

## Assessment of Social Media Needs for HIV Prevention Among Adolescents in Semarang City, Indonesia

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### ABSTRACT

**Background** HIV remains a global health concern, affecting 1.65 million adolescents worldwide. In Indonesia, HIV cases continue to rise, particularly among adolescents. In Semarang, adolescent knowledge of HIV remains limited, despite their active use of digital media. This study aimed to support the development of youth-friendly social media content for HIV prevention and education. **Method** A mixed-methods approach with an explanatory sequential design was employed. The quantitative phase involved 211 adolescents aged 16-18 in Sub-district X, Semarang City, using an online questionnaire. The qualitative phase included in-depth interviews with one adolescent engaging in risky sexual behavior, a counselor from the Central Java Provincial National Narcotics Agency (BNN), and a counselor from a local drug rehabilitation center. Data were analyzed using content analysis. **Result** Most adolescents received HIV information from teachers or health workers but preferred digital platforms such as Instagram. Misconceptions were common, including beliefs that HIV can be transmitted through kissing or mosquito bites. Adolescents were more concern about pregnancy than HIV, and sexual topics were considered taboo. In terms of media form, they favored creative content especially humorous videos and podcasts under 45 seconds. Preferred topics included HIV basics, mental health, prevention, healthy relationships, and stories of people living with HIV. **Conclusion** These findings underscore the need for engaging, youth-oriented digital strategies. Therefore, HIV prevention should leverage short, creative Instagram content, such as humorous videos and brief podcasts to address misconceptions and promote key themes like prevention, mental health, and healthy relationships among adolescents.

**Keywords:** Adolescent, HIV Prevention, Health Promotion, Social Media

### INTRODUCTION

By 2022, an estimated 39 million people were living with HIV worldwide, including approximately 1.65 million adolescents aged 10-19 (UNAIDS, 2022; UNICEF Indonesia, 2023). In fact, HIV has been listed in the SDGs (Sustainable Development Goals) targets that are expected to achieve sustainable development globally. This shows the world's attention to the HIV/AIDS epidemic.

In Southeast Asia, Indonesia ranks highest in terms of people living with HIV/AIDS (PLWHA), with 540,000 cases recorded in 2022 (UNAIDS, 2022). Indonesia's Ministry of Health noted that the number of new HIV cases marked the largest annual increase in the past decade (Kemenkes RI., 2022). At the provincial level, Semarang City reported 508 HIV cases as the highest in Central Java indicating a need for targeted prevention

efforts at the local level (Dinas Kesehatan Kota Semarang, 2023). This situation calls for multi-sectoral collaboration to implement sustainable HIV prevention strategies.

Adolescents are widely recognized as a high-risk group for HIV transmission (Bossonario *et al.*, 2022). For instance, a study on adolescents in Abidjan, Côte d'Ivoire showed that most HIV-positive adolescents engage in unprotected sex and lack adequate communication about HIV, thus increasing vulnerability and risk of further transmission (Richard *et al.*, 2020). A similar pattern is evident in Indonesia, where the 2017 Indonesian Demographic and Health Survey (IDHS) reported that 3.6% of adolescents had ever engaged in sexual intercourse, with condom use remaining notably low among those who were sexually active (Kemenkes RI, 2018). These findings underscore the persistent gaps in sexual health awareness and preventive behaviors among Indonesian

adolescent. In Semarang City, this issue is further reflected in local epidemiological data, where the Health Office reported six new HIV cases among adolescents aged 15-19 years in 2021, followed by a sharp increase to 45 cases in 2022 (Dinas Kesehatan Kota Semarang, 2023). This significant rise highlights the urgent need for targeted, adolescents centered HIV prevention strategies tailored to the local context.

A major barrier to effective HIV prevention among adolescents is inadequate knowledge. According to Green's theory of health behavior, knowledge acts as a predisposing factor that influences individual decisions related to health (Notoatmodjo, 2012). Therefore, adolescents who have good knowledge about HIV are associated 4 times with good HIV prevention behavior (Nyoko and Hara, 2020). However, the Global Early Adolescent Study Indonesia (GEAS-ID) revealed that adolescents in Semarang had lower HIV knowledge scores than the national average. Boys scored 0.67 compared to the national score of 1.02, and girls scored 0.43 compared to the national score of 0.70 (Pinandari and Mada, 2020). These findings underscore the imperative for context-specific, evidence-based educational interventions to enhance adolescents' comprehension of HIV and foster the adoption of effective preventive behaviors.

Despite these challenges, Indonesia's adolescent population is increasingly immersed in the digital ecosystem. The era of the Industrial Revolution 4.0 has transformed adolescents behavior and learning styles, with adolescents heavily reliant on smartphones, social media, and the internet for information (Abdullah, 2019; Adiansah *et al.*, 2019). This growing digital engagement presents a strategic opportunity to leverage online platforms, particularly social media, for delivering health education tailored to adolescents. Recent studies focusing on adolescents in Semarang indicate a strong preference for accessing information via digital media, particularly through social media platforms such as Instagram, TikTok, and YouTube (Putri, Manalu and Gono, 2024). Social media, in particular, offers anonymity, rapid dissemination, and content customization, making it an effective platform for reaching

adolescents (Zhu *et al.*, 2019). Therefore, integrating digital media into public health strategies represents a promising approach to increasing awareness and promoting positive health behaviors among adolescents.

Given their high engagement with online platforms, digital media offers a more effective means of delivering HIV-related information compared to conventional methods. Evidence from previous studies indicates that digital interventions are significantly more successful in improving adolescents' knowledge and attitudes toward HIV prevention (Ismayati, Rahayu and Rifai, 2023). This highlights the strategic importance of utilizing social media and other online tools to reach adolescents with health information that is not only relevant and accessible but also aligned with their communication preferences and daily media consumption patterns.

To maximize the potential of digital media in influencing adolescent behavior, it is essential to ensure that health messages are designed in ways that align with the audience's level of understanding and receptiveness. According to Notoatmodjo, effective health communication is achieved when the information conveyed matches the acceptance level of the target group, thereby increasing the likelihood of behavioral change (Notoatmodjo, 2010). In the context of adolescent HIV prevention, this means creating content that is not only informative but also engaging and relatable to their digital consumption habits. As adolescents increasingly turn to social media for information, the development of tailored, youth-friendly digital health media becomes a critical component of public health efforts.

Therefore, this study aims to critically examine adolescents' preferences, perceptions, and informational needs regarding HIV-related content on social media platforms, in order to inform the design of targeted, evidence-based communication strategies. Given the rising number of HIV cases among adolescents and the growing influence of digital media on their daily lives, such an assessment is essential to ensure that prevention messages are not only delivered effectively but also resonate with the intended audience. By identifying the most engaging content formats,

themes, and delivery channels, this study seeks to generate practical insights that can enhance the effectiveness of HIV prevention efforts among adolescents particularly through youth-friendly, culturally relevant, and context-specific social media interventions in Semarang City.

## METHODS

### Research Design

This study employed a mixed methods approach using an explanatory sequential design. The research began with quantitative data collection via an online survey distributed through Google Forms. This phase was followed by qualitative data collection through in-depth interviews to provide a deeper understanding and triangulate the survey findings.

### Ethical considerations

All respondents in this study provided informed consent by agreeing to a consent statement embedded at the beginning of the Google Form questionnaire. This research has passed ethical review by the Health Research Ethics Commission, Faculty of Public Health, Diponegoro University with letter number: 345/EA/KEPK-FKM/2024. A total of 211 adolescents were recruited through purposive sampling. The inclusion criteria included adolescents aged 16-18 years, residing in Sub-district X, Semarang City, and willing to participate. Research credibility was enhanced using method triangulation, comparing quantitative data with insights gathered through in-depth interviews. These interviews involved one adolescent who had engaged in risky sexual behavior, a counselor from the National Narcotics Board (BNN) of Central Java Province, and a counselor from a drug rehabilitation center in Semarang.

### Research Procedure

To address of this mixed methods study, a structured questionnaire was developed and adapted based on validated tools from previous research on adolescent HIV knowledge and social media behaviors. The development process involved a participatory approach, incorporating input from public health professionals and adolescent representatives. The quantitative portion of the questionnaire

included semi-closed questions designed to assess key variables such as knowledge of HIV transmission and prevention, HIV risk behaviors, health information sources and social media use patterns. This structure allows for quantifiable comparisons and statistical analysis. In parallel, the qualitative component featured several open-ended questions aimed at capturing adolescents' and experts' perceptions and suggestions on effective content and formats for HIV education on social media. These responses provide deeper insights into contextual factors and user preferences that cannot be fully explained by quantitative data. This dual-format instrument ensured alignment with the study's explanatory sequential design, which allowed the initial quantitative findings to inform the exploration of more nuanced perspectives in the qualitative phase.

The study was conducted in Sub-district X, Semarang City. Initial coordination was established with the village social affairs division and local youth organization leaders to facilitate the distribution of questionnaires. A network of youth representatives from various neighborhood units assisted in disseminating the online survey, which was conducted between July to December 2024. The Google Form included an informed consent statement and detailed instructions for completion. To acknowledge their support, each local youth representative received a compensation of IDR 100,000 for their assistance in reaching respondents.

The qualitative phase used purposive sampling to select three key informants representing different perspectives: an adolescent with risky sexual behavior, a counselor from the Central Java provincial BNN, and a counselor from a local drug rehabilitation center. The adolescent was recruited through community networks, taking into account confidentiality and their willingness to discuss sensitive issues. Counselors from prevention and rehabilitation services provided complementary professional insights into adolescent behavior and HIV prevention challenges. This diversity of informants enhanced the credibility and depth of the qualitative finding.

For the qualitative phase, in-depth interviews with adolescents exhibiting

risky behaviors were conducted in informal settings preferred by the participant, such as coffee shops, to ensure a comfortable environment. Additionally, interviews with counselors from the Central Java provincial BNN and a drug rehabilitation center were conducted at their respective offices. All interviews were audio-recorded with prior informed consent.

### Data Analysis

Quantitative data from the survey were analyzed using descriptive statistics to identify patterns related to adolescents' knowledge, behaviors, and social media needs for HIV prevention. Each response was coded and organized to simplify interpretation. For the qualitative phase, all interview recordings were transcribed word-for-word. The transcripts were then analyzed using content analysis, starting with open coding to identify key ideas and meanings. These codes were grouped into broader themes using an inductive approach, allowing the findings to emerge from the data. The validity of the findings was further supported through data triangulation by comparing insights from different types of informants and aligning them with the survey results.

## RESULTS AND DISCUSSION

### Respondent Characteristic

The respondents consisted of 211 adolescents aged between 16 and 18 years. The remaining demographic characteristics of the participants are presented in Table 1. The triangulated informant is a 17-year-old female adolescent with heterosexual sexual orientation, 1 counselor of National Anti-Narcotics Agency in Central Java Province and 1 counselor of drug rehabilitation in Semarang City.

**Table 1.** Characteristics Respondent Based Age, Sex and Sex Orientation

Characteristics	Frequency	%
<b>Age</b>		
16	56	26.5
17	88	41.7
18	67	31.8
<b>Total</b>	<b>211</b>	<b>100</b>
<b>Gender</b>		
Man	89	42.2
Women	122	57.8
<b>Total</b>	<b>211</b>	<b>100</b>
<b>Sex Orientation</b>		
Heterosexual	192	91

Homosexual	7	3.3
Bisexual	12	5.7
<b>Total</b>	<b>211</b>	<b>100</b>

### A. Analysis of Adolescent Behavior

#### 1. Adolescent Risky Sexual Behavior

Of the 211 adolescents, it was found that 6 of them had had sexual intercourse. This finding, while relatively low in prevalence, is consistent with national trends reported by Indonesia's Global School-based Health Survey (GSHS), which found that a small but notable proportion of adolescents engage in early sexual activity (Rizkianti *et al.*, 2020). The history of sexual intercourse is listed in Table 2.

**Table 2.** Sexual History of Respondents Based on Age, Gender, Sexual Practices, and Partner Count

Age	Gender	Sexual Practice	Partner Count
18	Female	Vagina	1
18	Male	Vagina and Oral	5
17	Female	Vagina, Anal and Oral	4
17	Male	Anal and Oral	6
17	Female	Vagina	1
18	Female	Vagina	1

Most respondents had vaginal intercourse, and one adolescent reported engaging in homosexual behavior. This finding reflects that adolescents may engage in sexual activity when their perceived vulnerability to HIV or other consequences (e.g., pregnancy, STIs) is low as outlined in the Health Belief Model theory (Notoatmodjo, 2012). Such perceptions may be shaped not only by individual knowledge but also by broader social and relational contexts.

These sexual encounters generally occurred within romantic relationships or with friends, whereas the homosexual respondent described casual encounters facilitated by dating applications. Many adolescents view sexual activity as a form of emotional intimacy and trust within romantic partnerships (Manlove, Ryan and Franzetta, 2003). This finding aligns with previous studies indicating that adolescents who are involved in romantic relationships are at greater risk of engaging in premarital sexual intercourse (Fadillah *et al.*, 2023). Consistent with this, the present study also found that some adolescents reported engaging in sexual activity with multiple partners,



suggesting a pattern of risky behavior that may be reinforced within peer and relationship dynamics. Adolescents who are surrounded by peers who normalize or encourage sexual activity without protection are more likely to adopt similar behaviors. Peer influence plays a significant role, adolescents exposed to negative peer pressure are 4.1 times more likely to engage in risky sexual behaviors (Ginting, Septiwiarsi and Iskandar, 2023).

In terms of protection, most adolescents admitted to rarely using condoms during sexual activity, and some reported engaging in sexual intercourse with more than one partner. This finding is consistent with previous studies indicating a significant association between having multiple sexual partners and inconsistent condom use among adolescents (Huda, Rouf and Shawon, 2024). Interestingly, only one adolescent reported consistent condom use. The experience shared by triangulated adolescent informant (K) indicated that condom use was generally a personal initiative and often depended on contextual factors, such as the availability of condoms at places like hotels. These findings underscore the structural challenges that hinder consistent condom use. In particular, adolescents with limited access to condoms are more likely to engage in unprotected sex (Limasale, Istiarti and Musthofa, 2017). According to Lawrence Green's theory, health behavior is shaped by various enabling factors, one of which is the availability of health-related facilities and resources (Notoatmodjo, 2010). Therefore, improving access to condoms may be a crucial step toward promoting safer sexual practices among adolescent.

## 2. Adolescent Injection Drug Use Behavior

All 211 adolescent respondents reported never having used injection drugs. This aligns with information from a counselor at the National Anti-Narcotics Agency (BNN) of Central Java Province, who stated that since 2017, there have been no recorded cases of injecting drug use (IDU) among adolescents in the region. Similarly, a counselor at a drug rehabilitation center in Semarang confirmed that adolescent IDUs were not among their patients. Rather than injecting drugs, adolescents more commonly reported the use of substances

such as methamphetamine, ecstasy, or pills.

Further insights from a counselor at BNN revealed that the lack of adolescent IDUs may be attributed to multiple factors. The use of injection drugs is considered expensive and logistically challenging, requiring specific tools and knowledge of safe injecting techniques. Additionally, many adolescents express a fear of needles, making them more likely to use drugs that are easier to consume, such as those that can be smoked or swallowed. This pattern is consistent with prior findings, which suggest that the complexity and perceived risk associated with injection drug use act as deterrents among adolescents, especially when compared to more accessible forms of substance use (Bailey *et al.*, 2007).

## 3. HIV Prevention Behaviour

Among all respondents, only four adolescents reported ever having an HIV test, and only two had ever had sexual intercourse. This reflects low levels of proactive sexual health behaviors, even among those at risk. The lack of association between sexual activity and HIV testing suggests that many adolescents do not consider themselves vulnerable or do not have sufficient motivation and access to HIV testing. This finding is consistent with previous research, which also found no significant association between risky sexual behavior and HIV testing (Pratiwi and Basuki, 2011). According to Health Seeking Behavior Theory, the decision to take an HIV test is influenced by perceived risks, perceived benefits, and access to services and information (Notoatmodjo, 2012).

Although most adolescents (n=207) stated that they had received health information about HIV, a small number (n=4) reported never having received such information. The primary sources of information included teachers (101 adolescents), healthcare workers (95 adolescents), and parents (67 adolescents). However, many adolescents expressed a preference for seeking health-related information independently through digital media that aligns with their personal interests. This tendency may be shaped by sociocultural norms in which discussions about sexuality remain highly stigmatized. According to one adolescent informant (K), parents often reinforce the

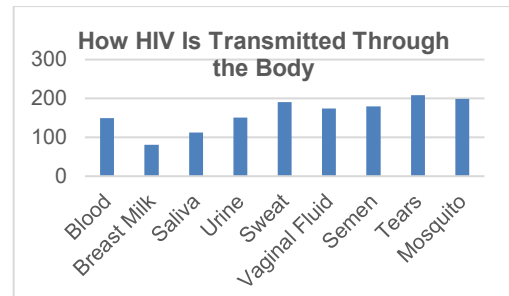
notion that any topic related to sexuality is taboo and considered a violation of religious values. In such environments, adolescents may turn to peers or the internet as alternative sources of information, which increases their vulnerability to misinformation and entrenches misconceptions (Widman *et al.*, 2017).

Survey data showed that 73% (n=154) of adolescents preferred to receive HIV-related health information through online channels. Furthermore, 151 adolescents indicated an interest in obtaining health information via social media platforms such as Instagram, TikTok, YouTube, and Threads. For instance a study in Indonesia also found that social media platforms such as Facebook, Instagram, Line, WhatsApp, Twitter, and YouTube are perceived by adolescents as more engaging, relatable, and aligned with their lifestyle (Solehati, Rahmat and Kosasih, 2019). This reflects a broader trend in which adolescents gravitate toward digital platforms that offer flexibility, anonymity, and content that is tailored to their age group. These findings align with existing literature indicating that adolescents increasingly rely on digital media as a primary source of health information due to its accessibility, visual appeal, and interactive nature (Yonker *et al.*, 2015). Social media platforms are especially appealing to adolescents because they provide fast, relatable information that fits their personal interests and cultural background. According to the Health Belief Model theory, this type of digital content can act as cues to action, external triggers that encourage adolescents to learn more or take steps to prevent HIV (Notoatmodjo, 2012). In addition, the ability to access this information privately and at any time helps reduce barriers such as feelings of shame or discomfort when talking about sexual health in public or face-to-face settings (Waling, Farrugia and Fraser, 2023).

These findings are consistent with prior research, which highlights that adolescents often prefer accessing sexual and reproductive health information through digital media rather than from parents or formal institutions (Zhu *et al.*, 2019). These platforms offer not only accessibility but also an interactive environment that supports their curiosity and learning needs regarding sensitive topics such as sexuality and HIV.

## B. Content Analysis

### 1. Knowledge and Awareness about HIV



**Figure 1.** How HIV Is Transmitted Through the Body

Figure 1 illustrates that although the majority of adolescents demonstrated basic knowledge regarding HIV transmission as adolescents (n=208) knew that HIV can be transmitted through sexual intercourse, through injection drug use (n=168), and through blood transfusion (=166), misconceptions remain widespread. For example, adolescents believed that HIV can be transmitted through kissing (n=110), hereditary (n=70), hugging (n=20), handshakes (n=15), coughing (n=15), and through mosquito bites (n=5). One triangulated adolescent informant (K) described a belief that HIV could enter the body through various orifices, such as the mouth or nose, via tears or saliva, it's an interpretation that reflects significant gaps in understanding of HIV transmission. For instance, adolescents in Malawi also held similar misconceptions about HIV, which were attributed to insufficient education, reliance on peer knowledge, and cultural taboos around discussing sexuality. (Mandiwa, Namondwe and Munthali, 2021).

According to the Health Belief Model, misconceptions about HIV transmission can create barriers to adopting preventive behaviors. When adolescents misunderstand how HIV is transmitted, they may either fear harmless interactions or feel overly confident in risky situations, such as unprotected sex. This misjudgment can lead to poor decision-making and reduced motivation to take protective actions (Champion and Skinner, 2008).

This is consistent with the findings of this study, where 22.3% of adolescents believe that having sexual intercourse only once with an HIV-positive person does not pose a risk of transmission. In addition,

adolescents' concerns seem to focus more on the fear of unwanted pregnancy rather than HIV. For example, a triangulated adolescent informant (K) said that she had repeatedly purchased pregnancy test kits, indicating a perception that pregnancy is the most direct consequence of sexual activity. This finding is evidence of the impact of knowledge misconceptions, where adolescents underestimate the actual threat of HIV transmission. Such misconceptions can lead to risk-taking behavior due to a false sense of security.

In line with this, Green's PRECEDE-PROCEED model identifies knowledge as a key predisposing factor that shapes individual health behaviors (Notoatmodjo, 2010). Limited or inaccurate knowledge can serve as a barrier to preventive behaviors and may result in adolescents underestimating their vulnerability to HIV infection. This emphasizes the critical need for delivering accurate, adolescent-friendly information through accessible and engaging platforms such as social media, which could play a pivotal role in HIV prevention strategies.

## 2. Social Media Content Model

Data collected from the Google Form questionnaire distributed to adolescents revealed the types of social media content they require. The categories of content most relevant to HIV education included characteristics of HIV (n=179), Stories of People Living with HIV (PLHIV) (n=165), HIV transmission (n=158), Mental health (n=127), HIV prevention (n=106), the dangers of free sex (n=101), and Healthy dating (n=95). The findings indicate that adolescents prioritize content related to basic HIV knowledge, such as transmission modes, prevention strategies, and stories from people living with HIV (PLHIV), as well as content supporting mental health and healthy relationships. This preference reflects adolescents' need for information that not only increases cognitive understanding but also resonates emotionally and socially.

The inclusion of stories from people living with HIV (PLHIV) could be particularly impactful in reducing stigma and fostering understanding. Previous studies have emphasized the importance of integrating personalized, relatable content, such as stories from PLHIV, as it helps reduce stigma and increases empathy among adolescents (Chenneville

*et al.*, 2024). From a behavioral perspective, this aligns with Bandura's Social Cognitive Theory, which emphasizes the role of observational learning and modeling in shaping behavior (Notoatmodjo, 2012). Content such as PLHIV stories serves as vicarious experiences that may increase adolescents' perceived self-efficacy and reduce stigma, which are essential components in behavior changes.

In addition, a triangulated adolescent informant emphasized the importance of positive friendships, expressing a desire for content that promotes supportive and healthy relationship dynamics. This aligns with the broader psychosocial concerns identified in the study, particularly adolescents' interest in mental health and healthy dating. According to the Theory of Planned Behavior, behavioral intentions are shaped not only by individual attitudes and perceived behavioral control, but also by subjective norms social pressures and expectations perceived from peers and close relationships (Ajzen, 1991). Therefore, content that highlights emotional well-being and models healthy interpersonal relationships has the potential to reshape normative beliefs, foster supportive peer environments, and guide adolescents toward more informed and responsible sexual decision-making.

Regarding content format, the data indicated that adolescents preferred video content (n=100), followed by posters (n=77) and leaflets (n=34). Research from Blitar City also showed that video-based health education significantly improved adolescents' knowledge and attitudes toward health (Sabhita *et al.*, 2022), highlighting the effectiveness of video content in HIV prevention education. A triangulated informant further emphasized that podcasts, as an easily accessible and enjoyable medium, are a preferred way for adolescents to engage with health information. This is consistent with findings that podcast usage is positively associated with learning and academic performance (Jha *et al.*, 2024). Given the growing popularity and accessibility of podcasts, they represent a valuable platform for disseminating HIV prevention messages.

A triangulated informant mentioned that more informal content, such as parody videos or lighthearted representations of

HIV-related issues, would likely be more appealing to adolescents. This reflects the desire for content that is engaging and relatable, rather than overly formal or didactic. Previous research has demonstrated that humor and informal formats can increase engagement and message retention among adolescents, increasing awareness and help-seeking behavior for public health priorities, particularly those associated with stigma (Miller *et al.*, 2021). Additionally, integrating edutainment-based strategies has been found to reduce risky sexual behaviors by promoting informed decision-making and enhancing self-protection skills (Salsabilla *et al.*, 2025).

The preference for video-based formats and lighthearted or entertaining content such as parodies can also be understood through the lens of the Elaboration Likelihood Model (Petty and Cacioppo, 1986). Adolescents are more likely to engage with information presented in a peripheral, entertaining route when it is brief and emotionally appealing. Humorous or informal formats reduce psychological resistance, facilitate message acceptance, and support longer-term retention.

In terms of social media platforms, the informant also suggested that videos—typically ranging between 45 to 60 seconds—should be optimized for educational content, as shorter durations are more likely to retain the audience's attention. This aligns with the concept of microlearning, which involves delivering concise educational content in short, focused segments, often under one minute. Such an approach has been shown to be highly effective, particularly in reinforcing key messages and reminders (Ilham *et al.*, 2023). This format is especially well-suited for HIV education when delivered through platforms like Instagram, where short, visually appealing content is essential for maintaining adolescent engagement.

Building on this, integrating microlearning strategies into HIV-related social media content aligns with adolescents' digital media habits. According to the Uses and Gratifications Theory, adolescents actively seek media that fulfills their informational and emotional needs. Their preference for brief, visually engaging formats reflects a desire for autonomy and relevance in

accessing health information (Ruggiero, 2000). This approach also reinforces digital media's role as both a "cue to action" as outlined in the Health Belief Model (Champion and Skinner, 2008) and a means of social modeling. Repeated exposure to engaging, stigma-reducing content can help normalize HIV prevention behaviors and influence safer decision-making. Thus, adopting microlearning-based and emotionally engaging content tailored to social media platforms is a strategic way to enhance adolescent health literacy, encourage protective behaviors, and reduce HIV-related stigma.

### C. Summary of The Need Assessment

#### 1. The content need by Adolescents

- a. **HIV-Related Information.** Adolescents expressed strong interest in foundational topics such as the nature of HIV, its modes of transmission, and prevention strategies. These topics were prioritized for their educational value.
- b. **Stigma Reduction Through Storytelling.** Content featuring real-life stories of People Living with HIV (PLHIV) was considered important to build empathy, reduce stigma, and make the issue more relatable.
- c. **Mental Health and Relationships.** Adolescents also sought guidance on managing mental health, positive friendships, healthy dating practices, and avoiding risky sexual behaviors.
- d. **Clarification of Misconceptions.** Widespread misunderstandings (e.g., believing HIV can be transmitted through kissing or mosquito bites) highlighted the need for myth-busting content to correct misinformation.

#### 2. The Learning Methods Required

- a. **Digital Media Preference.** Most adolescents preferred to access HIV information via digital platforms like Instagram and podcasts, which offer anonymity, flexibility, and adolescent centric content.
- b. **Engaging Formats.** Video was the most preferred content format, followed by posters and leaflets. Informal and entertaining styles, including parody videos, were found to be more effective in capturing attention.
- c. **Short and Focused Delivery.** Microlearning methods, such as short videos or messages under one minute,



were favored. The aim for their high engagement potential and ability to reinforce key messages.

## CONCLUSION

The findings from this need assessment highlight the importance of addressing both the informational and emotional needs of adolescents through digital platforms. Social media—when utilized with engaging, brief, and relatable content—offers an effective vehicle for delivering HIV prevention messages tailored to adolescent behavior, knowledge gaps, and media preferences.

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