://doi.org/10.1146/annurev-publhealth-040119-094127

van Deursen, A. J. A. M., & van Dijk, J. A. G. M. (2019). The first-level digital divide shifts from inequalities in physical access to inequalities in material access. New Media & Society, 21(2), 354–375. https://doi.org/10.1177/1461444818797082

Vraga, E. K., & Bode, L. (2020). Defining misinformation and understanding its bounded nature: Using expertise and evidence for describing misinformation. Political Communication, 37(1), 136–144. https://doi.org/10.1080/10584609.2020.1716500

Wang, X., Shi, J., & Kong, H. (2021). Online health information seeking: A review and meta-analysis. Health Communication, 36(10), 1163–1175. https://doi.org/10.1080/10410236.2020.1748829

Wang, Z., Fan, Y., Lv, H., Deng, S., Xie, H., Zhang, L., Luo, A., & Wang, F. (2022). The gap between self-rated health information literacy and internet health information-seeking ability for patients with chronic diseases in rural communities: Cross-sectional study. Journal of Medical Internet Research, 24(1), e26308. https://doi.org/10.2196/26308

We Are Social & Hootsuite. (2023). Digital 2023: Indonesia.

World Health Organization. (2013). Health literacy: The solid facts. WHO Regional Office for Europe.

World Health Organization. (2020). Research ethics in health: A global perspective. World Health Organization. (2021). Misinformation on health: A global challenge.

Yin, R. K. (2018). Case study research and applications: Design and methods (6th ed.). SAGE Publications.

Zhang, X., Xu, X., & Cheng, J. (2021). WeChatting for health: What motivates older adult engagement with health information. Healthcare, 9(6), 751. https://doi.org/10.3390/healthcare9060751

Zukhrufa Aura Madani, et al. (2025). Penggunaan media sosial dalam meningkatkan literasi kesehatan pola hidup sehat di Pondok Pesantren Hilmatul Madani [The use of social media in improving healthy lifestyle health literacy at Hilmatul Madani Islamic Boarding School]. Jurnal Kesehatan Tambusai, 6(1).