

Reproductive Health Information-Seeking Behavior on Adolescents in social media

Wahyu Utamidewi¹, Yanti Tayo, Siti Nursanti, Pamungkas Satya Putra

{wahyu.utamidewi@fisip.unsika.ac.id¹}

Universitas Singaperbangsa Karawang, Karawang, Indonesia

Abstract. One intervention to reduce maternal and infant mortality is increasing adolescent knowledge about reproductive health. This study aims to determine adolescent behavior in seeking reproductive health information. An online survey was conducted on 188 adolescent internet users from all over Indonesia. The results showed that 95% of the respondents knew reproductive health information, and the school was the first place the information was obtained. Respondents who stated that they needed a particular room and specific hours at school to search for information and discuss reproductive health problems were 62 %. The study also revealed that teachers should be the most comfortable place to discuss reproductive health issues by 44%.

Keywords: Reproductive Health, health communications, information-seeking behavior, adolescents.

1 Introduction

Seventy-four million women experience unwanted pregnancies, resulting in 25 million unsafe abortions and 47,000 maternal fatalities [1]. Unintended pregnancy is directly associated with insufficient prenatal care, low birth weight, child maltreatment and neglect, behavioural issues in children, heightened risk of exposure to tobacco or illicit substances, inadequate consumption of folic acid supplements, and depression occurring during and post-pregnancy [2]. Factors contributing to unwanted pregnancies encompass having reached desired family size, lack of readiness for parenthood at the moment, insufficient financial means to maintain an additional child, and being unmarried. Numerous recent research studies have linked unplanned pregnancy to contraceptive abuse and lack of accessibility [2]. In 2012, there were roughly 213 million pregnancies globally, with 40% being unplanned. From 1995 to 2008, there was no notable reduction in the incidence of unplanned pregnancy (43% and 42%, respectively)[3]. Emergency contraception (EC) can substantially decrease the incidence of unplanned pregnancies and abortions. We have thoroughly documented its effectiveness and safety.

The primary challenges in addressing unwanted pregnancy are women's insufficient awareness regarding pregnancy and contraception, as well as their limited access to assistance [4]. In particular, women in impoverished nations lack direct access to healthcare services. They encounter challenges in decision-making and execution due to their insufficient social and economic autonomy [5]. The absence of awareness and access to assistance for women may result in their pursuit of an abortion, potentially causing severe psychological and obstetric difficulties thereafter. Access to reproductive health information is crucial for women from a

young age, particularly in poor countries where such knowledge is often limited. In nations like Indonesia, discussions about reproductive health and sexuality are sometimes considered taboo [6]. Therefore, it is crucial to explore the specific health information needs related to various health topics, especially studies that focus on adolescents' reproductive health information-seeking behavior [7].

In 2021, the adolescent population in Indonesia will constitute 1153%; the capacity of youth to enhance a nation's production and prosperity is contingent upon their ability to mitigate health risks and chronic diseases, particularly those related to sexual and reproductive health [8]. Numerous recent studies have demonstrated the efficacy of various interventions for teenage reproductive health across diverse contexts. Wang and colleagues [9] evaluated a school-based educational initiative, 'Safer Choices,' aimed at preventing HIV, other STDs, and pregnancy among high school students. Safer Choices was a two-year, theory-driven, multifaceted initiative involving ten schools in Northern California and 10 in Southeast Texas. Pinkerton and colleagues [10] assessed a randomized controlled trial of an intense one-day sexual risk-reduction intervention for African-American males. The intervention aimed to enhance awareness of HIV/AIDS, especially proper condom utilization, and to mitigate high-risk sexual behaviors. Ateka and colleagues [11] conducted an investigation into the HIV/STD prevention program in Houston, specifically focusing on the knowledge and sexual behaviors of public high school students regarding HIV/STD. Program participants acquired knowledge regarding HIV/AIDS, various sexually transmitted infections, and safer sexual practices, including condom utilization. Rosenthal and associates [12] conducted an extensive community-oriented initiative that aimed to prevent unplanned pregnancies and foster healthy youth development among middle and high school students.

Important health information is conveyed to teenagers from an early age so that every teenager can be introspective and responsible for every action he does. The ease of information and communication technology makes it easier for humans to access all the information they need, regardless of whether the information is credible. A study in the United States showed that most people search for health information that is disproportionate even though the information is needed to make health decisions [3]; most people seek health information through the internet [13], Wikipedia [14], or explore through sites found because what they are looking for is not specific [15]. The rise of advances in information technology has made people flock to various ways to obtain health information through the internet or other media that can provide accurate health information. A study in the United States showed that the control of adolescent behavior highly depends on the information it receives as part of the information-seeking period needed by adolescents. To produce balanced behavior, the information and expectations desired by adolescents affect their behavior in making decisions [16].

Adolescence is an important phase that not only affects their lives but also affects the management of health by the state. The mortality rate for mothers and newborns will continue to increase if adolescents do not have the knowledge to reproduce in adulthood. This study aims to see the behavior of seeking information on reproductive health in adolescent girls in Indonesia. This research will be conducted using a survey method conducted online to all teenagers in Indonesia.

2. Methods

A survey was carried out on adolescents in Indonesia aged 17 to 19 years which, according to BPS, occupy 11,53% of the Indonesian population. There is no exact number of adolescents in Indonesia, so Fraenkel stated that if the exact population studied is not found, the researcher must select at least 100 respondents for quantitative descriptive research [17]. This study uses a formula for unknown or approachable populations with a confidence level of 0.95 percent, an error margin of 0.05, and a standard deviation of 0.5, using a recipe for an unknown or larger population [18].

3. Results and Discussion

In this study, the criteria for respondents eligible to fill out questionnaires distributed through social media were Indonesian citizens aged between 10 to 24 years and active on social media. This survey was participated by 188 respondents

Table 1. The survey results of reproductive health information-seeking behavior on adolescents in Indonesia

Do respondents know reproductive health information?		
	N	%
Yes	141	95
No	4	2
Uncertain	43	3
The first source of respondents' knowledge about reproductive health.		
Internet	79	42
School	93	49
Friends	3	2
Parents	13	7
With whom do respondents feel comfortable discussing reproductive health issues?		
Parent	58	29
Teachers	20	10
Friends	107	54
Healthcare Professional	3	7
A place where respondents feel safe and comfortable seeking reproductive health information.		
Internet	149	79
Library	2	1
Healthcare Professional	30	16
Family	7	4
Who should be most responsible for providing education related to reproductive health?		
Teachers	33	18
Parent	83	44
Healthcare Professional	72	38
Is reproductive health education necessary to be taught in schools?		
Necessary	116	62
Unnecessary	4	2
Uncertain	68	36
Should the government provide a safe and comfortable library to find reproductive health information?		
Necessary	117	62
Unnecessary	60	32

The resulting survey of this study can contribute to planning communication strategies for promoting and safeguarding adolescents' sexual and reproductive health in Indonesia. The communication planners will more easily determine what appropriate media will be used to disseminate information and design the message form [19]. Communicating can be defined as a process of sharing information and building a civilization. Furthermore, communicating can be interpreted as an activity of telling stories, and the most important is that humans will only listen to what they want to be heard [20]. The level of adolescent knowledge about reproductive health and its processes is one of the main components that support the successful pregnancy and childbirth process and avoid unintended pregnancies.

The data in Table 1 revealed that from the online survey conducted on 188 adolescents in Indonesia, 141 respondents knew about reproductive health information, which they learned for the first time in school. Students are taught about reproductive health for the first time in high school in biology lessons regarding the human life cycle, which begins with the pregnancy process. The high level of adolescent knowledge about reproductive health contradicts the fact that Indonesia still has high maternal and infant mortality rates. In 2017, Indonesia ranked third in Southeast Asia with 177 deaths per 100,000 live births. The leading causes were mothers' lack of knowledge about pregnancy emergencies, unintended pregnancies, and the assumption that pregnancy and childbirth are the full responsibility of the mother. Therefore, schools must be a place that supports youth to access information and regularly discuss reproductive health issues that will be useful in their time.

Adolescence is a crucial developmental phase of humans that involves changes in physical, cognitive and psychosocial, and independence. When they learn about themselves, they build healthy behaviors that they will carry into adulthood [21]. The absence of specific regulation in disseminating information via the internet will cause the spread of false health information among adolescents. Websites and social media can quickly spread health misinformation, as happened during the COVID-19 pandemic [22]. Other risks and dangers of online health information for adolescents include being overly obsessed with information that comes from untrusted sources, and even worse things can happen when they are more likely to trust news that comes from social media celebs that are not credible enough [23]. Thus, using online health information safely and effectively requires digital health literacy, which adolescents may not have, even though they are millennials.

The results show that 44 percent of respondents prefer their parents as the primary source of information on reproductive health literacy. Respondents also require reproductive health information at school, and they stated that the government is responsible for providing a place such as a comfortable library to access the information. In the past, the family was defined as a small family consisting of a father, mother, and children bound by blood relations. McLeod and Chaffee said that the family is the most appropriate place to discuss any information received from the mass media; each family member can convey and discuss the information with other members. They may have the same or different thoughts and perceptions depending on the quality of their knowledge. The function of the family becomes important in finding health information through the internet so that every family can help each other to clarify the information. Technology may have changed to digital so that information can quickly spread and help humans make decisions. Humans need each other to discuss the information adopted in their case. However, in the end, humans still need families who will always support every decision taken, and health professionals must ensure that the choice of health action follows their individual needs.

5. Conclusion

Reproductive health information-seeking behavior in adolescents relates to how adolescents obtain health information, with whom they discuss it, and whether they redistribute the information received. Adolescents generally know reproductive health information for the first time in high school. They get this knowledge from teachers and then prefer to discuss it with their peers. Adolescents need to know reproductive health information and feel delighted if they can discuss it with their parents. Reproductive health education is essential for adolescents early to avoid problems, such as unintended pregnancies. Therefore, the government should facilitate libraries and places to provide credible information related to reproductive health so that there will be no more misinformation for those who seek information through the internet. In the end, a family should communicate effectively so adolescents can calmly convey information received from outside and discuss it with other family members.

References

- [1] et al. Goossens J, Van Den Branden Y, Van der Sluys L, “The prevalence of unplanned pregnancy ending in birth, associated factors, and health outcomes.,” *Hum Reprod.*, vol. 31, pp. 1–13, 2016.
- [2] N. J. Kassebaum *et al.*, “Global, regional, and national levels of maternal mortality, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015,” *Lancet*, 2016, doi: 10.1016/S0140-6736(16)31470-2.
- [3] W. Jacobs, A. O. Amuta, and K. C. Jeon, “Health information seeking in the digital age: An analysis of health information seeking behavior among US adults,” *Cogent Soc. Sci.*, vol. 3, no. 1, 2017, doi: 10.1080/23311886.2017.1302785.
- [4] et al. Haffeejee F, O’Connor L, Govender N, “Factors associated with unintended pregnancy among women attending a public health facility in Kwazulu-Natal, South Africa.,” *S Afr Fam Pr.*, vol. 60, no. 3, pp. 50–55, 2018.
- [5] et al. Bearak J, Popinchalk A, Ganatra B, “Unintended pregnancy and abortion by income, region, and the legal status of abortion: estimates from a comprehensive model for 1990–2019.,” *Lancet Glob Heal.*, vol. 8, no. 9, pp. e1152–e1161, 2020.
- [6] X. Zhao, J. Fan, I. Basnyat, and B. Hu, *Social Media in Times of Crisis: Online Health Information Seeking using “#COVID-19 Patient Seeking Help” on Weibo in Wuhan, China (Preprint)*. JMIR Publications Inc., 2020. doi: 10.2196/preprints.22910.
- [7] Z. Niu, J. Willoughby, and R. Zhou, *Associations of Health Literacy, Social Media Use, and Self-Efficacy With Health Information-Seeking Intentions Among Social Media Users in China: Cross-sectional Survey (Preprint)*. JMIR Publications Inc., 2020. doi: 10.2196/preprints.19134.
- [8] N. Q. Anh, N. Graves, M. Dunne, and N. T. Huong, “Economic evaluation of health education programs: The case of adolescent reproductive health in Vietnam,” *Int. J. Healthc. Manag.*, vol. 14, no. 4, pp. 1171–1180, 2021, doi: 10.1080/20479700.2020.1755807.
- [9] H. K. C. K. Ramaiah, G. S. Prakash, and C. Deepti, “Oral Healthcare Information Seeking Behaviour of Pondicherry University Students,” *DESIDOC J. Libr. & Inf. Technol.*, vol. 40, no. 6, pp. 345–352, 2020, doi: 10.14429/djlit.40.06.16089.
- [10] J. J. I. Pinkerton SD, Holtgrave DR, “Economic evaluation of HIV risk reduction intervention in African-American male adolescents.,” *JAIDS J Acquir Immune Defic Syndr*, vol. 25, pp. 164–172, 2000.
- [11] M. Vasco Ramírez, “Management strategies using non-technical skills to reduce maternal and perinatal morbidity and mortality,” *Colomb. J. Anesthesiol.*, 2013, doi: 10.1016/j.rcae.2012.10.005.
- [12] H. S. Friedman *et al.*, “Encyclopedia of Mental Health,” in *Assessment and Therapy*, 2001. doi: 10.1016/b978-012267806-6/50061-5.
- [13] J. Manning, “When the Internet Becomes the Doctor: Seeking Health Information Online,” no.

JANUARY, 2015.

- [14] M. R. Laurent and T. J. Vickers, "Seeking Health Information Online: Does Wikipedia Matter?," *J. Am. Med. Informatics Assoc.*, vol. 16, no. 4, pp. 471–479, 2009, doi: 10.1197/jamia.M3059.
- [15] F. Ng, G. D. Smith, C. C. Ma, and L. W. Li, "Health Seeking Behaviour: Doctor Shopping," *Prim. Care Revisit.*, pp. 241–252, 2020, doi: 10.1007/978-981-15-2521-6_15.
- [16] D. Romer, V. F. Reyna, and T. D. Satterthwaite, "Beyond stereotypes of adolescent risk taking: Placing the adolescent brain in developmental context," *Dev. Cogn. Neurosci.*, vol. 27, no. July, pp. 19–34, 2017, doi: 10.1016/j.dcn.2017.07.007.
- [17] J. R. Fraenkel, N. E. Wallen, and H. H. Hyun, *How to Design and Evaluate Research in Education, 8th Edition (2012)*. 2012.
- [18] S. Chase, "Narrative Inquire: Multiple lenses, approaches and voices," in *Collecting and interpreting qualitative materials*, 2008.
- [19] E. L. Pallai and K. Tran, "Narrative Health: Using Story to Explore Definitions of Health and Address Bias in Health Care," *Perm. J.*, vol. 23, pp. 1–7, 2019, doi: 10.7812/TPP/18-052.
- [20] W. Stone and J. C. Faughnan, "Market Research–Health Literacy's Missing Ramp," *Am. J. Heal. Educ.*, vol. 53, no. 1, pp. 6–10, 2022, doi: 10.1080/19325037.2021.2001779.
- [21] D. Nwaneri and A. Sadoh, "Effect of health seeking behaviour of caregivers on severe malaria outcome in under-fives seen in a tertiary health institution in Nigeria," *Ghana Med. J.*, vol. 54, no. 3, pp. 156–163, 2020, doi: 10.4314/gmj.v54i3.6.
- [22] J. Zarocostas, "How to fight an infodemic," *Lancet (London, England)*, vol. 395, no. 10225, p. 676, 2020, doi: 10.1016/S0140-6736(20)30461-X.
- [23] D. Lupton, "Young people's use of digital health technologies in the global north: narrative review," *J. Med. Internet Res.*, vol. 23, no. 1, pp. 1–12, 2021, doi: 10.2196/18286.