



Digital Reproductive Health Literacy for a Couples: Understanding of Sexually Transmitted Infections and Reproductive Tract Infections

Inayatul Aini¹, Dwi Anik Karya Setiarini², Ruliati³, Nurul Azmi Arfan⁴, Rizka Firdausi Nuzula⁴

¹ S1 Hospital Administration Study Programme, Faculty of Health, ITSkes Insan Cendekia Medika Jombang, Indonesia

² D3 Midwifery Study Programme, Faculty of Vocational Studies, ITSkes Insan Cendekia Medika Jombang, Indonesia.

³ Nursing Profession Programme, Faculty of Health, ITSkes Insan Cendekia Medika Jombang, Indonesia.

⁴ D4 Midwifery Study Programme, Faculty of Vocational Studies, ITSkes Insan Cendekia Medika Jombang, Indonesia.

Received: October 25, 2023

Revised: November 26, 2023

Accepted: December 25, 2023

Published: December 31, 2023

Corresponding Author:

Inayatul Aini

inayad4icme@gmail.com

DOI: [10.29303/jppipa.v9iSpecialIssue.6402](https://doi.org/10.29303/jppipa.v9iSpecialIssue.6402)

© 2023 The Authors. This open access article is distributed under a (CC-BY License)



Abstract: This study aims to obtain a theoretical overview of how the tendency of couples to obtain information about sexually transmitted infections and reproductive tract infections. The review will focus on literature sources that have previously examined how the use of digital media as a source of knowledge to recognize sexually transmitted infections and reproductive tract infections. The research method in this study is a discourse search and analysis with a content analysis approach of a scientific work. The study will be described with a narrative that has been qualitatively analysis based on certain categories. Data sources are various scientific journals, reference books and other sources considered compatible with this study. The results of the study found that digital media became an alternative medium for accessing information. Knowledge about Sexually Transmitted Infections (STIs) and Reproductive Tract Infections (RTIs), is needed for newlywed couples, so that they have a reference for sexual behaviour. Good sex is sex that is done with a legal partner and guaranteed health, all of which information can be accessed through increasingly widespread digital media.

Keywords: Reproductive; Literacy; Sexually; Tract; Infections

Introduction

Social media is one of the development of the internet. Having a high-quality camera on a smartphone makes many people have a new fun activity, people will easily take pictures anywhere and anytime, after that uploaded to social media (Gikas & Grant, 2013). Types of social media commonly used include Facebook, Twitter, Path and Instagram (Greenhow & Chapman, 2020; Kuncoro & Thaha, 2023). Instagram is a photo sharing application that allows users to take photos, apply digital filters, and share them (Karundeng, 2020; Prihatiningsih, 2017).

The various types of social media with various advantages and disadvantages and the use of social media that continues to increase every year, has led researchers to conduct various studies related to this phenomenon. Various studies on the utilisation of social media have been conducted, among others, in the field of health (Anisah et al., 2021).

Health is one of the fields that experience the impact of technological developments in the digital era (Lee & Yoon, 2021; Rodriguez et al., 2020). The ease of accessing health information with the internet is an effect that can be felt by every individual in the digital era (Battineni et al., 2020). Information related to health can be spread quickly such as through websites, social

How to Cite:

Aini, I., Setiarini, D.A.K., Ruliati, R., Arfan, N.A., & Nuzula, R.F. (2023). Digital Reproductive Health Literacy for a Couples: Understanding of Sexually Transmitted Infections and Reproductive Tract Infections. *Jurnal Penelitian Pendidikan IPA*, 9(SpecialIssue), 400-405. <https://doi.org/10.29303/jppipa.v9iSpecialIssue.6402>

media, and digital communication media (Chen & Wang, 2021; Farsi, 2021). Health information can also be easily accessed by all levels of society regardless of age and educational background (Zimmerman & Shaw Jr, 2020).

Now the ease of obtaining health information is not only felt by urban communities that have more complete health service facilities than rural communities. The existence of internet networks that enter rural areas makes it easier for people to access various health information even though they are limited by distance in gaining access to health care facilities directly. Information seeking is about behavioral aspect. According to the theory of planned behavior, individuals are more likely to act on their behavioral intentions, and report intentions aligned with their attitudes and subjective norm, when their perceived behavioral control (PBC) is high (Hagger et al., 2022). Health information in this study is health information for married couples who are and or starting a new life. Therefore, in this research discourse, the above will be discussed in depth, in the discussion segment.

Method

The type of research used in this study is descriptive research with a qualitative approach. The data taken, identified in the following order: data collection; data sorting; data analysis; conclusion making. As for data analysis, there is a predetermined sequence in accordance with the empirical steps taken, namely as follows: Examination of data; suspected data findings; Data confirmation; Diagnosis; and Action. In the diagram can be described as the flow of research as follows, namely as follows:

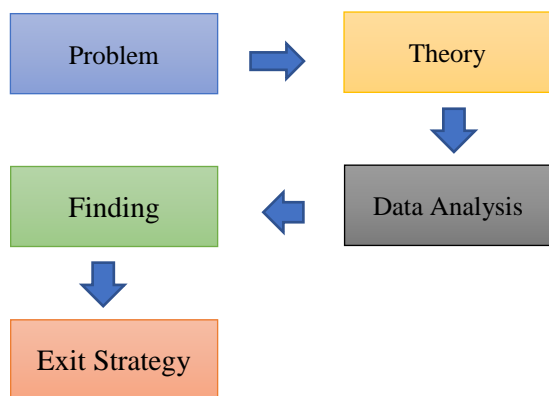


Figure 1. Research Logic Flow

This research is a literature study, which attempts to explain the research problem based on the theoretical level based on previous empirical and theoretical

research (Ilie et al., 2020; Nothnagel, 2008). From these various reference sources, a holistic understanding of the importance of thinking that reaches how local food sources are one of the sources of food that can be utilized to reduce the lack of nutritional intake in children who are stunted is elaborated.

Result and Discussion

Digital Media as An Information Medium

It cannot be denied that although there are many facilities that can help people check the truth of information, Today’s enterprises are hungry not only for people with STEM (science, technology, engineering and math) skills, but also for people who have the innovative acumen to help differentiate themselves from competitors. it must also be supported by reading literacy intelligence. Reading literacy is also important in digital literacy (Alakrash & Abdul Razak, 2021; Z.-J. Liu et al., 2020). It is not just about reading the headlines that are often interesting and viral, individuals also need to read the entire information provided. Therefore, people must also be willing and able to read to get the right health information. In addition, the community also needs to help disseminate correct information or clarify the spread of hoax news received (De Paor & Heravi, 2020). This is done so that the correct information can defeat the many hoaxes that have been spread.

The influence of New Media was so great on society individually and in groups. Various studies have proven how powerful the influence of new media is in social life, especially affecting the younger generation (Kurniawati & Baroroh, 2016). In order to avoid the "tsunami" of information, individuals must also be able to find and filter news according to their needs. As in the case of seeking health information, it would be better to get information from websites that specifically provide health information. Individuals also need to recognize who the right health information provider is, namely someone who is an expert in their field such as doctors and nurses or related organizations.

In addition, being smart in digital literacy also needs to raise awareness that the health information obtained cannot replace the diagnosis or the authority of the medical team in making clinical decisions (Al-Shorbaji & Al-Shorbaji, 2021; Senbekov et al., 2020). Therefore, people still need to use health care facilities properly despite the ease of obtaining health information. The development of science and technology encourages efforts to create quality human beings. One way to improve human quality is to improve the quality of education (Anisah et al., 2021).

Health literacy is a person's ability to obtain, process, and understand basic health information and service needs (C. Liu et al., 2020), which are required for

appropriate health decision-making (Zoellner et al., 2011), a high level of health literacy indicates that a particular individual is able to find, process and apply health-related information to their health. Those with lower levels of health are at higher risk of health problems.

That is, social media utilized in a teaching context can trigger unplanned learning, in the course of which students can find solutions to a number of problems (related to what they are doing in class) outside of formal instruction given by their teachers. The article contains a description of three recent teaching projects that aimed to achieve better learning outcomes through informal learning via social media (Alexander Tokar, 2012).

Health Content Information

Reproductive health is a process of human life that supported by several growths, development and physical changes that can naturally be felt in humans so that they can maintain in order to produce human beings of quality and quality. According to Dwi Maryanti reproductive health knowledge consists of three interrelated components, namely: Physical, Mental and Social.

About the physical, can be describe physical or "Body" is a term that means something that exists and can visible to the naked eye, which is also defined by the mind. The word physical is usually used for an object that is tangible and visible to the the eye. Physical can be used to describe the shape of an object or for infrastructure of a building. It can also mean that the body part human body (body) as a whole that can be sensed by eye and can be described with a sentence/definition. Physical or human body is a complex organ system and is very marvellous. All these organs are formed in the prenatal period (in the womb).

The second about the mental, the term mental is used to refer to the psychological capacity of people in responding to problems of life. There are people who have the ability to deal with problems that are heavy and long, people like this is called mentally strong. As for if a person has a psychological capacity is below normal, then when he is faced with problems will feel inferior, or give up easily, then he is referred to as a person who is mentally weak. People who is able to harmonise themselves with values, are called a mentally healthy person, while people who engage in commit deviant behaviour are referred to as people who are mentally mentally ill.

The third ia about social aspect. The term Social comes from Latin root word Socius, which means friends or society. Social has a general meaning general meaning of society in the narrow sense of priorititiing the common interest or society. Social has several terms, among others: Social is a state where There is the presence of

other people. That presence can be seen and felt, but it can also be and felt, but it can also be only in the form of imagination. Every individual meets people, even if they only see or hear, it is a social situation. social situation. Likewise, when individual is on the phone, or chatting over the internet. Likewise, every time individu imagines the presence of another person, for example remembering parents, writing letters to friends, imagining playing friends, imagining playing together, remembering bad behaviour in front of people, all of which include social.

Reproductive tract infections (RTIs) are a fairly common occurrence in the society. However, this disorder is often under-recognised, especially by women, due to the vague and non-specific symptoms that are often overlooked. due to vague and non-specific symptoms that are often ignored and not treated thoroughly. not treated thoroughly. In fact, the impact of this disorder can vary, ranging from complaints that are not resolved, widespread infection or inflammation, to severe complications such as infertility and an increased risk of HIV/AIDS infection. increased risk of HIV/AIDS infection. For this reason, the community needs to be given the community needs to be given sufficient knowledge about the recognition of symptoms and signs of reproductive tract infection, the introduction of the impact and danger of reproductive tract infection, introduction to the impact and dangers of this disorder, to the preventive measures that need to be taken so that in the end it can reduce the incidence of this disease.

The reproductive parts that must be kept clean and always healthy as a form of effort to nourish reproduction and sexuality. Reproductive health will affect the development of healthy fertilisation. Pregnancy and childbirth will be risky at the age of 16 because it is prone to miscarriage (Milla, 2023).

The signs of pregnancy and the actions that must be taken by husbands and wives, the husband must pay a lot of attention so that the wife feels that someone is looking after her while she is struggling with her pregnancy. Also we must know about sexually transmitted diseases such as HIV, syphilis and the like, these will all worsen reproductive health and these diseases can be transmitted to their partners.

What is a Reproductive Tract Infection

Infection due to the entry and proliferation of germs that cause infection into the human reproductive tract. The cause of reproductive tract infections can be bacteria, fungi, viruses and also parasites (Lujan et al., 2022; Pai et al., 2020). Compared to men, women are more susceptible to ISR, because the female reproductive tract is closer to the anus and urinary tract (Stieger-Vanegas & McKenzie, 2021). However, if we look at the symptoms that arise, it is easier to see in men

than women, so women rarely know if there is an infection in their reproductive tract.

RTI not only causes acute morbidity but can also lead to complications and sequelae, including pelvic inflammatory disease (PRP), chronic pelvic pain, spontaneous abortion, stillbirth, low birth weight, neonatal infections, and infertility. However, endogenous infections such as vulvovaginal candidiasis and bacterial vaginosis (BV) are still the most frequent ARI diseases. Residual faeces left behind due to incomplete washing after defecation. Lack of genital hygiene, especially during menstruation. Marriage at too young an age, and changing partners. Sexual intercourse with people with infections (RTIs and STIs) (Aboud et al., 2023; Aggarwal et al., 2022). Injuries during miscarriage and childbirth as a result of rape. Failure of health services in sterilization of tools and materials in conducting examinations around the reproductive organs.

Endogenous ISR, is the most common type of ISR in the world. It results from abnormal growth of organisms that should grow normally in the vagina. These include bacterial vaginosis and candidiasis which are curable. Endogenous UTIs are also associated with preterm labour and low birth weight (LBW) babies. Iatrogenic or medical procedure-related UTIs occur when the cause of infection (bacteria or other microorganisms) enters the reproductive tract through unsterile medical procedures. For example, menstrual induction, abortion, IUD insertion, during childbirth, or when an infection already presents in the lower reproductive tract spreads through the mouth of the uterus to the upper reproductive tract.

Sexually Transmitted Infections (STIs) are STIs that are mostly transmitted through sexual intercourse with an infected partner including trichomoniasis (Johnson & Jackson, 2021), gonorrhoea, chlamydia, syphilis, mole ulcers, HIV and AIDS, condyloma acuminata, genital herpes and others. Some of the symptoms that may arise include: Pain around the pelvis, Sudden high fever, Chills, Irregular menstruation, Abnormal vaginal discharge, Pain during sexual intercourse. If not treated properly, ISR will cause complications such as: Pelvic inflammation, Can have an impact on infertility, Disruption of pregnancy (abortion, premature birth) or even cause birth defects, as well as the possibility of cervical cancer. Increased risk of contracting STIs and HIV & AIDS. ISRs are unlike other infections, they are highly stigmatised and reflect the inequality between women and men, as it is often the women who feel the danger more.

How to prevent Reproductive Tract Infections (RTIS). Improved Individual Hygiene is a one of many ways. For example, by avoiding the use of vaginal douching. The negative impact can be reduced through

improved access to quality health care facilities and promotion of health-seeking behavior. Then, Sterilization of Medical Equipment Used. Health care workers must be disciplined in following standard protocols for the use of sterile equipment during examination or treatment of ISR before carrying out medical procedures. The next is avoiding Sexual Intercourse with Multiple Partners. In addition to preventing UTIs, avoiding risky sexual behavior such as abstinence can prevent us from contracting STIs whose consequences are far more dangerous than UTIs.

Conclusion

The social media utilized in a teaching context can trigger unplanned learning, in the course of which students can find solutions to a number of problems (related to what they are doing in class) outside of formal instruction given by their teachers. The article contains a description of health information that aimed to achieve better learning outcomes through informal learning via social media.

Acknowledgments

The author would like to thank the parties who have played a role in this research activity, so that this research can be carried out well. Thank you to the informants, and the local government for giving permission to researchers to complete this academic task.

Author Contributions

In this study, all researchers contributed actively with the tasks that were carried out together. In other words, this research was supported by equal distribution of roles and contributions of all authors, because each stage was always discussed together.

Funding

This research is an empirical research funded by the researchers themselves or independent research. So on this happy occasion, I as the first author express my highest appreciation and gratitude to my colleagues who are members of this research team for their financial participation.

Conflicts of Interest

In this research, there is no tug of interest and or hidden interests among the researchers. In addition, this research is also not an order from any funder because it is an independent research, or in other words, the research team itself plays a role in preparing proposals, selecting topics, conceptualizing problems, collecting data, analyzing problems, drawing conclusions until the publication stage in this journal.

References

- Aboud, S., Buhalata, S. N., Onduru, O. G., Chiduo, M. G., Kwesigabo, G. P., Mshana, S. E., Manjurano, A. M., Temu, M. M., Kishamawe, C., & Changalucha,

- J. M. (2023). High Prevalence of Sexually Transmitted and Reproductive Tract Infections (STI/RTIs) among Patients Attending STI/Outpatient Department Clinics in Tanzania. *Tropical Medicine and Infectious Disease*, 8(1), 62. <https://doi.org/10.3390/tropicalmed8010062>
- Aggarwal, S., Singh, A. K., Balaji, S., & Ambalkar, D. (2022). Sexually Transmitted Infections (STIs) and Its Changing Scenario: A Scoping Review. *Combinatorial Chemistry & High Throughput Screening*, 25(10), 1630-1638. <https://doi.org/10.2174/1386207324666210301093001>
- Al-Shorbaji, N., & Al-Shorbaji, N. (2021). Improving healthcare access through digital health: The use of information and communication technologies. *Healthcare Access*, 10. Retrieved from <https://www.intechopen.com/chapters/78328>
- Alakrash, H. M., & Abdul Razak, N. (2021). Technology-based language learning: Investigation of digital technology and digital literacy. *Sustainability*, 13(21), 12304. <https://doi.org/10.3390/su132112304>
- Alexander Tokar, E. a. (2012). *Science and the Internet*. düsseldorf university press, Düsseldorf.
- Anisah, N., Sartika, M., & Kurniawan, H. (2021). Penggunaan Media Sosial Instagram dalam Meningkatkan Literasi Kesehatan Pada Mahasiswa. *Jurnal Peurawi: Media Kajian Komunikasi Islam*, 4(2), 94. <https://doi.org/10.22373/jp.v4i2.11080>
- Battineni, G., Baldoni, S., Chintalapudi, N., Sagaro, G. G., Pallotta, G., Nittari, G., & Amenta, F. (2020). Factors affecting the quality and reliability of online health information. *Digital Health*, 6, 2055207620948996. <https://doi.org/10.1177/2055207620948999>
- Chen, J., & Wang, Y. (2021). Social media use for health purposes: systematic review. *Journal of Medical Internet Research*, 23(5), e17917. Retrieved from <https://www.jmir.org/2021/5/e17917/>
- De Paor, S., & Heravi, B. (2020). Information literacy and fake news: How the field of librarianship can help combat the epidemic of fake news. *The Journal of Academic Librarianship*, 46(5), 102218. <https://doi.org/10.1016/j.acalib.2020.102218>
- Farsi, D. (2021). Social media and health care, part I: literature review of social media use by health care providers. *Journal of Medical Internet Research*, 23(4), e23205. Retrieved from <https://www.jmir.org/2021/4/e23205/>
- Gikas, J., & Grant, M. M. (2013). Mobile computing devices in higher education: Student perspectives on learning with cellphones, smartphones & social media. *Internet and Higher Education*, 19, 18-26. <https://doi.org/10.1016/j.iheduc.2013.06.002>
- Greenhow, C., & Chapman, A. (2020). Social distancing meet social media: digital tools for connecting students, teachers, and citizens in an emergency. *Information and Learning Sciences*, 121(5/6), 341-352. <https://doi.org/10.1108/ILS-04-2020-0134>
- Hagger, M. S., Cheung, M. W. L., Ajzen, I., & Hamilton, K. (2022). Perceived Behavioral Control Moderating Effects in the Theory of Planned Behavior: A Meta-Analysis. *Health Psychology*, February. <https://doi.org/10.1037/hea0001153>
- Ilie, M. D., Maricuțoiu, L. P., Iancu, D. E., Smarandache, I. G., Mladenovici, V., Stoia, D. C. M., & Toth, S. A. (2020). Reviewing the research on instructional development programs for academics. Trying to tell a different story: A meta-analysis. *Educational Research Review*, 30, 100331. <https://doi.org/10.1016/j.edurev.2020.100331>
- Johnson, A., & Jackson, J. B. (2021). Sexually transmitted infections among college students. *Microbiol Infect Dis*, 5(1), 1-4. Retrieved from <https://scivisionpub.com/pdfs/sexually-transmitted-infections-among-college-students-1481.pdf>
- Karundeng, F. (2020). Developing Instagram Filter-Based Accounting Educational Game As A Fun Learning Media. *Review of Behavioral Aspect in Organizations and Society*, 2(2), 113-130. <https://doi.org/10.32770/rbaos.vol2113-130>
- Kuncoro, S., & Thaha, A. R. (2023). Optimizing Social Media Platforms for Enhanced Distance Learning Support Systems: A Case Study of Universitas Terbuka. *EduLine: Journal of Education and Learning Innovation*, 3(3), 431-436. <https://doi.org/10.35877/454RI.eduline2054>
- Kurniawati, J., & Baroroh, S. (2016). Literasi Media Digital Mahasiswa Universitas Muhammadiyah Bengkulu. *Jurnal Komunikator*, 8(2), 51-66. Retrieved from <https://journal.umy.ac.id/index.php/jkm/article/view/2069>
- Lee, D., & Yoon, S. N. (2021). Application of artificial intelligence-based technologies in the healthcare industry: Opportunities and challenges. *International Journal of Environmental Research and Public Health*, 18(1), 271. <https://doi.org/10.3390/ijerph18010271>
- Liu, C., Wang, D., Liu, C., Jiang, J., Wang, X., Chen, H., Ju, X., & Zhang, X. (2020). What is the meaning of health literacy? A systematic review and qualitative synthesis. *Family Medicine and Community Health*, 8(2). <https://doi.org/10.1136/fmch-2020-000351>
- Liu, Z.-J., Tretyakova, N., Fedorov, V., & Kharakhordina, M. (2020). Digital literacy and digital didactics as

- the basis for new learning models development. *International Journal of Emerging Technologies in Learning (IJET)*, 15(14), 4–18. Retrieved from <https://www.learntechlib.org/p/217585/>
- Lujan, A. L., Croci, D. O., Rabinovich, G. A., & Damiani, M. T. (2022). Galectins as potential therapeutic targets in STIs in the female genital tract. *Nature Reviews Urology*, 19(4), 240–252. <https://doi.org/10.1038/s41585-021-00562-1>
- Milla, M. N. (2023). Penyuluhan Kesehatan Pencegahan Infeksi Saluran Reproduksi di Kelurahan Sendangmulyo Semarang. *Jurnal ABDIMAS-KU: Jurnal Pengabdian Masyarakat Kedokteran*, 2(1), 1. <https://doi.org/10.30659/abdimasku.2.1.1-6>
- Nothnagel, K. (2008). *Empirical research within resource-based theory: A meta-analysis of the central propositions*. Springer Science & Business Media.
- Pai, M. O., Venkatesh, S., & Gupta, P. (2020). The role of infections in infertility: A review. *International Journal of Academic Medicine*, 6(3), 189–196. Retrieved from https://journals.lww.com/ijam/fulltext/2020/06030/the_role_of_infections_in_infertility__a_review.3.aspx
- Prihatiningsih, W. (2017). Motif Penggunaan Media Sosial Instagram Di Kalangan Remaja. *Communication*, 8(1), 51. <https://doi.org/10.36080/comm.v8i1.651>
- Rodriguez, J. A., Clark, C. R., & Bates, D. W. (2020). Digital health equity as a necessity in the 21st century cures act era. *Jama*, 323(23), 2381–2382. <https://doi.org/10.1001/jama.2020.7858>
- Senbekov, M., Saliev, T., Bukeyeva, Z., Almabayeva, A., Zhanaliyeva, M., Aitenova, N., Toishibekov, Y., Fakhradiyev, I., & others. (2020). The recent progress and applications of digital technologies in healthcare: a review. *International Journal of Telemedicine and Applications*, 2020. <https://doi.org/10.1155/2020/8830200>
- Stieger-Vanegas, S. M., & McKenzie, E. (2021). Imaging of the urinary and reproductive tract in small ruminants. *Veterinary Clinics: Food Animal Practice*, 37(1), 75–92. <https://doi.org/10.1016/j.cvfa.2020.10.002>
- Zimmerman, M. S., & Shaw Jr, G. (2020). Health information seeking behaviour: a concept analysis. *Health Information & Libraries Journal*, 37(3), 173–191. <https://doi.org/10.1111/hir.12287>
- Zoellner, J., You, W., Connell, C., Smith-Ray, R. L., Allen, K., Tucker, K. L., Davy, B. M., & Estabrooks, P. (2011). Health literacy is associated with healthy eating index scores and sugar-sweetened beverage intake: findings from the rural Lower Mississippi Delta. *Journal of the American Dietetic Association*, 111(7), 1012–1020.

<https://doi.org/10.1016/j.jada.2011.04.010>