

Effectiveness of Health Promotion in *Anana Moane* and *Kalambe Sala* in Wakatobi: Community Intervention Based on Local Wisdom in the Prevention of HIV/AIDS Infection

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ABSTRACT

The number of people with HIV continues to increase and it is a common concern of the government and society to be able to realize zero new cases by 2030. There are many programs carried out by the government, one of which is increasing education about HIV/AIDS to adolescent groups. To analyze the effectiveness of Health promotion on *Anana Moane* and *Kalambe Sala*: Community Intervention Based on Local Wisdom in the Prevention of HIV/AIDS Infection in Wakatobi. Using a quasi-experimental method with a pret test design and a post test two group design to analyze the differences between the two intervention groups. The population is *Anana Moane* and *Kalambe Sala* members of the community in Wakatobi aged 17-25 years as many as 68 people. Data analysis using Normalized N-Gain and Independent T tests to see the methods that had the most significant effect on changes in participants' knowledge about HIV/AIDS. There was a significant influence of Health promotion carried out in 2 intervention groups on the knowledge and attitudes of *Anana Moane* and *Kalambe Sala* regarding HIV/AIDS Prevention Efforts, but the most influential health promotion was an effective training method in increasing the knowledge and attitudes of *Anana Moane* and *Kalambe Sala*. Adolescents' knowledge of HIV/AIDS is still limited, so it requires efforts to approach and educational methods according to local culture as explained to *Anana Moane* and *Kalambe Sala* to increase knowledge and change attitudes so that new cases of HIV/AIDS, especially in adolescents, can be reduced.



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1. Introduction

The global target to end the AIDS epidemic by 2030, then Indonesia has set to reach 95-95-95 and three zero/3.0 HIV/AIDS and PIMS in 2020-2024. Where 95% of PLHIV knew its status, 95% of PLHIV who knew the status of getting treatment, and 95% of PLHIV treated by the virus were suppressed. It is

estimated that there are 543,100 people with HIV and AIDS (PLHIV) in 2020, the prevalence of HIV in Indonesia is 0.26% in the adult population of more than 15 years except in The Land of Papua which has a low-level widespread epidemic with a prevalence of 1.8%. If the current interventions are strengthened and sustained, the number of new HIV infections in the population aged 15 years and over in Indonesia is expected to continue to decline after reaching its peak in 2018-2019. Prevention and control of sexually transmitted infectious diseases is an inseparable entity with the control of HIV/AIDS [1].

According to WHO (2018) The high number of HIV/AIDS cases is inseparable from behaviors and conditions that put individuals at greater risk of contracting HIV, such as having risky sexual intercourse through anal or unprotected vagina, having other sexually transmitted infections (STIs) such as syphilis, herpes, chlamydia, gonorrhoea and bacterial vaginosis; sharing contaminated syringes, syringes and other syringes and drug solutions when injecting drugs; receiving unsafe injections, blood transfusions and tissue transplants, and medical procedures involving non-sterile cutting or piercing; and sustained an accidental syringe-puncture injury, including among health workers [2]. Until now, no cure has been found that can cure HIV/AIDS, so prevention efforts are needed by considering the role of human physiology such as human behavior patterns and socio-cultural influences. The risk factors for HIV/AIDS transmission caused by community behavior factors, the problem of HIV/IDS is not only said to be a health problem, but this is also a social problem. Therefore, the problem of HIV/AIDS also requires comprehensive countermeasures and involves many parties, although HIV prevention is a complicated process and the results are unpredictable [3], [4]. Although culture and empowerment are never used in combined terms because culture is often presented as a barrier and empowerment as a force [5].

An approach with an emphasis on knowledge, attitudes and healthy living practices is expected to reduce new cases of HIV/AIDS prevention behavior can be adopted by society if it has a good level of knowledge [6]. Attention to the HIV/AIDS case, which is an iceberg phenomenon, is a joint responsibility of the government and communities throughout Indonesia, including in Wakatobi Regency, Southeast Sulawesi. Report on the Development of HIV/AIDS and Sexually Transmitted Diseases (PIMS) in the first quarter of 2021 for Southeast Sulawesi, as many as 3,795 people tested for HIV found as many as 16 new cases [7]. Based on data from KPAD in 2021, there were 13 new cases of HIV (1 case age range of 5-14 years, 1 age 20-14 years and 11 cases aged 25-49 years) [8]. Efforts to prevent and handle HIV/AIDS are challenging because many do not understand the pattern of transmission and do not realize that they have been infected with HIV, plus there is a bad stigma of society related to HIV that makes people reluctant to check themselves.

The importance of disseminating information involving the *Anana Moane* and *Kalambe Sala* communities (a local designation for young men and women in Wakatobi) is inseparable from the government's designation of this area as Wakatobi National Park since 2002. The objectives include sustainable regional development, especially the fisheries and tourism sectors. In 2012 Wakatobi was selected as the world's Biosphere Reserve by UNESCO. This is inseparable from the participation of indigenous peoples [9]. The strategy carried out to increase tourist visits by the local tourism office is starting from print media, social media to through the "Sail Wakatobi" event [10]. Anamoane and Kalambensala are members of the community who are also directly involved in the advancement of tourism. However, their involvement so far has not been exposed to adequate information regarding the prevention of HIV/AIDS. This is important to note considering the results of research by researchers from the Population Research Center-Indonesian Institute of Sciences (PPK-LIPI) which revealed that Indonesia's strategic geographical location for both trade and tourism, is a factor that also accelerates the increase in the number of people infected with HIV/AIDS. Indonesia is increasingly attractive not only for foreign tourists, but also stimulating the

occurrence of drug transactions (narcotics) which are international in nature. In certain cases, the increase in tourists or foreign workers entering Indonesia has resulted in the population being particularly vulnerable to HIV/AIDS infection [11].

The empowerment of local communities through behavioral interventions needs to be strengthened because of the complexity of problems outside of health including behavioral and socio-cultural factors that can be a threat to the transmission of PIMS, including HIV/AIDS. Risk factors for transmission OF PIMS, HIV/AIDS Are mostly found in the productive age, namely 25-49 years with a homosexual population (LSL and Transvestite) of 27.2%4. Heterosexuals alternating sexual and homosexual partners are equally at risk of being infected with sexually transmitted diseases [12]. This key population needs to be approached as an effort to reduce new cases of HIV. That one of the effective steps to contain the spread of HIV/AIDS in Indonesia is through a program focused on key population groups, identifying potential problems needs to pay attention to who in their environment is classified as behaving at risk or potentially contracting HIV [13], [14].

Although prevention efforts have been made by counselling adolescents, screening of pregnant women at puskesmas where there are HIV cases, examinations at Night Entertainment Places, but new cases are still being found. In fact, it is feared that the number will increase if prevention efforts are not effective so that active involvement or participation from local communities such as *Anana Moane* and *Kalambe Sala* is needed. The Development of culturally appropriate and innovative strategies to reduce risky behaviors by promoting social and cultural forces [15]. If the individual has knowledge related to their risky behaviors, it can be a trigger for prevention. Perception of risk usually arises from knowledge about how to transmit and prevent HIV and then is connected with the personal experience of individuals who have carried out risky behaviors of contracting HIV [16].

The difference between this study and the previous study is that this study uses the representation of local communities *Anana Moane* and *Kalambe Sala* that already exist to be given interventions on HIV/AIDS and then participants who have been trained will become peer leaders of HIV/AIDS to influence individual behavior by providing the same training to various communities in Wakatobi. Citing the study of Demartoto, A (2018), that the importance of community participation in overcoming HIV/AIDS as a form of citizens caring about AIDS. This research is important to do, because to end the HIV/AIDS epidemic, which is a global goal in the SDGs by 2030, active participation from all walks of life is needed.

2. METHODS

This study used a quasi-experimental method with a pret test design and a post test two group design to analyze the differences between 2 intervention groups. The population is *Anana Moane* (young boys) and *Kalambe Sala* (young girls) who are members of the community in Wakatobi aged 17-25 years. The sample was members of the Indonesian Charm Generation Community (Genpi) Wakatobi as many as 34 people for HIV/AIDS Training and members of the Intra-School Student Organization (OSIS) of SMAN 1 Wangiwangi as many as 34 using booklets. The withdrawal of the number of samples takes into account the Covid 19 pandemic situation with health protocols. Before being given an intervention, a pre-test was first carried out in the training method group and with the group using the booklet, and a reassessment (Post test) with the same question after the intervention was carried out to see the influence of the educational method carried out. The knowledge questionnaire regarding HIV/AIDS consists of 45 questions. Data analysis using Normalized N-Gain and Independent T test to see the methods that had the most significant effect on changes in participants knowledge about HIV/AIDS.

3. FINDINGS

3.1 Analysis of Respondent Characteristics Description

Table 1: Distribution of respondent characteristics by gender and age group

Characteristics of Respondents	Training Group		Booklet Group	
	Frequency	Percentage	Frequency	Percentage
Gender				
Man	9	26,47	9	26,47
Woman	25	73,53	25	73,53
Kelompok Usia				
15 – 18	17	50	21	61,76
19 – 22	15	44,12	13	38,24
23 – 26	2	5,88	0	0
Jumlah	34	100	34	100

Source: Primary Data, 2022

Table 2. Value of Knowledge before and after intervention in training group and booklet group

Knowledge	Training Group		Booklet Group	
	Pretest	Posttest	Pretest	Posttest
Average	56,12	76,59	60,44	75,53
Top Score	69	80	73	80
Lowest Score	34	69	38	62
Standard Deviation	10,298	2,765	9,388	4,521
Total	34	34	34	34

Source: Primary Data, 2022

Based on the results of data analysis in table 2, it can be explained that the knowledge of the group that received training was more prominent than the group that used Booklet. The average score of respondents increased when compared to before training, which was 56.12 to 76.59 after receiving training. Meanwhile, in the group that used the booklet, there was an increase after training, which was 60.44 to 75.53. So based on the results obtained, it can be said that the training group has a better increase in knowledge.

3.2 Frequency Distribution and Percentage of Knowledge Level of Intervention Group Respondents

Table 3. Frequency Distribution of Knowledge of Training Groups and Booklets

Categories	Pretest		Posttest	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Training Group				
Very high	0	0,00	33	97,06
High	12	35,29	1	2,94
Low	12	35,29	0	0,00
Very low	10	29,41	0	0,00
Booklet Group				
Very high	0	0,00	33	97,06
High	12	35,29	1	2,94
Low	12	35,29	0	0,00
Very low	10	29,41	0	0,00
Total	34	100	34	100

Source: Primary Data, 2022

Table 3 shows the distribution of the number of respondents and the percentage of respondents' knowledge

in the group that received the training. At the stage before receiving knowledge training, respondents were in the high category of 35.29 percent, low 35.29 percent and very low at 29.41 percent. After receiving training, the level of knowledge of respondents changed, namely in the very high category of 97.06 percent, and high by 2.94 percent. in the low and very low category to 0 percent. This shows an increase in the knowledge of students after receiving training.

Table 3 shows the distribution of the number of respondents and the percentage of respondents' knowledge in the group using the booklet. At the stage before using the booklet, the respondents' knowledge level was in the very high category of 11.76 percent, high 55.88 percent, low at 11.76 percent and very low at 20.59 percent. After using the booklet, the level of knowledge of respondents changed, namely in the very high category of 85.29 percent, high of 14.71 percent, low and very low category of 0 percent. This shows an increase in students' knowledge after receiving material through the booklet.

3.3 Results of the Effectiveness Test of Using Booklets and Training with Score Gain

Table 4. Test the Effectiveness of Using Booklets and Training with Gain Score

Group	Knowledge	Categories
Training:		
% Average N-Gain	82,56	Effective
% Max.	100	
% Min.	50	
Std. Deviation	14,166	
Booklet:		
% Average N-Gain	78,74	Quite Effective
% Max.	100	
% Min.	47	
Std. Deviation	14,745	

Source: Primary Data, 2022

Table 4 shows that the average N-Gain value of respondents' knowledge related to HIV/AIDS prevention and control descriptively increased after attending the HIV/AIDS Prevention and control training which was 82.56 and was in the effective category (the value was > 76), while in the group that used booklets related to HIV/AIDS prevention and control also experienced changes where the average score of the Percentage Gain Score in the Knowledge aspect was 78.74 or is in the effective category.

4. DISCUSSION

Human immunodeficiency Virus (HIV) is a virus that infects white blood cells that causes a decrease in endurance, Acquired Immunodeficiency Syndrome (AIDS) is a set of symptoms that arise due to a decrease in immunity caused by infection by HIV [17]. Until now no cure has been found, so it requires attention for all walks of life because it poses a threat to all age groups. Various prevention efforts were carried out from the regional to the central level to support the achievement of the three Zero target by 2030, as well as those carried out in this study.

Based on the characteristics of the intervention participants in this study, *Anana Moane* and *Kalambe Sala* who are at the age of 17-24 years who are an age group that is prone to being infected with sexually transmitted diseases, so it is very important to be given intervention. The lack of proper and relevant information about HIV/AIDS disease, and supported by the curiosity of adolescents, causes them to enter one of the high-risk behavior populations [18]. In this phase, adolescents listen more to their friendship environment so they are very prone to promiscuity and pregnancy outside of marriage. Problems related to

adolescent behavior and reproduction such as the increasing cases of sexually transmitted diseases, especially HIV/AIDS, the mortality of young mothers which are still very high, the outbreak of abortion practices due to unwanted pregnancies and the tendency to have sexual relations before marriage [19].

By gender, the same numbers were among *Anana moane* and *Kalambe Sala* who were respondents in the two intervention groups. *Anana Moane* and *Kalambe Sala's* answers when the pre-test was low in several questions, this can be expected because both men and women lack information about sexually transmitted infections including HIV/AIDS even though today the association is increasingly widespread and there are many places to gather. *Anana Moane* and *Kalambe Sala* are empowered to promote tourism and local cuisine considering that Wakatobi is a tourist area, but is less exposed to information about health issues, including about sexually transmitted infections. The results of this study are different from those found by [20] which revealed that there is a relationship between gender and knowledge about HIV/AIDS, women are less informed about HIV/AIDS which is likely due to men being more outside the home so that it is easier to get health information, especially HIV/AIDS.

In the training group, the pre-test results showed an average score of 56.12 participants knowledge about HIV/AIDS. In this section, there are still many participants who do not understand the symptoms, the course of HIV/AIDS disease and misinformation about the pattern of HIV/AIDS transmission so that discrimination occurs. The information obtained is only in the form of general things, for example, premarital sex causes pregnancy and can be infected with HIV but many adolescents do not understand the pattern of sexual infection events. This corroborates the indication that *Anana Moane* and *Kalambe Sala* still have limited information and insight into HIV/AIDS. The deficit of knowledge possessed about the transmission and prevention of STIs is related to the stammering knowledge resources of STIs [21], [22].

The complex causes of HIV transmission are our concern to jointly promote health to the public with various methods and educational media. AIDS Management will be very effective if it involves all components of society so that every citizen understands HIV/AIDS, is willing to participate and is able to jointly overcome HIV/AIDS [10]. Promotion is the most important first step taken in efforts to prevent HIV/AIDS, providing information to the public regarding the initial introduction, ways of transmission and how to avoid HIV/AIDS. Promotion efforts are carried out with various alternatives including through communication, information and education to community groups [23].

So far, the role of *Anana Moane* and *Kalambe Sala* in Wakatobi in the social relations of the community is quite close. *Anana Moane* and *Kalambe Sala* are often involved in various cultural rituals in Wakatobi. Among them are playing a direct role as cultural subjects such as Karia'a (procession entering the age of baliq) and Mansa'a (martial tradition). This aims to preserve the local culture so that it can be understood and implemented for generations. Certainly, the involvement of *Anana Moane* and *Kalambe Sala* has become a magnet for local residents to participate in social activities for the improvement of public health status. However, their involvement so far has not been exposed to sufficient information regarding efforts to prevent diseases such as HIV in this area.

After being given training for two days, there was a significant increase in *Anana Moane* and *Kalambe Sala* to 97.06% very high knowledge of HIV/AIDS and only (2.94) had high knowledge. This can be explained because of the training atmosphere that provides space for *Anana Moane* and *Kalambe Sala* to get a lot of information from sources related to HIV/AIDS. Each session provides an opportunity for them to discuss material and problem solving related to the cases provided regarding PIMS. If at the time of the pre-test many answered incorrectly on the symptoms, patterns of transmission and course of HIV/AIDS disease, but

after getting the training participants had answered correctly and could even explain in a straightforward manner as they had been obtained during the training. This shows that the material given with an explanation that is easy to understand, interesting especially is a hot issue easily accepted by *Anana Moane* and *Kalambe Sala*. The resource persons came from the Health office and KPAD Wakatobi with medical backgrounds and persons in charge of infectious diseases, so that the direct explanation provided could avoid misinformation, especially related to HIV/AIDS. Health promotion can help understanding related to health information and determine individual healthy living behaviors because each method used has different strengths in shaping a person's perception or thinking style [24- 26].

Changes in knowledge also occurred in the *Anana Moane* and *Kalambe Sala* booklet groups, but the increase was not like the training group. The booklet used in this study contains the same material as the training material sourced from the Ministry of Health of the Republic of Indonesia but is more concise but the information is more specific. The booklet is designed to be more attractive and eye-catching to stimulate the five senses with the aim of changing knowledge to target behavior. The pre-test results showed that the average score of 60.44 in members of the student council of SMAN 1 Wangi-Wangi regarding HIV/AIDS, 11 people (32.35 %) had low knowledge about transmission patterns, symptoms and efforts to prevent HIV/AIDS. The results of the post test, which was measured 1 week after being given a booklet read independently by *Anana Moane* and *Kalambe Sala* who came from members of the Intra-School Student Organization (OSIS), found that 29 participants (85.29 %) had a good improvement after being given education through the media of booklets. This is inseparable from the material that is designed to be interesting for them, besides that the booklet can also be taken home so that it can be read repeatedly. Media booklets have benefits, including helping education goals to learn more and faster, making education goals interested and wanting to know more deeply to forward the messages received to others, facilitating the discovery of information by education targets and encouraging people's desire to know and then explore and finally get a better understanding [27]. The results of the evaluation still have 14.71% persistent knowledge, this shows that the change in knowledge is inseparable from the ability to remember a person depending on the stimulus received at that time. Booklets are visual media that contain important messages accompanied by images and can help interest in reading and forming memories. Visual-based media (images or parables) play a very important role in the learning process. Visual media can facilitate understanding and strengthen memory. Visuals can also foster interest and can provide a connection between the content of the subject matter and the real world. To be more effective, visuals are placed in a meaningful context and students must interact with that visual (image) to convince the information process to occur [28]. Almost half of the adolescents who were respondents showed an increase in knowledge scores after being given booklet interventions, so the booklet contributed to increasing target knowledge [29].

Based on the results of the effectiveness test with a Gain Score, it was found that the training method was in the effective category with an average of N-Gain 82.56% increasing participants' knowledge about HIV/AIDS compared to using modules with an average result of N-Gain 78.74% in the category of quite effective. There are differences in the effect of increasing participants' knowledge based on the methods used even though the material is the same in this study, because in the training, the material was given directly with a detailed explanation by the resource person while the booklet was only studied independently by the participants. Training can improve participants' knowledge and perspectives on HIV/AIDS because it can unite perceptions and as a means of receiving and exchanging information and can reduce the stigma and discrimination directed at people with HIV/AIDS.

Functionally, the right media is one of the determinants of the success of messaging aimed at providing the right information to the target. Some of the objectives and reasons why the media is very necessary in the

implementation of health promotion are because the media facilitates the delivery of information and can clarify information, avoid misrepresentations and facilitate understanding [30]. The delivery of information using media, especially those involving audio and visual, is believed to be effective in increasing understanding of targets, media as education is very necessary because of the role of audio-visual media in increasing adolescent knowledge related to sexual education [31].

5. Conclusion

Based on the results of research on Health promotion interventions in the two groups of Anana Moane and Kalambe Sala, it can be concluded that the training method is more effective than the booklet in increasing knowledge in Anana Moane and Kalambe Sala about HIV/AIDS in Wakatobi. This research reveals that training with direct interaction accompanied by a detailed explanation to the target is a method that attracts attention compared to other media such as booklets even though the material is the same. It is recommended for further research to develop methods for conveying information about HIV/AIDS to be more attractive and easily accepted and adjusted to the local characteristics of the target group, so that the Three Zero target by 2030 can be achieved.

6. References

- [1] Indonesia KKR. Rencana Aksi Nasional Pencegahan dan Pengendalian HIV/AIDS dan PIMS di Indonesia Tahun 2020-2024. November 2. Jakarta: Kementerian Kesehatan Republik Indonesia; 2020.
- [2] WHO. Global Health Observatory Data: HIV/AIDS. World Health Organization. 2022;1.
- [3] Tumanggor R. Masalah - Masalah Sosial Budaya Dalam Pembangunan Kesehatan di Indonesia. *J Masy dan Budaya*. 2010;12(2):231–54.
- [4] Aggleton P, Yankah E, Crewe M. Education and HIV/AIDS 30 Years on. *AIDS Educ Prev*. 2011 Dec;23(6):495–507.
- [5] Airhihenbuwa CO, Webster JDW. Culture and African contexts of HIV/AIDS prevention, care and support. *Sahara J*. 2004;1(1):4–13.
- [6] Jadgal KM, Siouki HA, Razavi NS. The using of health belief model on AIDS preventive behaviors among health volunteers. 2013;
- [7] Direktur Jenderal P2P. Laporan Perkembangan HIV/AIDS & Penyakit Infeksi Menular Seksual (PIMS) Triwulan I Tahun 2021. Vol. 4247608, Kementerian Kesehatan RI. 2021.
- [8] KPAD. Jumlah kasus HIV Tahun 2021. KPAD Wakatobi. 2022.
- [9] Diyati E. Upaya Masyarakat Wakatobi Dalam Menjadikan Taman Nasional Sebagai Cagar Biosfer Dunia Tahun 2012. *Jom Fisip*. 2018;5(1):1–14.
- [10] Finarti F, Ningtyas C, Purwati N. Strategi Pengembangan Pariwisata Dalam Meningkatkan Daya Tarik Wisata Studi pada Hoga Dive Resort Kabupaten Wakatobi. *Bus UHO J Adm Bisnis*. 2020 Oct;5:614.
- [11] Purwaningsih SS, Widayatun N. Perkembangan HIV dan AIDS di Indonesia: Tinjauan Sosio Demografis. *J Kependud Indones*. 2008;3(2):75–95.

- [12] Asrina A, Palutturi S. The formation of homosexual behavior in south sulawesi province (study on young homosexual in makassar city and bulukumba district). *Syst Rev Pharm.* 2020;11(12):477–83.
- [13] Sri Utami. HIV/AIDS dalam Sustainable Development Goals (SDGs): Insiden, Permasalahan, dan Upaya Ketercapaian di Indonesia. In: *Peran Matematika, Sains, dan Teknologi dalam Mencapai Tujuan Pembangunan Berkelanjutan/SDGs.* 2018. p. 117–37.
- [14] Demartoto A. Warga Peduli AIDS Wujud Peran Serta Masyarakat dalam Penanggulangan HIV/AIDS. *J Anal Sociol.* 2018;7(1):141–51.
- [15] Opara I, Rodas EIR, Garcia-Reid P, Reid RJ. Ethnic Identity, Empowerment, Social Support and Sexual Risk Behaviors Among Black Adolescent Girls: Examining Drug Use as a Mediator. *Child Adolesc Soc Work J.* 2022;39(1):71–86.
- [16] RI K. Laporan perkembangan HIV/AIDS triwulan IV tahun 2010. Jakarta Dirjen PP dan PL Kementerian Kesehatan RI. 2011;
- [17] Kemenkes RI. Pusat Data Informasi HIV/AIDS. Kementerian Kesehatan Republik Indones. 2020;1–8.
- [18] Arini T, Kasanah A Al. Peningkatan Pencegahan HIV/AIDS kepada Remaja Melalui Pelaksanaan Edukasi Melalui Metode Peer Education. 2021;4(1):8–14.
- [19] Pratiwi NL, Basuki H. Hubungan Karakteristik Remaja Terkait Risiko Penularan HIV/AIDS dan Perilaku Seks Tidak Aman di Indonesia. *Bul Penelit Sist Kesehat.* 2011;14(4):346–57.
- [20] Oktarina, Hanafi F, Budisuari MA. Hubungan Antara Karakteristik Responden, Keadaan Wilayah dengan Pengetahuan, Sikap Terhadap HIV/AIDS pada Masyarakat Indonesia. *Bul Penelit Sist Kesehat.* 2009;124(4):362–9.
- [21] Zhang D, Pan H, Cui B, Law F, Farrar J, Ba-Thein W. Sexual behaviors and awareness of sexually transmitted infections among Chinese university students. *J Infect Dev Ctries.* 2013;7(12):966–74.
- [22] Zhang L, Gao X, Dong Z, Tan Y, Wu Z. Premarital Sexual Activities Among Students in a University in Beijing, China. *Sex Transm Dis.* 2002;29(4).
- [23] Rum M, Rakhman R. Peran Pemerintah Daerah dalam Pencegahan dan Penanggulangan HIV/AIDS di Kabupaten Merauke. *J Ilmu Pemerintah.* 2017;10(1):20–9.
- [24] Fitriani Dwiana S, Eko GP, Dkk. Penyuluhan Anemia Gizi Dengan Media Motion Video Terhadap Pengetahuan Dan Sikap Remaja Putri. *J Kesehat.* 2019;97–104.
- [25] Asyary MS, Moviana Y, Surmita. Penyuluhan Gizi dengan Pengembangan Food Model 'Piring Makanku' Meningkatkan Perilaku Konsumsi Makanan Seimbang pada Remaja. *J Ris Kesehat Poltekkes Depkes RI Bandung.* 2018;10(1):1–8.
- [26] Prihatin F, Kanang B, Andriani F. The Effect of Oxytocin Massage by Husband on Mother 's Response to Breastfeeding in Gowa Regency, South Sulawesi. *Int J Sci Basic Appl Res.* 2020;54(4):206–

13.

[27] Hendra Hermawan HH, Weni Kurdanti WK, Noor Tifauzah NT. Efektivitas Konseling Gizi Menggunakan Media Booklet Dibandingkan dengan Leaflet terhadap Kualitas Diet Pasien Diabetes Mellitus Tipe 2 di Puskesmas Gamping II. Poltekkes Kemenkes Yogyakarta; 2017.

[28] Kawuryan F, Raharjo T. Pengaruh Stimulasi Visual Untuk Meningkatkan Kemampuan Membaca Pada Anak Disleksia. Staf Pengajar Fak Psikol Univ Muria Kudus Abstr. 2012;1(1):9–20.

[29] Rocha MR da, Vale HS do, Moreira TMM, Borges JWP, Machado ALG, Silva ARV da. Validation of an educational booklet: effect on the knowledge about prevention of metabolic syndrome in adolescents. *Texto Context*. 2022;31.

[30] Notoatmodjo S. Promosi Kesehatan, Teori dan Aplikasi. Jakarta: Rineka Cipta; 2010.

[31] Djannah SN, Sulistyawati S, Sukesu TW, Mulasari SA, Tentama F. Audio-visual media to improve sexual-reproduction health knowledge among adolescent. *Int J Eval Res Educ*. 2020;9(1):138–43.