

## THE IMPACT OF INSTAGRAM CONTENT ON ADOLESCENTS' KNOWLEDGE OF ADOLESCENT REPRODUCTIVE HEALTH

*Pengaruh Konten Instagram terhadap Pengetahuan Remaja tentang Kesehatan  
Reproduksi*

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### ABSTRAK

Remaja terhubung ke Internet yang memungkinkan dan menggunakan platform digital dalam kehidupan sehari-hari. Instagram menawarkan anonimitas, privasi, dan kontrol terhadap topik kesehatan seksual dan reproduksi bagi remaja. Remaja dapat mencari informasi tanpa rasa malu atau takut akan reaksi negatif. Penelitian ini mengevaluasi hubungan antara penggunaan konten kesehatan di Instagram dan pengetahuan kesehatan reproduksi remaja. Penelitian ini menggunakan desain kuantitatif dengan kuesioner online dan desain cross-sectional, dan jumlah responden 383 ditentukan dengan menggunakan teknik purposive sampling. Penelitian dilakukan pada remaja yang berdomisili di Pulau Jawa antara April hingga Mei 2020. Teknik pengumpulan data melalui wawancara dengan Andrea Gunawan pemilik akun Instagram @catwomanizer. Google form digunakan sebagai instrumen kuesioner dari Remaja dengan kriteria penyertaan usia 14-24 tahun dan belum menikah, bersedia menjadi responden dan berdomisili di Jawa. Hasilnya menunjukkan bahwa 63,2% responden menggunakan ekstensif konten kesehatan reproduksi Instagram, dan 55,1% responden kurang memiliki pengetahuan tentang kesehatan reproduksi. Hasil analisis bivariat dengan uji chi-square, terdapat keterkaitan antara intensitas penggunaan konten kesehatan reproduksi di Instagram (p-value 0.000) dengan tingkat pengetahuan remaja di Jawa. Instagram membantu remaja dengan mengajarkan mereka menemukan informasi kesehatan yang kredibel dan menghindari informasi yang salah.

**Kata kunci:** Instagram, kesehatan, pengetahuan, remaja, reproduksi

### ABSTRACT

Adolescents are connected to the enabling Internet and use digital platforms in their daily lives. Instagram offers teens anonymity, privacy, and control over sexual and reproductive health topics. Instagram provides anonymity, privacy, and control for teens regarding sensitive sexual and reproductive health content. Adolescents can seek information without embarrassment or fear of negative reactions from their parents. This study analyzed the association between adolescents' knowledge about reproductive health and the amount of Instagram content regarding reproductive health. This study used a quantitative design with an online questionnaire and a cross-sectional design, and the number of respondents (383) was determined using purposive sampling. This research was conducted on adolescents domiciled on Java Island between April and May 2020. The study collected data through interviews with Andrea Gunawan, the Instagram account @catwomanizer. Google Forms were used as the questionnaire tool. Adolescents with the criteria of inclusion aged 14–24 years, unmarried, willing to become respondents, and domiciled in Java were included. The results show that 63.2 % of respondents make extensive use of Instagram's reproductive health content, and 55.1 % of respondents lack knowledge about reproductive health. In light of the findings of the bivariate analysis using the chi-square test, there is a link between the intensity of use of reproductive health content on

Instagram (p-value 0.000) and adolescents' knowledge level in Java. Instagram helps adolescents by teaching them how to find credible health information and avoid misinformation.

**Keywords:** Instagram, knowledge, reproductive health, teenagers

## INTRODUCTION

According to the Indonesian Internet Service Providers Association (APJII), 64.8 percent of Indonesians were Internet users in 2018. Geographically, the population of Java Island accounts for 55% of all users, making it the country's largest Internet user base [1]. The prevalence of various forms of social media is another factor contributing to Indonesia's growing internet user base [2]. Social media is a platform, service, and communication tool that allows users to express themselves by interacting with and sharing content with others via the internet. According to the APJII 2018, Facebook, Instagram, and YouTube are the most widely used social media sites in Indonesia. Indonesia has the most Instagram the most popular social media platforms users in the Asia-Pacific region, according to data from the Facebook Country Head [3].

Of the 700 million monthly active users (MAU) of Instagram worldwide, 45 million are Indonesian. One of the most widely used social media sites is Instagram, with efficient features for sending information in photo and video formats [4]. Napoleon Chat reported that 37.3 of Instagram consumers in Indonesia were teenagers aged 18-24. According to statistics compiled by the APJII in 2018, the majority of Internet users in Indonesia are between 15 and 19 years old, followed by those between 20 and 24 years old [5].

Under the National Program, adolescents must receive education about adolescent reproductive health to reduce their risk of developing reproductive health issues (BKKBN). Adolescent Reproductive Health (KKR) knowledge was 57.1 % [5]. In general, adolescents find it awkward to discuss sexuality and reproductive health with their parents and other loved ones [6][7]. Young people can easily obtain and seek information about reproductive health through social media as a communication tool without having to engage with other people [8].

Instagram is the most popular social media platform in Indonesia, and its activities are either featured or serve as examples for young people [9]. Teens mimic others' actions based on what they read on Instagram. Celebrities and influencers are considered role models for youth on Instagram [8]. Teenagers' behaviors are frequently shaped by their admiration for influencers [10]. The @catwomanizer account is one of the Instagram users that often reveals facts and opinions of producers regarding adolescent reproductive health. It has approximately 224,000 followers. This account was part of the Instagram Image Consultant Dating Coach campaign [11].

To make the most of social media's potential to promote health, research has examined the association between the degree of awareness of youth on Java Island and the intensity of their use of adolescent reproductive health content on Instagram [12]. This study examined the relationship between the influence of Instagram content use and reproductive health knowledge among adolescents.

## METHODS

The research design was cross-sectional and observational. This research was conducted on adolescents domiciled on Java Island between April and May 2020. Cross-sectional research design to understand the dynamics of the correlation between stimulants and responses, by means of an observational approach or data collection carried out simultaneously between independent variables: A user is categorized as having high intensity of access to @Catwomanizer Instagram content with knowledge if they access the account frequently ( $\geq 4$  times/week), spend considerable time per visit ( $\geq 20$  minutes), actively engage with multiple features ( $\geq 3$  types of interactions), and

good knowledge if  $X \geq 35$  and less if  $X < 35$  report increased knowledge related to the content. The data collection technique in the study was carried out by an interview process with the researcher to Andrea Gunawan, as the @catwomanizer account holder, and by distributing questionnaires to the main respondents via Google Forms.

The survey population of all followers of the Instagram @catwomanizer social media account was 210,226. From the population of followers, a research sample of 383 respondents was selected. The study involved 14 unmarried, 24-year-old adolescents from Java Island, who were selected using a targeted sampling method. The study was approved by the University of Diponegoro Ethics Committee (Decree No: 131/EA/KEPK-FKM/2020), and data normalization was performed. Statistical analysis was performed using the chi-square test.

## RESULT

### Reproductive health content on Instagram @catwomanizer

Andrea Gunawan's Instagram account, @catwomanizer, has 224,000 followers and edits 1,516 stories daily. However, one day, he did not immediately edit his content and processed 2,429 posts per page. The study revealed that respondents most frequently consumed reproductive health content on Instagram, primarily focusing on sexually transmitted diseases, unplanned pregnancy risks, and contraception. Andrea Gunawan's health post on HIV testing for sexually active communities gained popularity, rated by 5,059 users. The post, featuring Indonesian and English colloquial styles, was liked by more than 2,000 users, primarily females.

### Characteristics of Respondents

This study examines the engagement of 14-24-year-old Instagram followers of the @catwomanizer account with reproductive health content, revealing that they find the content useful and engaging.

**Table 1. Frequency Distribution of Characteristic Respondents**

| Variabel                                    | Amount |      |       |
|---------------------------------------------|--------|------|-------|
|                                             | n      | %    | Total |
| Age (year)                                  |        |      |       |
| 14                                          | 1      | 0.3  | 383   |
| 15                                          | 6      | 1.6  | 383   |
| 16                                          | 3      | 0.8  | 383   |
| 17                                          | 10     | 2.6  | 383   |
| 18                                          | 16     | 4.2  | 383   |
| 19                                          | 22     | 5.7  | 383   |
| 20                                          | 48     | 12.5 | 383   |
| 21                                          | 58     | 15.1 | 383   |
| 22                                          | 87     | 22.7 | 383   |
| 23                                          | 71     | 18.5 | 383   |
| 24                                          | 61     | 15.9 | 383   |
| Gender                                      |        |      |       |
| Male                                        | 45     | 11.7 | 383   |
| Female                                      | 338    | 88.3 | 383   |
| Level of Education                          |        |      |       |
| Not taking formal education                 | 7      | 1.8  | 383   |
| Graduated from elementary school/equivalent | 2      | 0.5  | 383   |
| Graduated from middle school/equivalent     | 12     | 3.1  | 383   |
| Graduated from high school/equivalent       | 184    | 48   | 393   |
| Graduated diploma                           | 29     | 7.6  | 383   |

| Variabel     | Amount |      |       |
|--------------|--------|------|-------|
|              | n      | %    | Total |
| Graduated    | 149    |      | 383   |
| Domicile     |        |      |       |
| Banten       | 38     | 9.9  | 383   |
| Jakarta      | 106    | 27.7 | 383   |
| West Java    | 95     | 24.8 | 383   |
| Central Java | 54     | 14.1 | 383   |
| Yogyakarta   | 32     | 8.4  | 383   |
| East Java    | 38     | 9.9  | 383   |

Table 1 presents the sociodemographic characteristics. The largest proportion of respondents was aged 22 years (22.7%). and the smallest proportion was aged 14 years (0.3%). The majority of respondents were female (88.3%). and male respondents accounted for 11.7% of the total. In terms of education level, most respondents were high school graduates or equivalent (48%). while the fewest were elementary school graduates or their equivalent (0.5%). Regarding domicile, most respondents resided in DKI Jakarta Province (27.7%).

### Intensity of Utilization of Reproductive Health Content with Adolescent Knowledge Level

**Table 2. Cross-table Distribution of Intensity of Reproductive Health Content Utilization With Knowledge Level of Adolescents in Java Island**

| Intensity of Reproductive Health Content Utilization | Knowledge Level |      |      |      | Total |     |
|------------------------------------------------------|-----------------|------|------|------|-------|-----|
|                                                      | Good            |      | Less |      |       |     |
|                                                      | n               | %    | n    | %    | n     | %   |
| High                                                 | 131             | 54.1 | 100  | 70.9 | 242   | 100 |
| Low                                                  | 41              | 29.1 | 111  | 45.9 | 141   | 100 |
| p-value: 0.000                                       |                 |      |      |      |       |     |

p-value: 0.000

The study shows that adolescents on Java Island have a significant relationship between their knowledge level and the frequency of using reproductive health content on social media, with a high level of knowledge (54.1%).

## DISCUSSION

### Adolescent knowledge and engagement with reproductive health on Instagram

This study aimed to examine the impact of the intensity of exposure to reproductive health content on Instagram—specifically from the @catwomanizer account—on the knowledge of adolescents living on the island of Java. The intensity of use was measured by considering the frequency, duration, and utilization of Instagram features related to the reproductive health content.

This study assessed the knowledge of adolescents regarding reproductive health topics, including menstruation and pregnancy risks. The findings revealed that 55.1% of the respondents demonstrated good knowledge, while 44.9% had poor knowledge. The results of the chi-square test showed a significance value of  $p = 0.000$  ( $< 0.05$ ), indicating that the null hypothesis ( $H_0$ ) was rejected and the alternative hypothesis ( $H_a$ ) was accepted. This implies a strong correlation between the amount of Instagram exposure to content about reproductive health and the level of knowledge of adolescents in Java. Myers states that a behavior that constantly interacts with and influences others is an expression of attitude [13]. There is a strong correlation between the level of knowledge of Japanese teenagers who use reproductive health content on Instagram and the frequency, duration, and intensity of feature use when using reproductive health content on their @catwomanizer account.

Notoatmodjo explains that knowledge is the transformation of information from ignorance to knowledge after gaining familiarity with a specific subject or aim [14]. Based on a survey by Paramitha in SMAN 5, Samarinda found that 55 % of

adolescents frequently possessed sexual knowledge (31.1 %). indicating a significant relationship between social media usage and sexual knowledge [15]. Judith's research indicates a correlation between adolescent social media use frequency, duration, and intensity, with 47.04 % of adolescents using it for communication [16].

This text discusses adolescents' access to health information on the Internet, along with indicators used to measure their engagement. Insights from this study can inform social media health strategies, particularly in the area of reproductive health education. Instagram's evolving algorithms influence how content is displayed, often prioritizing platform-driven factors over user preference. The uncertainty surrounding the accuracy of reproductive health information further contributes to this misinformation. Although self-reported data are commonly used to assess user engagement, such measures may not fully capture actual interaction behaviors. According to Skinner's theory, when cognitive elements are effectively communicated, the signals delivered by communicators to organisms can elicit changes in emotional, cognitive, and empathetic attitudes of the organisms[17].

## CONCLUSION

Instagram's intensity of exposure helps reproductive health knowledge in adolescents as a supplementary tool rather than a primary educational source, and only when integrated with comprehensive, evidence-based reproductive health education from qualified sources. The platform's potential to help is maximized when adolescents are equipped with the skills to identify credible health information and avoid misinformation in the future.

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