## **BUKTI KORESPONDENSI**

## ARTIKEL JURNAL ILMIAH NASIONAL

Judul artikel : The effectiveness of videos and pocket books on the level of knowledge and attitudes

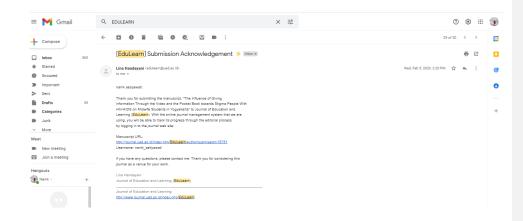
towards stigma people with HIV/AIDS

Jurnal : Journal of Education and Learning

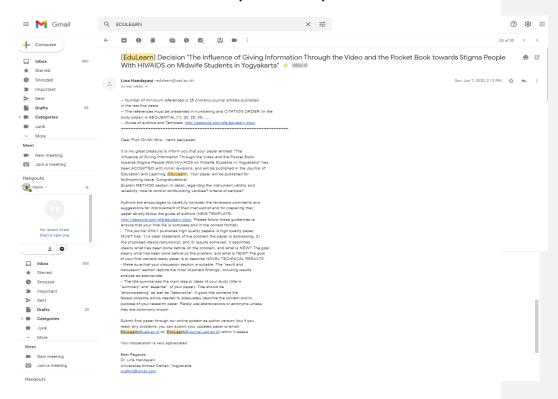
Penulis : Nanik Setiyawati, Niken Meilani

No	Perihal	Tanggal
1	Bukti konfirmasi submit artikel	5 Februari 2020
2	Bukti konfirmasi review dan hasil review pertama	7 Juni 2020
3	Bukti revisi hasil review pertama dan revisi artikel	24 Juni 2020
4	Bukti konfirmasi review dan hasil review kedua	31 Agustus 2020
5	Bukti konfirmasi hasil review ketiga dan bukti revisi hasil review ketiga	3 September 2020
6	Bukti konfirmasi Proofreading	12 Oktober 2020
7	Bukti Revisi Proofreading	22 Oktober 2020

# 1. BUKTI KUNFORMASI SUBMIT ARTIKEL (5 FEBRUARI 2020)



## 2. BUKTI KONFIRMASI REVIEW I (7 JUNI 2020)



## 3. BUKTI REVISI HASIL REVIEW PERTAMA DAN REVISI ARTIKEL (24 JUNI 2020)



## The Effectiveness of Videos and Pocket Books on the Level of Knowledge and Attitudes towards Stigma People With HIV/AIDS on Midwifery Students

## Nanik Setiyawati<sup>1</sup>, Niken Meilani<sup>2</sup>

<sup>1,2</sup> Midwifery Department, Poltekkes Kemenkes Yogyakarta

## **Article Info**

### Article history:

Received Jun 12, 201x

Revised Aug 20, 201x

Accepted Aug 26, 201x

## Keywords:

Stigma

Video

Pocket Book

Knowledge

Attitudes

## **ABSTRACT**

Cases of HIV/AIDS in middle and low income countries were very many. One of the biggest obstacles in the prevention of HIV/AIDS is the high stigma people with HIV/AIDS (PLWHA). There are still 34% of health students stigmatizing PLWHA. Appropriate learning media is needed to provide information about HIV/AIDS to midwifery students. The purpose was to determine the effect videos and pocket books on the knowledge, attitudes towards stigma of PLWHA. This research was a quantitative study with quasiexperimental non equivalent control group design. The intervention group was given information using video, the control group was given a pocket book. The number of samples is 100 respondents. Data analysis using t-test and simple linear regression. There is a relationship between the provision of videos and pocket books on the post test knowledge with p=0.002. There is an influence of giving video to attitude with p=0.022 OR 2.731. There was a relationship between the provision of videos and pocket books on the knowledge and attitudes of respondents. There was no relationship between the source of video information on the adequacy of material about HIV AIDS and the experience of meeting PLWHA with the level of knowledge and attitude of respondents.

This is an open access article under the CC BY-SA license.



## **Corresponding Author:**

Nanik Setiyawati,

Departement of Midwifery,

Poltekkes Kemenkes Yogyakarta,

Mangkuyudan MJ III/304 Yogyakarta, Indonesia

Email: nanikyogya@gmail.com

### 1. INTRODUCTION

HIV / AIDS cases in middle and low income countries were still very many and are the cause of death. It was estimated that in 2030, 21 million deaths have been caused by AIDS.  $^{[1]}$  The United Nations makes a global policy on preventive actions and reducing the burden caused by HIV / AIDS. Prevention actions against HIV / AIDS were: zero number of new patients for HIV, zero number of patients who died of AIDS and zero stigma and discrimination for HIV / AIDS patients. $^{[2]}$ 

Indonesia was a country with an increase in HIV cases in the 15-49 year age group, more than 25% (2001-2011).  $^{[1]}$  Based on data from the Indonesian Ministry of Health in December 2016, the number of new cases of HIV and AIDS in the past 4 years has increased, these data can be seen in the following table 1: $^{[3]}$ 

Table 1. Cases of HIV, AIDS and deaths due to HIV / AIDS in 2013-2017

YEAR	HIV	AIDS
2013	29.037	11.741
2014	32.711	7.963
2015	30.935	9.215
2016	41.250	10.146
2017	48.300	9.280

Source: DG & PL Ministry of Health in 2017

One major obstacle in the prevention and mitigation of Human Imunnodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV / AIDS) in Indonesia there was still a high level of stigma and discrimination against people with HIV / AIDS (PLWHA). Stigma comes from the mind of an individual or society who believes that AIDS was a result of immoral behavior that cannot be accepted by society. The stigma of PLWHA was reflected in cynical attitudes, excessive feelings of fear, and negative experiences with PLWHA. Many people think that people infected with HIV / AIDS deserve punishment for their own actions. They also assume that PLWHA was the person responsible for HIV / AIDS transmission. [4]

Stigma and discrimination experienced by people infected with HIV (*Human Immunodeficiency Virus*) can come from various community groups. Starting from the family environment, neighborhood, work environment, school, health workers and other community environments. Not only that, the health facilities where people are infected with HIV, in fact still often experience discrimination.<sup>[5]</sup>

Siti Urifah's research (2017) about stigma by health workers shows that the attitude of health workers towards HIV / AIDS patients still needs improvement, especially positive attitude towards HIV / AIDS patients. The attitude of stigma and discrimination against patients with HIV / AIDS can hinder prevention and treatment programs on HIV / AIDS. Correct knowledge about HIV transmission that must be possessed by health workers, therefore it was important to increase the knowledge of health workers. [6]

Yogyakarta Special Region (DIY) was one of the provinces in Indonesia that has entered an area that has experienced an increase in HIV / AIDS cases. The prevalence of HIV cases in DIY is 39.36, the province ranked 10th for the highest prevalence of HIV cases in Indonesia.<sup>[3]</sup> DIY has 13 institutions of midwifery education from university to academy.

Hesty W's research (2015) on the factors influencing the stigma of Yogyakarta Health Ministry Poltekkes students towards PLWHA stated that 36.3% of midwifery students gave a negative stigma to PLWHA. If the results of this study note that the perception of PLWHA is a variable that affects the stigma of students towards PLWHA. Other studies conducted by Imam Muksin, Rizal (2014), Febrianti (2016), and Li Xin (2017) stated that variables related to stigma came from personal, one of which is knowledge, [7][8][9] therefore needed a learning media approach that not only influences knowledge but also changes in perceptions and values that can minimize the stigma of students towards PLWHA. Research conducted by Ima (2012) about the ODHA Stigma by STIKES students in the Yogyakarta city results shows that respondents obtained sources of information about HIV / AIDS from teachers as much as 89% so it was very appropriate if teachers can provide material about HIV as best they can. [10]

Risbinakes Research Previously about the factors that influence the behavior of midwives towards PMTCT in Yogyakarta the results obtained that the availability of information about HIV / AIDS through lectures, respondents stated obtaining information about HIV during lectures as much as 72.5% while there was no continuation of information about HIV / AIDS at work which is only 5% means that the majority of midwives get information about HIV / AIDS through lectures and only 5% say they get information through socialization after work, it can be concluded that information about HIV after graduation was very minimal and therefore needs to optimize the provision of information through lectures by developing methods so that students were able to absorb information as possible.

Health education can be done by various methods and media such as films, drama videos, story books, leaflets, posters and lectures.[11] Pocket books and videos were learning media that can be easily captured by students. Based on the data above, the researcher intends to examine the effect of video and book media on the level of knowledge, attitudes and stigma of PLWHA on midwifery students in Yogyakarta.<sup>[6]</sup>

## RESEARCH METHOD

This research is quasi experiment nonequivalent with control group design. The samples in this study were 100 students who were divided into two groups: 50 students in the experimental / video group and 50 students in the control group / pocket book. This research was conducted from May to July 2018 at GadjahMada University and Yogyakarta Health Polytechnic. Validity test was carried out at Respati University, Yogyakarta. The independent variable in this study was the provision of information through video and the provision of information from a pocket book. The dependent variable in this study was the level of knowledge about HIV / AIDS, attitudes towards PLWHA and stigma towards PLWHA. To control confounding variables is to use the same respondent characteristics between the two groups, the third level midwifery student from institution with the same institusional accreditation and willing to participate fully in research activities. The inclusion criteria are the third level midwifery undergraduated students who had learned about HIV/AIDS, had clinical pravtice and were willing. The instrument in this study was a questionnaire to measure the level of knowledge before and after getting treatment that has been tested for validity and reliability on 30 respondents. Video and pocket book validation are done by expert of material and testing in advance so that media used is valid.

### 2. RESULTS AND ANALYSIS

Table 1. Distribution of Frequency of Respondents by Age, Sources of Information, Experiences of PLWHA, HIV / AIDS Material, and Adequacy of Material obtained

Variables	Video		Pocket book	
	N	%	N	%
Source of Information				
4 sources	30	60	45	90
> 4 sources	20	40	5	10
Experiences meeting PLWHA				
No	2	6	0	0
Yes	47	94	50	100
Adequacy of information about HIV/AIDS				
Less	37	74.0	37	74.0
Sufficient	13	26.0	13	26.0

Based on table 1, the characteristics of the subjects in the experimental / video group were mostly 22 years old (70%). The sources of information asked were television, newspapers, parents, health workers, lecturers and other sources where most of the two research groups had sources of information ≤4 sources of information. Most of the subjects felt that the material obtained was still lacking at 37 (74.0%). Most respondents have had experience meeting PLWHA, but in the experimental group not all subjects had experience meeting PLWHA.

Table 2. Frequency distribution of Knowledge Levels and Attitudes of pre and post test in each research group

Variables	Vid	ео	Pocke	t Book
	N	%	N	%
Level of Knowledge Pre test				
Less	11	22	6	12
Sufficient	21	42	15	30
Good	18	36	29	58
Level of Knowledge Post Test				
Less	4	8	1	2
Sufficient	33	66	19	38
Good	13	26	30	60
Pre Test of Attitude				
Negative	34	68	26	52
Positive	16	32	24	48
Post test of Attitude				
Negative	31	62	18	36
Positive	19	38	32	64

In Table 2 it was known that pre and post knowledge The test has an increase in the pre-post proportion of the level of knowledge lacking in the group treated a number of 11 respondents and

decreased to 4 respondents or by 8% in the post test. Likewise for the control group where the category of less than 11 respondents became 1 respondent only. Almost the same proportion is also on the attitude variable, where the proportion of negative attitudes in the pretest group treated as many as 34 respondents decreased to 31 in the post test. Likewise for the control group where in the pre test there were 52 negative attitudes and decreased to 36 respondents in the post test.

Table 3. Tabulation of variables related to post test knowledge level

Variables			Lev	vel of Kn	owled	ge	
	P	oor	Sufficient		Good		р
	N	%	N	%	N	%	
Research Group							
Video	4	8	33	66	13	26	0.002 *
Pocket book	1	2	19	38	30	60	
Total	5	5	52	52	43	43	
Sourcesof Information							
4 sources	4	5.3	37	49.3	34	45.3	0.650 *
> 4 sources	1	4	15	60	9	36	
Total	5	5	52	52	43	43	
Adequacy of Information about HIV	AIDS						
Less	3	4.1	36	48.6	35	47.3	0.306 *
Sufficient	2	7.7	16	61.5	8	30.8	
Total	5	5	52	52	43	43	
Experience meeting PLWHA							
No	0	0	2	66.7	1	33.3	0.781 *
Yes	5	5.2	50	51.5	42	43.3	
Total	5	5	52	52	43	43	

In table 3 it was known that the provision of pocket books and videos is proven to be related to the level of knowledge of respondents about HIV AIDS with a value of p = 0.002. Other independent variables are not related to knowledge level. Due to p = 0.002, multivariate analysis is not performed.

Table 4. Tabulation of variables related to post test

Variables	Attitudes				
	Negative		Positive		р
	N	%	N	%	
Research Group					
Video	31	62	19	38	0.009
Handbook	18	36	32	64	
Total	49	49	51	51	
Information Sources					
4 sources	34	45.3	41	54.7	0.204
> 4 sources	15	60	10	40	
Total	49	49	51	51	
Adequacy of Information about HIV AIDS					
Less	38	51.4	36	48.6	0.427
Sufficient	11	42.3	15	57.7	

Total	49	49	51	51	
Experience meeting PLHA					
No	2	66.7	1	33.3	0.972
Yes	47	48.5	50	51.5	
Total	49	49	51	51	

In table 4 it is known that the provision of pocket books and videos has been shown to be related to respondents' attitudes about HIV AIDS with a p value of 0.009. Further analysis was carried out on variables which had a p value <0.25.

Table 5. Multivariate factor analysis related to attitudes about HIV AIDS

·	Sig.	Exp (B)	95.0% CIFOR EXP (B)	
Variable			Lower	Upper
Provision of video	.022	2731	1155	6456
Level of resources<4	.684	.813	.300	2203

In Table 5 note that the video shown to affect the positive attitude by 2.7 times compared to the books pocket.

Acquired Immune Deficiency Syndrome (AIDS) was a collection of symptoms of a disease caused by the Human Immunodeficiency Virus (HIV). The HIV virus can damage the human immune system and cause a decrease in the immune system so that it is easily infected with infectious diseases. [9][10] HIV and AIDS can be transmitted through 3 routes namely sexual intercourse, and transmission from mother to fetus.[11][12] Stigma was all unpleasant attitudes, beliefs and rules directed at people who have HIV / AIDS and on partners, family, close relatives and the environment by demeaning, harassing, humiliating, and isolating these people from people other. Research by Santos, Monika et al (2014), Makadia (2018) and Hati K (2017) show that PLWHA experience significant levels of stigma and discrimination that negatively impact their health, work and family life, and their access to health services. [13],[14],[15] Stigma against PLWHA was the biggest obstacle in HIV / AIDS prevention and control.

Research conducted by Agus, Niken (2016) which states that students have a stigma against PLWHA and it was known that there is an influence of information exposure to stigma besides students who are not exposed to information related to HIV & AIDS risk of 2.21 times greater for stigma against PLWHA.[16] Research conducted by Alawad M et al (2019), Tang W et al (2016) and Kingori C et al (2017) shows a significant relationship between health students' knowledge of the stigma given to PLWHA.[17],[18],[19] The health student's knowledge of HIV / AIDS will greatly influence how the individual will behave towards people with HIV or AIDS sufferers. Herek et al's research states that stigma and discrimination against PLWHA appear to be related to ignorance about the mechanism of HIV transmission, the estimated risk of contracting excessively through casual contact and negative attitudes towards disproportionate social groups affected by the HIV / AIDS epidemic.[4] Research conducted by Winnie Shao et al (2016) shows that HIV / AIDS videos can be effective in conveying information to adolescents and that videos can increase knowledge about HIV / AIDS.[20] Basically, knowledge can influence one's stigma towards people with HIV / AIDS. This study was in line with research conducted by Tarigan, EkaRistin (2016) and Storey,

et al (2014) which states that there was a significant effect of health education with video media on knowledge and attitudes about HIV AIDS. [21],[22]

Attitude was the readiness to react to objects in certain environments as an appreciation of objects. The attitude includes likes, dislikes, approaches, avoids situations, objects, groups, in this case is against PLWHA. The results of this study are not in line with the research of IkaDwiYanti et al (2015) which states that health education using audiovisual media influences adolescent attitudes. Attitudes can influence a person's stigma towards people with HIV / AIDS. The results of this study indicate that the source of a pocket book information affects the attitudes of respondents. This was in line with research conducted by BetiSusilowati (2017) which states that the attitude of students who get information sources from print media is higher.<sup>[5]</sup>

Negative attitude towards PLWHA is still a shared responsibility to stop it, especially in health workers. Alwafi et all who stated more than 40% suggested that HIV positive people should be isolated <sup>[23]</sup> Simmilar wth Alawad's research stated 73.1% of the participants indicated that they would not provide care to HIV-positive relatives in their own homes. <sup>[17]</sup> Different from this article that showed 49% respondent who have a negative attitude. Providers with limited recent HIV-stigma training were more likely to exhibit stigmatizing behaviors toward patients. Developing provider-centered stigma-reduction interventions may help advance national HIV prevention and care goals. <sup>[24]</sup> Lower levels of HIV/AIDS knowledge were associated with higher levels of stigmatizing attitudes towards people living with HIV/AIDS. Stigmatizing attitudes, including discrimination at work, fear of AIDS, and prejudice, were lower in healthcare workers with more experience in treating HIV/AIDS patients. <sup>[25]</sup>

#### 3. CONCLUSION

Respondent characteristics based on information sources, experience of meeting PLHIV, experience getting material about HIV / AIDS in the experimental / video group and the control group / pocket book there was no difference so that the experimental / video group and the control group / pocket book are comparable. There was a relationship between the provision of information through videos and pocket books on the level of knowledge of respondents. There was an effect of providing information through video on the attitude of respondents. There was no relationship between the source of information, the adequacy of the material and the experience of PLHIV in the two study groups.

## ACKNOWLEDGEMENTS

We would like to thank the midwifery students and research assistants who participated in this study. The study was funded by Health Polytechnic Ministry of Health Yogyakarta, Indonesia

#### REFERENCES

- [1] B. Pam, "Patterns of HIV and AIDS in different contexts," Netherland, Royal Trop. Inst., 2016.
- [2] UNAIDS, "Getting to zero: 2011-2015 Strategies," Bangkok: Unitied, 2010.
- [3] RI Ministry of Health, "Statistics on Cases of HIV / AIDS din Indonesia," *DG PPM PL Minist. Heal. Repub. Indones.*, 2016.
- [4] 2013 John R.Giudicessi BA.Michael J.Ackerman., "A comparison of HIV stigma and discrimination in five international sites: The influence of care and treatment resources in high prevalence settings," *Bone*, vol. 23, no. 1, pp. 1–7, 2009.
- [5] S. Urifah, "Pengetahuan dan stigma terhadap pasien HIV/AIDS di lingkungan kesehatan, Indonesia," *Indones. J. Heal. Sci.*, vol. 8, no. 2, pp. 199–207, 2017.
- [6] H. Widyasih, "Stigma PLWHA at Yogyakarta Health Polytechnic Students," J. Heal. Technol., vol. Vol 11.
- [7] B. Widjanarko, Z. Shaluhiyan, and R. Muksin, "Faktor-faktor yang Berhubungan dengan Stigma Guru terhadap Anak HIV Positif (Studi pada Guru di Sekolah Mitra Pkbi Daerah Jawa Tengah dalam Implementasi Pendidikan Kesehatan Reproduksi dan Seksual)," *J. Kesehat. Masy. Univ. Diponegoro*, vol. 3, no. 2, p. 18473, 2015.
- [8] F. Maharani, "Faktor -Faktor Yang Berhubungan Dengan Stigma Terhadap Orang Dengan Hiv Dan Aids (Odha)," *J. Endur.*, vol. 2, no. 2, p. 158, 2017.
- [9] X. Li et al., "Factors associated with stigma attitude towards people living with HIV among general individuals in Heilongjiang, Northeast China," BMC Infect. Dis., vol. 17, no. 1, pp. 1–6, 2017.
- [10] Daryanto, Learning Media, Consciebce. Bandung, 2011.
- [11] N. and Maramis, Konseling, Dukungan, Perawatan, Dukungan dan Pengobatan (ODHA), Airlangga. Surabaya, 2007.
- [12] Nasronuddin, HIV & AIDS Molecular, Clinical and Social Biological Approach, Airlangga. Surabaya, 2007.
- [13] M. M. L. Dos Santos, P. Kruger, S. E. Mellors, G. Wolvaardt, and E. Van Der Ryst, "An exploratory survey measuring stigma and discrimination experienced by people living with HIV/AIDS in South Africa: The People Living with HIV Stigma Index From South Africa," *BMC Public Health*, vol. 14, no. 1, pp. 7–10, 2014.
- [14] P. R. P. Khushbu D Makadia1, "An Exploratory Survey Measuring Stigma and Discrimination Experienced By People Living With HIV/AIDS," Natl. J. Community Med., vol. Volume 9, no. 9, 2018.
- [15] Z. S. A. S. Konstantinus Hati\*), "Community Stigma Agaist PLWHA In Kupang City, NTT Province (Stigma Masyarakat Terhadap ODHA Di Kota Kupang Provinsi NTT)," J. Teknol., vol. 1, no. 1, pp.

69-73, 2013.

- [16] N. A. Tianingrum, "Pengaruh Keterpaparan Informasi Terhadap Stigma HIV AIDS Pada Pelajar SMA," J. Ilmu Kesehat., vol. 6, no. 9, pp. 1689–1699, 2018.
- [17] M. Alawad, A. Alturki, A. Aldoghayyim, A. Alrobaee, and M. Alsoghair, "Knowledge, Attitudes, and Beliefs about HIV/AIDS and People Living with HIV among Medical Students at Qassim University in Saudi Arabia.," Int. J. Health Sci. (Qassim)., vol. 13, no. 5, pp. 22–30, 2019.
- [18] W. Tang et al., "HIV/AIDs-related stigma among medical students in Beijing, China," Int. J. Clin. Exp. Med., vol. 9, no. 5, pp. 8743–8748, 2016.
- [19] C. Kingori, M. Adwoa Nkansah, Z. Haile, K.-A. Darlington, and T. Basta, "Factors Associated with HIV Related Stigma among College Students in the Midwest," AIMS Public Heal., vol. 4, no. 4, pp. 347–363, 2017.
- [20] W. Shao, W. Guan, M. A. Clark, T. Liu, and et al, "Does a Video Improve of HIV/AIDS and HIV Testing among a Global Internet Audience?," J Int Assoc Provid AIDS Care, vol. 15, no. 5, pp. 392–399, 2016.
- [21] E. R. Tarigan, "Efektivitas Promosi Kesehatan dengan Media Leaflet dan Media Video terhadap Pengetahuan dan Sikap Remaja tentang HIV/AIDS di SMA Negeri 1 Berastagi Tahun 2016," Repos. Institusi USU, 2016.
- [22] D. Storey, K. Seifert-Ahanda, A. Andaluz, B. Tsoi, J. M. Matsuki, and B. Cutler, "What is health communication and how does it affect the HIV/AIDS continuum of care? A brief primer and case study from New York City," J. Acquir. Immune Defic. Syndr., vol. 66, no. SUPPL.3, pp. 241–249, 2014. https://pubmed.ncbi.nlm.nih.gov/25007193/
- [23] H. A. Alwafi et al., "Knowledge and attitudes toward HIV/AIDS among the general population of Jeddah, Saudi Arabia," J. Infect. Public Health, vol. 11, no. 1, pp. 80–84, 2018. https://pubmed.ncbi.nlm.nih.gov/28579268/
- [24] M. Geter Angelica, DrPH, "HIV-Related Stigma by Healthcare Providers in the United States: A Systematic Review," Physiol. Behav., vol. 176, no. 1, pp. 139–148, 2016. https://pubmed.ncbi.nlm.nih.gov/28183300/
- [25] S. Vorasane et al., "An investigation of stigmatizing attitudes towards people living with HIV/AIDS by doctors and nurses in Vientiane, Lao PDR," BMC Health Serv. Res., vol. 17, no. 1, pp. 1–13, 2017. https://pubmed.ncbi.nlm.nih.gov/28183300/

## BIOGRAPHIES OF AUTHORS (10 PT)

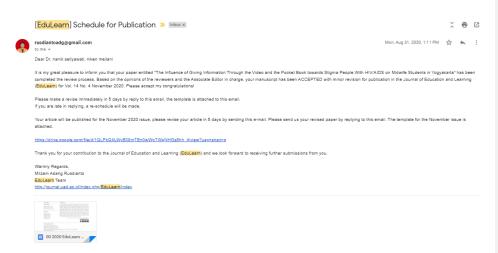


Nanik Setiyawati is a midwife and lecturer at Midwifery Department Poltekkes Kemenkes Yogyakarta, Indonesia. Basic educational is Magister Health Promotion Diponegoro University Semarang Indonesia, concentration of health reproductive and HIV/AIDS. Focus of the research and study about Reproductive Health Care.

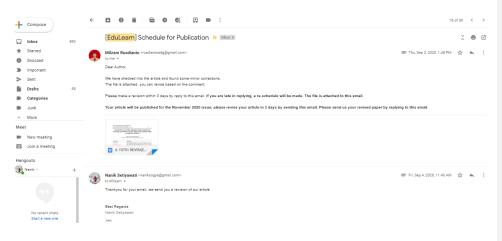


Niken Meilani, is a lecturer at Midwifery Department Poltekkes Kemenkes Yogyakarta. Graduate Master Program Health Promotion, Diponegoro University Semarang and shortcourse program Reproductive Health Care Royal Tropic Intsitute/ KIT Amsterdam Netherlands. Focus of the research and study about Reproductive Health Care including HIV AIDS among adolescent and women.

## 4. BUKTI KONFIRMASI REVIEW KEDUA (31 AGUSTUS 2020)



## BUKTI KONFIRMASI REVIEW KETIGA (3 SEPTEMBER 2020) DAN PENGIRIMAN REVISI KETIGA (4 SEPTEMBER 2020)



# The effectiveness of videos and pocket books on the level of knowledge and attitudes towards stigma people with HIV/AIDS on midwifery students

#### Nanik Setiyawati, Niken Meilani

Midwifery Department, Poltekkes Kemenkes Yogyakarta, Indonesia

## **Article Info**

## Article history:

Received Jun 12, 201x Revised Aug 20, 201x Accepted Aug 26, 201x

### Keywords:

Stigma Video Pocket Book Knowledge Attitudes

## ABSTRACT

Cases of HIV/AIDS in middle and low income countries were very many. One of the biggest obstacles in the prevention of HIV/AIDS is the high stigma people with HIV/AIDS (PLWHA). There are still 34% of health students stigmatizing PLWHA. Appropriate learning media is needed to provide information about HIV/AIDS to midwifery students. The purpose was to determine the effect videos and pocket books on the knowledge, attitudes towards stigma of PLWHA. This research was a quantitative study with quasiexperimental non equivalent control group design. The intervention group was given information using video, the control group was given a pocket book. The number of samples is 100 respondents. Data analysis using t-test and simple linear regression. There is a relationship between the provision of videos and pocket books on the post test knowledge with p=0.002. There is an influence of giving video to attitude with p=0.022 OR 2.731. There was a relationship between the provision of videos and pocket books on the knowledge and attitudes of respondents. There was no relationship between the source of video information on the adequacy of material about HIV AIDS and the experience of meeting PLWHA with the level of knowledge and attitude of respondents.

This is an open access article under the CC BY-SA license.



## Corresponding Author:

Nanik Setiyawati, Departement of Midwifery, Poltekkes Kemenkes Yogyakarta, Mangkuyudan MJ III/304 Yogyakarta, Indonesia Email: nanikyogya@gmail.com

## INTRODUCTION

HIV/AIDS cases in middle and low income countries were still very many and are the cause of death. It was estimated that in 2030, 21 million deaths have been caused by AIDS.[1] The United Nations makes a global policy on preventive actions and reducing the burden caused by HIV/AIDS. Prevention

actions against HIV/AIDS were: zero number of new patients for HIV, zero number of patients who died of AIDS and zero stigma and discrimination for HIV/AIDS patients [2].

Indonesia was a country with an increase in HIV cases in the 15-49 year age group, more than 25% (2001-2011) [1]. Based on data from the Indonesian Ministry of Health in December 2016, the number of new cases of HIV and AIDS in the past 4 years has increased, these data can be seen in the following Table 1 [3].

Table 1. Cases of HIV, AIDS and deaths due to HIV/AIDS in 2013-2017

YEAR	HIV	AIDS
2013	29.037	11.741
2014	32.711	7.963
2015	30.935	9.215
2016	41.250	10.146
2017	48.300	9.280

Source: DG & PL Ministry of Health in 2017

One major obstacle in the prevention and mitigation of Human Imunnodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) in Indonesia there was still a high level of stigma and discrimination against people with HIV/AIDS (PLWHA). Stigma comes from the mind of an individual or society who believes that AIDS was a result of immoral behavior that cannot be accepted by society. The stigma of PLWHA was reflected in cynical attitudes, excessive feelings of fear, and negative experiences with PLWHA. Many people think that people infected with HIV/AIDS deserve punishment for their own actions. They also assume that PLWHA was the person responsible for HIV/AIDS transmission [4].

Stigma and discrimination experienced by people infected with HIV (Human Immunodeficiency Virus) can come from various community groups. Starting from the family environment, neighborhood, work environment, school, health workers and other community environments. Not only that, the health facilities where people are infected with HIV, in fact still often experience Discrimination [5].

Siti Urifah's research about stigma by health workers shows that the attitude of health workers towards HIV/AIDS patients still needs improvement, especially positive attitude towards HIV / AIDS patients. The attitude of stigma and discrimination against patients with HIV / AIDS can hinder prevention and treatment programs on HIV/AIDS. Correct knowledge about HIV transmission that must be possessed by health workers, therefore it was important to increase the knowledge of health workers [6]. Yogyakarta Special Region (DIY) was one of the provinces in Indonesia that has entered an area that has experienced an increase in HIV/AIDS cases. The prevalence of HIV cases in DIY is 39.36, the province ranked 10th for the highest prevalence of HIV cases in Indonesia [3]. DIY has 13 institutions of midwifery education from university to academy.

Hesty W's research on the factors influencing the stigma of Yogyakarta Health Ministry Poltekkes students towards PLWHA stated that 36.3% of midwifery students gave a negative stigma to PLWHA [6]. The results of this study note that the perception of PLWHA is a variable that affects the stigma of students

towards PLWHA. Other studies conducted by Imam Muksin, Rizal, Febrianti, and Li Xin stated that variables related to stigma came from personal, one of which is knowledge [7-9], therefore needed a learning media approach that not only influences knowledge but also changes in perceptions and values that can minimize the stigma of students towards PLWHA. Research conducted by Ima about the ODHA Stigma by STIKES students in the Yogyakarta city results shows that respondents obtained sources of information about HIV/AIDS from teachers as much as 89% so it was very appropriate if teachers can provide material about HIV as best they can [10].

Risbinakes Research Previously about the factors that influence the behavior of midwives towards PMTCT in Yogyakarta the results obtained that the availability of information about HIV/AIDS through lectures, respondents stated obtaining information about HIV during lectures as much as 72.5% while there was no continuation of information about HIV/AIDS at work which is only 5% means that the majority of midwives get information about HIV/AIDS through lectures and only 5% say they get information through socialization after work, it can be concluded that information about HIV after graduation was very minimal and therefore needs to optimize the provision of information through lectures by developing methods so that students were able to absorb information as possible.

Health education can be done by various methods and media such as films, drama videos, story books, leaflets, posters and lectures [11]. Pocket books and videos were learning media that can be easily captured by students. Based on the data above, the researcher intends to examine the effect of video and book media on the level of knowledge, attitudes and stigma of PLWHA on midwifery students in Yogyakarta [6].

#### RESEARCH METHOD

This research is quasi experiment nonequivalent with control group design. The samples in this study were 100 students who were divided into two groups: 50 students in the experimental/video group and 50 students in the control group/pocket book. This research was conducted from May to July 2018 at GadjahMada University and Yogyakarta Health Polytechnic. Validity test was carried out at Respati University, Yogyakarta. The independent variable in this study was the provision of information through video and the provision of information from a pocket book. The dependent variable in this study was the level of knowledge about HIV/AIDS, attitudes towards PLWHA and stigma towards PLWHA. To control confounding variables is to use the same respondent characteristics between the two groups, the third level midwifery student from institution with the same institusional accreditation and willing to participate fully in research activities. The inclusion criteria are the third level midwifery undergraduated students who had learned about HIV/AIDS, had clinical pravtice and were willing. The instrument in this study was a questionnaire to measure the level of knowledge before and after getting treatment that has been tested for validity and reliability on 30 respondents. Video and pocket book validation are done by expert of material and testing in advance so that media used is valid.

#### **RESULTS AND ANALYSIS**

Based on Table 1, the characteristics of the subjects in the experimental / video group were mostly 22 years old (70%). The sources of information asked were television, newspapers, parents, health workers, lecturers and other sources where most of the two research groups had sources of information <a href="Most of the subjects">4</a> sources of information. Most of the subjects felt that the material obtained was still lacking at 37 (74.0%). Most respondents have had experience meeting PLWHA, but in the experimental group not all subjects had experience meeting PLWHA.

In Table 2 it was known that pre and post knowledge The test has an increase in the pre-post proportion of the level of knowledge lacking in the group treated a number of 11 respondents and decreased to 4 respondents or by 8% in the post test. Likewise for the control group where the category of less than 11 respondents became 1 respondent only. Almost the same proportion is also on the attitude variable, where the proportion of negative attitudes in the pretest group treated as many as 34 respondents decreased to 31 in the post test. Likewise for the control group where in the pre test there were 52 negative attitudes and decreased to 36 respondents in the post test.

Table 1. Distribution of Frequency of Respondents by Age, Sources of Information, Experiences of PLWHA, HIV/AIDS Material, and Adequacy of Material obtained

Variables	Vide	90	Pock	et book
	N	%	N	%
Source of Information				
4 sources	30	60	45	90
> 4 sources	20	40	5	10
Experiences meeting PLWHA				
No	2	6	0	0
Yes	47	94	50	100
Adequacy of information about HIV/AIDS				
Less	37	74.0	37	74.0
Sufficient	13	26.0	13	26.0

Table 2. Frequency distribution of Knowledge Levels and Attitudes of pre and post test in each research group

Variables	Vic	leo	Pocke	t Book
	Ν	%	N	%
Level of Knowledge Pre test				
Less	11	22	6	12
Sufficient	21	42	15	30
Good	18	36	29	58
Level of Knowledge Post Test				
Less	4	8	1	2
Sufficient	33	66	19	38
Good	13	26	30	60
Pre Test of Attitude				
Negative	34	68	26	52
Positive	16	32	24	48
Post test of Attitude				
Negative	31	62	18	36
Positive	19	38	32	64

In Table 3 it was known that the provision of pocket books and videos is proven to be related to the level of knowledge of respondents about HIV AIDS with a value of p=0.002. Other independent variables are not related to knowledge level. Due to p other variables> 0.25, multivariate analysis is not performed. In Table 4 it is known that the provision of pocket books and videos has been shown to be related to respondents' attitudes about HIV AIDS with a p value of 0.009. Further analysis was carried out on variables which had a p value <0.25. In Table 5 note that the video shown to affect the positive attitude by 2.7 times compared to the books pocket.

Table 3. Tabulation of variables related to post test knowledge level

Variables	Level of Knowledge						
	Poo	Poor		Sufficient		d	p
	N	%	N	%	N	%	
Research Group							
Video	4	8	33	66	13	26	0.002 *
Pocket book	1	2	19	38	30	60	
Total	5	5	52	52	43	43	
Sourcesof Information							
< 4 sources	4	5.3	37	49.3	34	45.3	0.650 *
> 4 sources	1	4	15	60	9	36	
Total	5	5	52	52	43	43	
Adequacy of Information	on abo	out HIV	/ AIDS				
Less	3	4.1	36	48.6	35	47.3	0.306 *
Sufficient	2	7.7	16	61.5	8	30.8	
Total	5	5	52	52	43	43	
Experience meeting PLWHA							
No	0	0	2	66.7	1	33.3	0.781 *
Yes	5	5.2	50	51.5	42	43.3	
Total	5	5	52	52	43	43	

Table 4. Tabulation of variables related to post test

Variables		Attitudes			
	Neg	Negative		tive	р
	N	%	N	%	
Research Group					
Video	31	62	19	38	0.009
Handbook	18	36	32	64	
Total	49	49	51	51	
Information Source	es				
< 4 sources	34	45.3	41	54.7	0.204
> 4 sources	15	60	10	40	
Total	49	49	51	51	
Adequacy of Inform	nation ab	out HIV	AIDS		
Less	38	51.4	36	48.6	0.427
Sufficient	11	42.3	15	57.7	
Total	49	49	51	51	
Experience meetin	g PLHA				
No	2	66.7	1	33.3	0.972
Yes	47	48.5	50	51.5	
Total	49	49	51	51	

Table 5. Multivariate factor analysis related to attitudes about HIV AIDS

	Sig.	Exp (B)	95.0% CIF	OR EXP (B)
Variable			Lower	Upper
Provision of video	.022	2731	1155	6456
Level of resources<4	.684	.813	.300	2203

Acquired Immune Deficiency Syndrome (AIDS) was a collection of symptoms of a disease caused by the Human Immunodeficiency Virus (HIV). The HIV virus can damage the human immune system and cause a decrease in the immune system so that it is easily infected with infectious diseases [9, 10]. HIV and AIDS can be transmitted through 3 routes namely sexual intercourse, and transmission from mother to fetus [11, 12]. Stigma was all unpleasant attitudes, beliefs and rules directed at people who

have HIV/AIDS and on partners, family, close relatives and the environment by demeaning, harassing, humiliating, and isolating these people from people other. Research by Santos, Monika et al, Makadia and Hati K show that PLWHA experience significant levels of stigma and discrimination that negatively impact their health, work and family life, and their access to health services [13-15]. Stigma against PLWHA was the biggest obstacle in HIV/AIDS prevention and control.

Research conducted by Agus, Niken which states that students have a stigma against PLWHA and it was known that there is an influence of information exposure to stigma besides students who are not exposed to information related to HIV & AIDS risk of 2.21 times greater for stigma against PLWHA [16]. Research conducted by Alawad M et al, Tang W et al and Kingori C et al shows a significant relationship between health students' knowledge of the stigma given to PLWHA [17-19]. The health student's knowledge of HIV/AIDS will greatly influence how the individual will behave towards people with HIV or AIDS sufferers. Herek et al's research states that stigma and discrimination against PLWHA appear to be related to ignorance about the mechanism of HIV transmission, the estimated risk of contracting excessively through casual contact and negative attitudes towards disproportionate social groups affected by the HIV/AIDS epidemic [4]. Research conducted by Winnie Shao et al shows that HIV/AIDS videos can be effective in conveying information to adolescents and that videos can increase knowledge about HIV/AIDS[20]. Basically, knowledge can influence one's stigma towards people with HIV/AIDS. This study was in line with research conducted by Tarigan, EkaRistin and Storey, et al which states that there was a significant effect of health education with video media on knowledge and attitudes about HIV AIDS [21, 22].

Attitude was the readiness to react to objects in certain environments as an appreciation of objects. The attitude includes likes, dislikes, approaches, avoids situations, objects, groups, in this case is against PLWHA. The results of this study are not in line with the research of Ika Dwi Yanti et al which states that health education using audiovisual media influences adolescent attitudes. Attitudes can influence a person's stigma towards people with HIV/AIDS. The results of this study indicate that the source of a pocket book information affects the attitudes of respondents. This was in line with research conducted by Beti Susilowati which states that the attitude of students who get information sources from print media is higher [5].

Negative attitude towards PLWHA is still a shared responsibility to stop it, especially in health workers. Alwafi et all who stated more than 40% suggested that HIV positive people should be isolated [23]. Simmilar wth Alawad's research stated 73.1% of the participants indicated that they would not provide care to HIV-positive relatives in their own homes [17]. Different from this article that showed 49% respondent who have a negative attitude. Providers with limited recent HIV-stigma training were more likely to exhibit stigmatizing behaviors toward patients. Developing provider-centered stigma-reduction interventions may help advance national HIV prevention and care goals [24]. Lower levels of HIV/AIDS knowledge were associated with higher levels of stigmatizing attitudes towards people living with HIV/AIDS. Stigmatizing attitudes, including discrimination at work, fear of AIDS, and prejudice, were lower in healthcare workers with more experience in treating HIV/AIDS patients [25].

## CONCLUSION

Respondent characteristics based on information sources, experience of meeting PLHIV, experience getting material about HIV/AIDS in the experimenta/video group and the control group/pocket book there was no difference so that the experimental/video group and the control group/pocket book are

comparable. There was a relationship between the provision of information through videos and pocket books on the level of knowledge of respondents. There was an effect of providing information through video on the attitude of respondents. There was no relationship between the source of information, the adequacy of the material and the experience of PLHIV in the two study groups.

#### ACKNOWLEDGEMENTS

We would like to thank the midwifery students and research assistants who participated in this study. The study was funded by Health Polytechnic Ministry of Health Yogyakarta, Indonesia

#### REFERENCES

- B. Pam, Patterns of HIV and AIDS in different contexts, Netherland: Royal Trop. Inst., 2016.
- [2] UNAIDS, Getting to zero: 2011-2015 strategies, Bangkok: Unitied, 2010.
- RI Ministry of Health, "Statistics on Cases of HIV / AIDS in Indonesia," DG PPM PL Minist. Heal. Repub. Indones., 2016.
- [4] Maman, Suzanne, et al, "A comparison of HIV stigma and discrimination in five international sites: the influence of care and treatment resources in high prevalence settings," Social science & medicine, vol. 68, no. 12, pp. 2271-2278, 2009.
- S. Urifah, "Pengetahuan dan stigma terhadap pasien HIV/AIDS di lingkungan kesehatan, Indonesia," Indones. J. Heal. Sci., vol. 8, no. 2, pp. 199–207, 2017.
- H. Widyasih, "Faktor-faktor Yang mempengaruhi Stigma Mahasiswa Poltekkes Kemenkes Yogyakarta Terhadap Orang Dengan HIV/AIDS (ODHA)," Teknologi Kesehatan., vol. 11, no 1, pp. 59-63, 2015.
- B. Widjanarko, Z. Shaluhiyan, and R. Muksin, "Faktor-faktor yang berhubungan dengan stigma guru terhadap anak HIV positif (studi pada guru di sekolah mitra pkbi daerah Jawa Tengah dalam implementasi pendidikan kesehatan reproduksi dan eksual)," J. Kesehat. Masy. Univ. Diponegoro, vol. 3, no. 2, pp. 230-237, 2015.
- F. Maharani, "Faktor-Faktor Yang Berhubungan Dengan Stigma Terhadap Orang Dengan Hiv Dan Aids (Odha)," J. Endur., vol. 2, no. 2, pp. 158-167, 2017.
- [9] X. Li et al., "Factors associated with stigma attitude towards people living with HIV among general individuals in Heilongjiang, Northeast China," BMC Infect. Dis., vol. 17, no. 1, pp. 1-6, 2017.
- [10] Daryanto, Learning Media, Bandung: Consciebce, 2011.
- N. and Maramis, Konseling, Dukungan, Perawatan, Dukungan dan Pengobatan (ODHA), Surabaya: Airlangga, 2007.
- [12] Nasronuddin, HIV & AIDS Molecular, Clinical and Social Biological Approach, Surabaya: Airlangga, 2007.
- [13] M. M. L. Dos Santos, P. Kruger, S. E. Mellors, G. Wolvaardt, and E. Van Der Ryst, "An exploratory survey measuring stigma and discrimination experienced by people living with HIV/AIDS in South Africa: The People Living with HIV Stigma Index From South Africa," BMC Public Health, vol. 14, no. 1, pp. 7-10, 2014.
- [14] P. R. P. Khushbu D Makadia, "An exploratory survey measuring stigma and discrimination experienced by people living with HIV/AIDS," Natl. J. Community Med., vol. 9, no. 9, pp. 689-692, 2018.
- [15] Z. S. A. S. Konstantinus Hati, "Community stigma agaist PLWHA In Kupang City, NTT Province (Stigma Masyarakat Terhadap ODHA Di Kota Kupang Provinsi NTT)," Jurnal Promosi Kesehatan Indonesia., vol. 12, no. 1, pp. 62–77, 2018.
- [16] N. A. Tianingrum, "Pengaruh Keterpaparan Informasi Terhadap Stigma HIV AIDS Pada Pelajar SMA," J. Ilmu Kesehat., vol. 6, no. 1, pp. 51-59, 2018.
- [17] M. Alawad, A. Alturki, A. Aldoghayyim, A. Alrobaee, and M. Alsoghair, "Knowledge, attitudes, and beliefs about HIV/AIDS and people living with HIV among medical students at Qassim University in Saudi Arabia.," Int. J. Health Sci. (Qassim)., vol. 13, no. 5, pp. 22-30, 2019.
- [18] W. Tang, et al., "HIV/AIDs-related stigma among medical students in Beijing, China," Int. J. Clin. Exp. Med., vol. 9, no. 5, pp. 8743-8748, 2016.
- [19] C. Kingori, M. Adwoa Nkansah, Z. Haile, K.-A. Darlington, and T. Basta, "Factors associated with hiv related stigma among college students in the Midwest," *AIMS Public Heal.*, vol. 4, no. 4, pp. 347–363, 2017.

  [20] W. Shao, W. Guan, M. A. Clark, T. Liu, and et al, "Does a video improve of HIV/AIDS and HIV Testing among a global
- internet audience ?," J Int Assoc Provid AIDS Care, vol. 15, no. 5, pp. 392-399, 2016.
- [21] E. R. Tarigan, "Efektivitas Promosi Kesehatan dengan Media Leaflet dan Media Video terhadap Pengetahuan dan Sikap Remaja tentang HIV/AIDS di SMA Negeri 1 Berastagi Tahun 2016," Master. dissertation, Universitas Sumatera Utara., Medan, Indonesia, 2016.
- [22] D. Storey, K. Seifert-Ahanda, A. Andaluz, B. Tsoi, J. M. Matsuki, and B. Cutler, "What is health communication and how does it affect the HIV/AIDS continuum of care? A brief primer and case study from New York City," J. Acquir. Immune Defic. Syndr., vol. 66, no. 3, pp. 241-249, 2014.

Commented [L1]: Please translate the Indonesian language

Commented [L2]: Not found on the internet

Commented [ID3]: Knowledge and stigma against HIV / AIDS patients in the health environment, Indonesia

Commented [ID4]: Factors that influence the stigma of the Yogyakarta Ministry of Health Polytekkes Student Against People Living with HIV / AIDS (PLWHA)

Commented [ID5]: Factors associated with teacher stigma against HIV positive children (study of teachers in PKBI partner schools in Central Java in the implementation of sexual and reproductive health education)

Commented [ID6]: Factors Related to Stigma Against People With HIV and Aids (PLHAs)

Commented [ID7]: Counseling, Support, Care, Support and

Commented [ID8]: The Effect of Information Exposure on HIV-AIDS Stigma in High School Students

Commented [ID9]: The Effectiveness of Health Promotion with Leaflet Media and Video Media on Youth Knowledge and Attitudes about HIV/AIDS in high school 1 Berastagi in 2016

- [23] H. A. Alwafi, et al., "Knowledge and attitudes toward HIV/AIDS among the general population of Jeddah, Saudi Arabia," J. 12. M. A. Almai, et al., Richwinger and authors toward ITV/AIDS among the general population of Jeduan, Saudi Atabia, J. Infect. Public Health, vol. 11, no. 1, pp. 80–84, 2018.

  [24] M. Geter Angelica, DrPH, "HIV-Related Stigma by Healthcare Providers in the United States: A Systematic Review," AIDS
- Patient Care and STDs., vol. 32, no. 10, pp. 418-424, 2018.

  [25] S. Vorasane, et al., "An investigation of stigmatizing attitudes towards people living with HIV/AIDS by doctors and nurses in Vientiane, Lao PDR," BMC Health Serv. Res., vol. 17, no. 1, pp. 1–13, 2017.

### BIOGRAPHIES OF AUTHORS

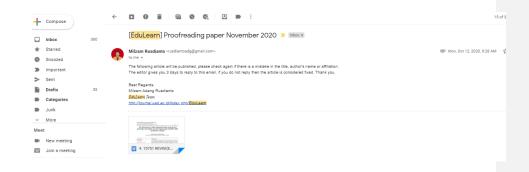


Nanik Setiyawati is a midwife and lecturer at Midwifery Department Poltekkes Kemenkes Yogyakarta, Indonesia. Basic educational is Magister Health Promotion Diponegoro University Semarang Indonesia, concentration of health reproductive and HIV/AIDS. Focus of the research and study about Reproductive Health Care.



Niken Meilani, is a lecturer at Midwifery Department Poltekkes Kemenkes Yogyakarta.  ${\it Graduate\ Master\ Program\ Health\ Promotion,\ Diponegoro\ University\ Semarang\ and\ shortcourse}$ program Reproductive Health Care Royal Tropic Intsitute/ KIT Amsterdam Netherlands. Focus of the research and study about Reproductive Health Care including HIV AIDS among adolescent and women.

## 6. BUKTI KONFIRMASI PROOFREADING (12 OKTOBER 2020)



## 7. BUKTI REVISI PROOFREADING (22 OKTOBER 2020)

