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ORIGINAL ARTICLE

ADOLESCENT KNOWLEDGE AND PERCEPTION OF HIV/ AIDS STIGMATIZATION IN THE INDONESIAN CONTEXT

Hubungan Tingkat Pengetahuan dan Persepsi Remaja Terhadap Stigma Kepada Orang Dengan HIV/AIDS di Indonesia

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ABSTRACT

Background: Stigmatization of People Living with HIV/AIDS (PLWHA) among adolescents today has become a significant barrier to preventing the increase of HIV/AIDS cases, including understanding those at risk and PLWHA themselves. Adolescents' knowledge and perceptions about PLWHA significantly influence HIV/AIDS stigma, given that adolescence signifies a phase of profound biological, psychological, and social transition. **Objective:** This research aims to determine the correlation between knowledge and perception of the stigma against people living with HIV/AIDS. **Methods:** This study utilizes secondary data from the Indonesian Demographic and Health Survey (IDHS) 2017, analyzed using a cross-sectional method. The sample consisted of 14,270 adolescents in Indonesia aged 15 to 24 years. The study employed questionnaires on HIV/AIDS knowledge, perception towards PLWHA, and stigma towards PLWHA. Data analysis was conducted using univariate analysis to observe frequency distribution and bivariate analysis with a chi-square test to examine the relationship between two variables. **Results:** The research results indicate a significant correlation between adolescents' knowledge and stigma towards PLWHA at 0.00 ($p<0.05$), as well as a significant correlation between adolescents' perception and stigma towards people with HIV/AIDS at 0.00 ($p<0.05$). **Conclusion:** Prevention efforts through education and comprehensive approaches in delivering health information in a way that is well-received by adolescents can be presented innovatively.

ABSTRAK

Latar Belakang: *Stigma kepada Orang dengan HIV/AIDS (ODHA) pada remaja saat ini menjadi hambatan terbesar dalam mencegah penambahan*

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kejadian kasus HIV/AIDS, termasuk di dalamnya memahami orang yang berisiko maupun ODHA itu sendiri. Pengetahuan dan persepsi remaja terhadap ODHA menjadi peran yang besar dalam mempengaruhi stigma HIV/AIDS, hal ini dikarenakan pada masa remaja merupakan masa transisi baik secara biologis, psikologis dan sosial. ***Tujuan:*** *Tujuan penelitian ini adalah untuk mengetahui korelasi pengetahuan dan persepsi terhadap stigma pada orang dengan HIV/AIDS.* ***Metode:*** *Penelitian ini menggunakan data sekunder yang bersumber dari data Survei Demografi dan Kesehatan Indonesia (SDKI) tahun 2017 yang dianalisis dengan metode cross sectional. Sampel yang diambil sebanyak 14.270 remaja di Indonesia usia 15 s.d. 24 tahun. Penelitian ini adalah menggunakan kuesioner tentang pengetahuan HIV/AIDS, kuesioner persepsi terhadap ODHA dan kuesioner stigma terhadap ODHA. Analisis data dilakukan dengan analisis univariat untuk melihat distribusi frekuensi dan analisis bivariat dengan uji chi-square untuk melihat hubungan antar dua variabel.* ***Hasil:*** *Hasil penelitian menunjukkan adanya hubungan signifikan antara pengetahuan remaja dengan stigma terhadap ODHA 0,00 (p<0,05), adanya hubungan signifikan persepsi remaja dengan stigma terhadap orang dengan HIV/AIDS sebesar 0,00 (p<0,05).* ***Kesimpulan:*** *Upaya pencegahan melalui edukasi dan pendekatan komprehensif dalam penyampaian informasi kesehatan agar dapat diterima dengan baik oleh remaja, materi edukasi dapat disajikan secara inovatif.*

INTRODUCTION

Around 40 million people worldwide are infected with HIV, and 95% of those infected are from developing countries. The AIDS pandemic can affect people of all ages, including young people. Data indicates that over half of new HIV infections occur in teenagers aged 15-24 (1). According to the WHO, approximately 50% of all HIV/AIDS cases are young people, with around 7,000 people aged 15-24 years getting infected with HIV/AIDS every day. Unfortunately, many young people are unaware of this situation, especially those sexually active and unaware of their partner's HIV status. Therefore, young people need to understand the risks of HIV/AIDS and take appropriate prevention measures to protect themselves and their partners (2).

United Nations (2007) emphasizes that adolescents aged 15-24 years are a potential human resource as future successors. Adolescence marks a pivotal transition involving physical, psychological, and social shifts toward adulthood. Consequently, governments must proactively address public health, anticipating shifts in adolescent behavior and reproductive health. Adolescents are particularly vulnerable, adequate knowledge is required to protect them from HIV/AIDS (3). Today, adolescents access diverse channels like family, friends, teachers, and the internet to gain their HIV/AIDS knowledge (4).

The issue of HIV/AIDS as a contagious disease is associated with adolescent behavior and reproductive health, leading to a continued increase in infectious diseases. This becomes a problem as adolescents tend to make decisions driven more by emotions than logic, potentially resulting in risky sexual behavior due to insufficient and inaccurate reproductive health information (5,6). Misinformation may trigger risky sexual behavior among adolescents, such as premarital sex, which can lead to the spread of Sexually Transmitted Infections (STIs), including Human Immunodeficiency Virus (HIV) (7).

Indonesia is currently ranked fifth among countries at high risk of HIV/AIDS (8). The disease has emerged as a new epidemic throughout Indonesia. The number of new HIV cases reached 2.1 million in 2013, resulting in 1.5 million AIDS-related deaths. Among these, 1.3 million were adults, and 190,000 were children under the age of 15. Therefore, more serious efforts are needed to address the HIV/AIDS problem in Indonesia to reduce the infection and death rates caused by this disease (9)

Different perceptions among students due to a lack of knowledge about HIV/AIDS can exacerbate the stigma experienced by People Living with HIV/AIDS (PLWHA) (10). Perception

is an individual's interpretation of objects, events, or information based on life experiences (11). Inaccurate or inadequate perceptions negatively impact an individual's actions and attitudes toward PLWHA. Therefore, accurate knowledge about HIV/AIDS must be delivered, especially among students, to help them develop accurate perceptions and not worsen the stigma towards PLWHA. Different perspectives on a subject are held by different individuals, whether positive or negative and affect a person's actions (9). PLWHA's perception is their view of the stigma or societal views about HIV/AIDS, which can affect PLWHA's actions positively or negatively (12).

Stigma and discrimination are barriers to controlling HIV/AIDS infection (13). Stigma can be understood as prejudice that rejects individuals or groups due to differences from oneself or the majority (14). In AIDS, stigma refers to various forms of prejudice, discrimination, and humiliation directed toward people with HIV/AIDS and related communities, groups, or individuals. PLWHA feels humiliated and marginalized due to this stigma, making it difficult to connect with others and receive the medical treatment they need. Stigma continues to be a societal issue in preventing HIV/AIDS transmission (15). When communicating with or seeking consultation for PLWHA, treating them as usual and reasonably as anyone else is essential. Positive acceptance usually allows PLWHA to be open and willing to receive healthcare services (16).

Stigma and discrimination constitute complex problems in HIV/AIDS prevention and control. They occur not only from the general public's lack of understanding of HIV/AIDS but also among healthcare workers and educators, including students and university attendees. This is supported by research findings in a high school in the Senapelan Subdistrict of Pekanbaru City, which showed a significant correlation between knowledge, perception, and stigma toward PLWHA. Therefore, continuous education and raising awareness among healthcare workers, educators, and society are necessary to address the stigmatization and discrimination of PLWHA. By comprehending HIV/AIDS and reducing stigma, PLWHA can access better support and care, improving quality of life (14). Previous research based on the Indonesian Demographic and Health Survey (SDKI) data in 2012 only explored the link between knowledge of HIV/AIDS and stigma towards PLWHA without analyzing the correlation between perceptions and stigma towards PLWHA among adolescents (17). This study aims to complete previous research on the relationship between adolescents' perceptions of stigma towards people with HIV/AIDS in Indonesia.

METHODS

This research employs an observational analysis design with a cross-sectional method that allows for collecting data in a short period and at a low cost. Secondary data from the 2017 Indonesian Demographic and Health Survey, specifically the Adolescent Reproductive Health Component, are utilized in this study. The Data Health Adolescent Reproductive SDKI 2017 is a reliable and accurate data source depicting Indonesia's adolescent reproductive health situation. The analysis of this data will be conducted in this research to ascertain the relationships among several variables related to adolescent reproductive health in Indonesia. This study adheres to the ethical code documented in the Institutional Review Board (IRB) of the Demographic and Health Surveys (DHS). Additionally, the DHS country-specific survey protocols have been reviewed by the ICF IRB and usually by the host country's IRB. The ICF IRB ensures that the survey complies with the Department of Health and Human Services regulations for human subject protection (45 CFR 46). In contrast, the host country's IRB ensures the survey's compliance with national norms and laws.

The sample in this study consists of adolescents who do not have HIV/AIDS. The sampling method employed is total sampling with a total sample size of 14,276 respondents (unmarried males and females aged 15-24). However, due to missing data from 6 respondents, the final sample size for this study is 14,270 respondents. The study encompasses several variables, including the knowledge variable about HIV/AIDS, divided into four sections: HIV/AIDS, transmission, prevention, and Prevention of mother-to-child transmission (PMTCT). Knowledge is categorized into two groups: low knowledge and high knowledge. Knowledge is considered low when the correct answers from respondents score <8, and it is deemed high when respondents' answers score ≥8. The perception variable is categorized as negative perception and positive perception. Perception represents respondents' interpretation of PLWHA (People Living With HIV/AIDS) based on acquired knowledge. It is divided into two categories:

negative perception, when respondents cannot determine if someone is infected with HIV/AIDS through blood tests, and positive perception when respondents can answer how to determine if someone is infected with HIV/AIDS.

The stigma variable towards PLWHA signifies labelling PLWHA with negative attributes, thus viewing them as inferior to healthy individuals. This variable consists of two categories: stigma present and stigma absent. Respondents' answers <5 indicate a negative stigma towards PLWHA, while answers ≥5 indicate no negative stigma towards PLWHA. The indicators used to measure the stigma variable include societal rejection, confidentiality of HIV/AIDS status, and the perception of HIV/AIDS transmission within the community. To analyze the data obtained from the 2017 SDKI, univariate analysis is initially conducted by tabulating the frequency distribution of each variable. Subsequently, a bivariate analysis is performed by cross-tabulating the dependent variable, stigma, with the independent variables, knowledge and perception. This is expected to uncover correlations between knowledge and perception with stigma towards PLWHA.

RESULTS

The research results in Table 1 indicate that adolescents aged 15-24 years are primarily high school graduates, numbering 10,371 individuals (72.70%), and 7,298 individuals (51.10%) are male. Based on the respondents' residences, 8,323 individuals (58.30%) live in urban areas. Most respondents have yet to be exposed to information access information, totalling 9,379 individuals (65.70%).

Table 1 shows that adolescents' knowledge about HIV/AIDS falls into the category of low knowledge for 6,313 individuals (44.20%) and the category of high knowledge for 7,957 individuals (55.80%). The analysis of the variable about adolescents' perceptions of HIV/AIDS indicates that out of the total respondents, 12,300 individuals (86.20%) fall into the category of negative perception, while 1,970 individuals (13.80%) fall into the category of positive perception. Regarding the analysis of the variable concerning adolescents' stigma towards HIV/AIDS, from the total respondents, 7,053 individuals (49.40%) are categorized as having stigma, and 7,217 individuals (50.60%) are categorized as having no stigma.

Table 1

Frequency of Respondent Characteristics

Characteristics	Frequency n= 14,270	%
Age	14,270	100
Gender		
Man	7,298	51.10
Woman	6,972	48.90
Education		
Primary School	365	2.50
Junior High School	1,694	11.90
Senior High School	10,371	72.70
College	1,840	12.90
Residence		
Village	5,947	41.70
City	8,323	58.30
Access Information		
Not Exposed	9,379	65.70
Exposed	4,891	34.30
Knowledge		
Low	6,313	44.20
Tall	7,957	55.80
Perception		
Negative	12,300	86.20
Positive	1,970	13.80
Stigma		
Exist	7,053	49.40
None	7,217	50.60

The test of the relationship between adolescents' level of knowledge and stigma towards PLWHA is conducted using the chi-square test, yielding a p-value of 0.00 ($p<0.05$). This indicates a significant relationship between knowledge and stigma towards PLWHA. Similarly, using the chi-square test, the test of the relationship between adolescents' perception and stigma towards PLWHA yields a p-value of 0.00 ($p<0.05$), signifying a significant relationship between adolescents' perception and stigma towards PLWHA.

Table 2
Relationship Between Knowledge Level, Perception, and Stigma of PLHIV

Variable	Stigma				Total		p-value
	Stigma		No Stigma				
	n	%	n	%	n	%	
Knowledge							
Low	3,316	52.50	2,997	47.50	6,313	100	0.05
Tall	3,737	47.00	4,220	53.00	7,957	100	
Perception							
Negative	5,977	48.60	6,323	51.40	12,300	100	0.05
Positive	1,076	54.60	894	45.40	1,970	100	

DISCUSSION

HIV/AIDS is a global disease in both developed and developing countries that remains a challenge in its transmission prevention programs. Data indicates that HIV/AIDS is the second leading cause of death worldwide. According to the latest data, the provinces with the highest number of HIV cases in Indonesia are DKI Jakarta with 62,108 cases, followed by East Java with 51,990 cases, West Java with 36,853 cases, Papua with 34,473 cases, Central Java with 30,257 cases, and Bali with 20,356 cases. The number of AIDS cases in Indonesia from 1987 to June 2019 reached 117,064 (18). Adolescents are among the vulnerable groups due to their transitional phase, making them more prone to risky sexual behaviours (19). his has prompted the World Health Organization (WHO) to enhance universal knowledge among vulnerable groups, such as adolescents, to prevent HIV/AIDS transmission through sustainable development goals (2). This is the initial step in HIV/AIDS prevention programs and effective interventions, involving continuous information provision and evaluation to guide educational efforts and campaigns (20).

Knowledge is a driving factor in changing attitudes and behaviours (21). One's level of knowledge significantly influences decision-making, including attitudes and perceptions. According to behaviour theory, knowledge is a crucial factor affecting an individual's attitude and behaviour. Those with sufficient knowledge about a topic tend to have a positive attitude toward it and are more likely to adjust their behaviour accordingly. Therefore, improving knowledge about HIV/AIDS can stimulate positive attitudes and behaviour changes to prevent its spread. Low knowledge can lead to negative stigma, and the emergence of negative stigma towards PLWHA may stem from misconceptions resulting from incorrect information (22). Hence, providing comprehensive information about counselling, education, and HIV/AIDS awareness plays a pivotal role in reducing negative stigma among adolescents (23).

Higher levels of knowledge can help to reduce societal stigma against PLWHA. Misconceptions, such as believing that PLWHA can be transmitted through casual contact, may occur in people who have more knowledge but still hold a stigma. This can lead to PLWHA being shunned because of their perceived immoral behaviour and being associated with curses brought on by promiscuity. However, when the dominant factors causing disease transmission are considered, such behaviour and HIV/AIDS infection are unrelated (16).

Young adults with adequate HIV knowledge are more likely to know how to protect themselves and less likely to stigmatize those infected. A survey reveals a low tendency toward stigma among young adults with comprehensive HIV knowledge (3). Risky behaviours such as having multiple sexual partners without using condoms, experimenting with drugs, and alcohol consumption are related to knowledge of HIV status among HIV-negative people. However, risk perception is not a determinant of knowledge of HIV status. The impact of HIV on households is closely associated with knowledge of HIV status among those who are HIV positive but not among those who are HIV negative. Knowing someone living with or caring for someone with HIV and AIDS or who has died from AIDS is associated with knowledge of HIV status (24).

This study concludes that adolescents with higher levels of knowledge about HIV/AIDS tend to have lower levels of negative stigma toward PLWHA compared to those with lower knowledge levels. This indicates that knowledge can act as a determining factor in an individual's attitudes and

behaviours towards PLWHA. This aligns with the research on the relationship between knowledge levels and societal stigma towards PLWHA in Indonesia in 2020, which states a significant relationship (p-value = 0.00) between knowledge levels and stigma towards PLWHA. Similar results were also stated by Parut (25) , which showed a strong negative correlation (0.890) between knowledge and stigma towards PLWHA among students in Class XI of SMKN VI Surabaya, meaning that lower knowledge about HIV/AIDS correlates with higher stigma towards PLWHA. However, this contrasts with the findings of SImorangkir et al (26), which showed no significant relationship (p-value = 0.46) between knowledge and stigma. This might be due to the myths prevalent among adolescents, leading to a high negative stigma towards PLWHA.

Based on previous research using the 2012 Indonesian Demographic and Health Survey (SDKI) data, there is more knowledge among respondents with stigma than those without stigma (17). However, research using the 2017 SDKI data found that higher knowledge is more prevalent among respondents without stigma than those with stigma. Misunderstanding or lack of knowledge about HIV/AIDS impacts society's fear of PLHIV (People Living with HIV), leading to rejection of PLHIV (27). The research results indicate fewer respondents with negative perceptions than those without negative stigma. More than half of the respondents have negative perceptions compared to those with negative stigma, and less than half without negative stigma. It can be concluded that there is a significant relationship between adolescent perceptions and stigma towards people with HIV/AIDS. Although the research results show that more than half of the respondents have positive perceptions about HIV/AIDS, respondents are afraid to interact with PLHIV.

Perception can be defined as a process of recognizing objects/stimuli that begins with the senses. People's perceptions of something might differ due to mood, learning style, psychological state, and driving factors (28). According to Sudarsono & Suharsono (29), perception is an accumulation of sensory processes originating from stimuli transmitted to the brain and observed, forming the basis for action. In acquiring information, individuals have past experiences based on socio-cultural and clinical filters that influence their perceptions. In the process of sensory information related to past experiences, individuals use a filter of socio-cultural influence to view the world. Clinical influences also shape personal life experiences that affect perception. A study on students in China by Sun et al (30) explained that students' risk perception of HIV is relatively high, with most of them fearing getting infected with HIV. Risk behaviour data shows that only 60% of Chinese students use condoms during sexual activity, and knowledge data shows that few understand the transmission of HIV through drug use. This information indicates that students are an ideal group to start HIV education and prevention efforts. Involving Chinese men in the education and prevention process of HIV is crucial, and it is not too late to initiate HIV education efforts at the university level, especially in the early years when the risk behaviour is low for students aged 18 and 19. Ultimately, this prevention message can reach around 20 million young people attending colleges and universities in China.

CONCLUSION

The research outcomes establish a prominent correlation between the knowledge of adolescents and the stigma directed at people living with HIV/AIDS. Additionally, a noteworthy association exists between adolescents' perceptions and the stigma of people with HIV/AIDS. Improving adolescents' knowledge is essential in the effort to prevent the transmission of HIV/AIDS. Knowledge improvement can be achieved through education and a comprehensive approach to delivering health information that adolescents receive. Educational materials should be disseminated employing creativity and innovation. Selected variables in this study show that knowledge and perception are distinct traits. More excellent knowledge among respondents correlates with reduced HIV/AIDS stigma. Negative perceptions do not consistently lead to stigma towards individuals with HIV/AIDS.

CONFLICT OF INTEREST

The authors have stated that there are no conflicts of interest in the preparation of this paper.

AUTHOR CONTRIBUTION

YF: Conceptualization, Methodology, Software, Discussion Preparation, ESL: Results

and Discussion Writing, S: Background Writing and Editing.

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