



ARTICLE RESEARCH

URL artikel: <http://jurnal.fkmumi.ac.id/index.php/woh/article/view/woh7405>**The Influence of the Information Motivation Behavioral Skills Model Approach on Increasing HIV/AIDS Prevention Information**Idhar Darlis¹, ^CFatmah Afrianty Gobel², Arman³, Anunciacion Talosig⁴, Euis Dedeh Komariah⁵¹Public Health, Faculty of Health, Universitas Pejuang Republik Indonesia, Indonesia^{2,3}Public Health, Faculty of Public Health, Universitas Muslim Indonesia, Indonesia⁴School of Nursing and Allied Health Science, St. Paul University Philippines, Philippines⁵Sekolah Ilmu Kesehatan (STIK) Stella Maris, IndonesiaEmail Correspondence Author's (C): fatmahafrianty.gobel@umi.ac.id²idhar17a1@gmail.com¹, fatmahafrianty.gobel@umi.ac.id², armanidris@yahoo.co.id³,atalosig@spup.edu.ph⁴, euisdedeh89@gmail.com⁵

ABSTRACT

The number of HIV/AIDS cases in Indonesia although it tends to fluctuate, data on HIV/AIDS cases in Indonesia continues to increase from year to year. The increase in the spread of HIV/AIDS is certainly very worrying because, in reality, it occurs in all levels of society in almost all provinces, especially within a community group or community. This research aims to analyze the influence of the Information Motivation Behavioral skills model approach on increasing HIV/AIDS prevention information for inmates at Sungguminasa Narcotics Prison. The type of research used is quantitative research with a quasi-experimental pre-post test approach with a control group design. This research was conducted at the Class IIA Sungguminasa Narcotics Prison with a sample size of 60 respondents consisting of 30 for the control and intervention groups. In the intervention group, based on the results of the Wilcoxon statistical test, a P-value of $0.004 < 0.05$ was obtained, meaning that there was an influence of the IMB model approach on increasing HIV/AIDS prevention information among inmates at the Sungguminasa Class IIA Narcotics Prison. In the control group, based on the results of the Wilcoxon statistical test, a P-value of $0.132 > 0.05$ was obtained, meaning that there was no effect of the IMB model approach on increasing HIV/AIDS prevention information among inmates at the Sungguminasa Class IIA Narcotics Prison. From this research, it can be concluded that the IMB Model influences increasing information for inmates. The IMB model can be an approach that can be applied in the Sungguminasa Class IIA Narcotics Prison.

Keywords: HIV/AIDS; information; prison

PUBLISHED BY :

Faculty of Public Health
Universitas Muslim Indonesia

Address :

Jl. Urip Sumoharjo Km. 5 (Kampus II UMI)
Makassar, Sulawesi Selatan.

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jurnal.fkm@umi.ac.id

Article history

Received 4 December 2023

Received in revised form 23 August 2024

Accepted 18 September 2024

Available online 25 October 2024

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INTRODUCTION

The number of HIV/AIDS cases in Indonesia, although it tends to fluctuate, data on HIV AIDS cases in Indonesia continues to increase from year to year. Over the last eleven years, the number of HIV cases in Indonesia reached its peak in 2019, namely 50.282 cases. Based on WHO data in 2019, there were 78% of new HIV infections in the Asia Pacific region. The highest number of AIDS cases during the last eleven years was in 2013, namely 12.214 cases.¹

Based on data from the Directorate General of P2P sourced from the 2019 HIV, AIDS, and STI Information System, the 4th quarter report states that HIV and AIDS cases in men are higher than in women. In 2019, 64.50% of HIV cases were men, while 68.60% of AIDS cases were men. This is in line with the results of HIV reports based on gender from 2008 to 2019, where the percentage of male sufferers is always higher than that of females.¹

Distribution of new HIV sufferers based on population at risk globally (2018) sex workers 6%, people who inject drugs 12%, MSM and other types of men who have sex with the same sex 17%, transgender women 1%, sex worker clients and sex partners of the at-risk population 18% and other populations 46%. The increased risk of contracting HIV among at-risk populations in the world in 2018 was men having sex 22 times, people who inject drugs 22 times, sex workers 21 times, and transgender people 12 times.²

The number of HIV/AIDS sufferers in South Sulawesi is still quite high. Data from the South Sulawesi Provincial Health Service as of June 2019, the number of HIV sufferers in South Sulawesi was 537 people, while AIDS was 190 people. This figure is lower than data from the Health Service in 2018, where the number of HIV sufferers was 1.171. Meanwhile, there were 575 people with AIDS. Even though the number of sufferers in 2018 has decreased, this does not mean that HIV/AIDS cases have decreased.³

Looking at the age group, the largest number of sufferers is in the 15-29 age group, namely 36.4%, followed by the 30-39 year age group at 34.5%. Meanwhile, the causal factors have shifted, with heterosexual transmission of HIV being the main cause (76.3%). Followed by HIV transmission through the use of unsafe injectable drugs (16.3%) and then by homosexual transmission of HIV (2.2%).³

The increase in the number of HIV/AIDS cases in the world tends to be caused by increasingly risky behavior carried out by various groups of people in the world. Epidemiological risk factors for HIV infection are high-risk behavior, including sexual relations with a partner without using a condom, intravenous narcotics use, especially when sharing needles without adequate sterilization, unsafe sexual relations including multipartners, sexual partners of individuals known to be infected with HIV and contacts role-playing sex, health workers and laboratory workers who are exposed to HIV. Apart from that, a history of sexually transmitted infections and receiving repeated blood transfusions without screening tests, a history of skin injuries, tattoos, piercings, or circumcisions with non-sterile instruments are also risk factors for HIV infection.⁴

The increase in the spread of HIV/AIDS is, of course, very worrying because, in reality, it occurs in all levels of society in almost all provinces, especially in a community group or community. Prisoners) are one group of people who are very vulnerable to HIV/AIDS transmission. Prisons and detention centers are places that are at very high risk for the spread of HIV due to risky behavior practices.⁵

One model that can describe the role of intermediary factors in the occurrence of health behavior is the Information-Motivation-Behavioral Skills (IMB) Model. This model was first conceived by Fisher and Fisher in 1992 to predict HIV prevention behavior and was used to describe the role of three important determinants of behavior, namely information, motivation, and skills, where the skill determinant is an intermediary variable that can influence behavior. The IMB model illustrates that individuals must have the right information, good motivation, and effective skills to be able to practice healthy behavior or not practice risky behavior.⁶

This model can be applied to HIV/AIDS prevention behavior, namely information, motivation, and behavior skills (IMB). This model has been proven to increase information, motivation, and prevention skills in risk behavior against HIV/AIDS transmission in various countries.^{7,8}

METHOD

The type of research used is quantitative research with a quasi-experimental pre-post test approach with a control group design. This research was conducted at the Class IIA Sungguminasa Narcotics Prison with a sample size of 60 respondents consisting of 30 for the control and intervention groups. The intervention group will apply the IMB model by providing information about HIV/AIDS, motivation to carry out preventive behavior, and behavioral skills through the lecture method. The control group did not receive treatment using the IMB model. The data collection method is by meeting directly with respondents and filling in a list of questions in the questionnaire provided in the pretest, after which they are given treatment in the form of counseling using the lecture method and then evaluation through the posttest. Sampling was carried out using a purposive sampling method. Data analysis in this study used the SPSS program, and a normality test was carried out. The hypothesis test used in this research is the Wilcoxon test.

RESULTS

Respondent Characteristics

Table 1. Distribution of Respondents Based on Characteristics in the Intervention Group and Control of Inmates at Sungguminasa Class IIA Narcotics Prison

Characteristics	Sample Group				Total	
	Intervention		Control		n	%
	n	%	n	%		
Age						
17-25 Year	12	40	10	33.3	22	36.7
26-35 Year	11	36.7	20	66.7	31	51.7
36-45 Year	5	16.7	0	0	5	8.3
46-55 Year	2	0	0	0	2	3.3
Total	30	100	30	100	60	100

Education						
Didn't go to school/didn't finish elementary school	1	3.3	1	3.3	2	3.3
Elementary School	5	16.7	6	20	11	18.3
Junior High School	5	16.7	8	26.7	13	21.7
Senior High School	17	56.7	15	50	32	53.3
Diploma/Bachelor	2	6.7	0	0	2	2

Table 1 shows that the distribution of respondents based on characteristics in the intervention and control groups was mostly aged 26-35 years, respectively intervention 11 WBP (36.7%) and control 20 WBP (66.7%). The distribution of respondents based on education in both groups was high school, where the intervention group was 17 WBP (56.7%) and the control group was 15 WBP (50%).

Information

Table 2. Distribution of Respondents Based on Information in the Intervention Group and Control of Inmates at Sungguminasa Class IIA Narcotics Prison

Research Variables	Pre Test				Post Test			
	Intervention		Control		Intervention		Kontrol	
	n	%	n	%	n	%	n	%
Information								
Enough	16	53.3	16	53.3	26	86.7	21	70.0
Not Enough	14	46.7	14	46.7	4	13.3	9	30.0

Table 2 shows that the distribution of respondents based on the information in the pretest of the intervention group was 16 WBP (53.3%) adequate and 14 WBP (46.7%) insufficient. In the control group, 16 WBP (53.3%) was sufficient, and 14 WBP (46.7%) was less. Meanwhile, in the posttest of the intervention group, 26 WBP (86.7%) were adequate, and 4 WBP (13.3%) were insufficient. The control group had sufficient 21 WBP (70%) and less than 9 WBP (30%).

Table 3. Data Normality Test Using Shapiro-Wilk Statistics

Information	Group		Data Distribution
	Intervention	Control	
Pre test	0.004	0.001	Abnormal
Post tets	0.084	0.004	Abnormal

Table 3 shows that the results of the data normality test are not normally distributed, so Shapiro-Wilk statistics and the Wilcoxon test are used.

Table 4. Effect of the IMB Model Approach on Increasing Information Prevention of HIV/AIDS in Inmates of Sungguminasa Class IIA Narcotics Prison

Information	Mean±SD		P-Value	
	Intervention	Control	Intervention	Control
Pre Test	61.56±18.76	60.11±15.04	0.004	0.132
Post Test	71.44±13.41	63.55±16.13		
Difference	9.88±20.50	3.44±18.05		

Table 4 shows the mean±SD value of information in the pretest of the intervention group, namely 61.56±18.76, and in the posttest, it rose to 71.44±13.41; the difference from the mean±SD value was 9.88±20.50. Based on the results of the Wilcoxon statistical test, a P-value of 0.004 < 0.05 was obtained,

so H_a was accepted, and H_0 was rejected, meaning that there was an influence of the IMB model approach on HIV/AIDS prevention information for inmates of the Sungguminasa Class IIA Narcotics Prison.

The mean \pm SD value of information in the control group pretest was 60.11 \pm 15.04, and in the posttest it rose to 63.55 \pm 19.13; the difference between the mean \pm SD value of the control group was 3.44 \pm 18.05. Based on the results of the Wilcoxon statistical test, a P-value of 0.132 > 0.05 was obtained, so H_0 was accepted, and H_a was rejected, meaning that there was no influence of the IMB model approach on HIV/AIDS prevention information for inmates of the Sungguminasa Class IIA Narcotics Prison.

DISCUSSION

HIV disease is closely related to behavior, according to the Information Motivation Behavioral Skills Model (IMB model) theory, which states that information can influence a person's motivation. A person's motivation can be achieved through health education or counseling, and motivation can be obtained from advice from other people or those closest to them, such as family, close friends, and so on. Motivation is very necessary to make behavior changes because motivation is one of the factors that can influence behavior change; without motivation, behavior change will not occur.⁹

Information can include specific facts about health promotion and relevant heuristics (simple rules that enable automatic and cognitively easy – but often incorrect – decisions about whether or not to engage in health-promoting behavior). Health promotion information can also involve relatively complex implicit theories (complex sets of beliefs that require cognitive effort to process and are often incorrect) in making decisions about health-related actions.¹⁰

In the field of HIV prevention behavior, for example, specific facts (e.g., “Condom use prevents HIV transmission”), heuristics (“Monogamous sex is safe sex”), and implicit theories (“Known and trusted people who dress and act appropriately and who having a variety of normative characteristics is a safe partner”) appears to exert a strong influence on the performance of HIV prevention behavior. In other areas of health behavior, such as disease prevention and screening, the IMB model confirms that information is also important exploring the impact of having specific facts (e.g., “Genetic testing for BRCA1 and BRCA2 can clarify breast and ovarian cancer risks” (“Ashkenezic Jewish women should seek BRCA1 and BRCA2 testing”); and women with small breasts do not get breast cancer”) at the level of individual disease prevention and screening.¹⁰

Based on the results of information research on the pretest of the intervention group before being given the IMB model approach, there were sufficient 16 WBP (53.3%) and less than 14 WBP (46.7%), this was because all did not yet understand information regarding HIV/AIDS prevention behavior. Respondents, especially from the results of research on HIV/AIDS prevention behavior, namely the source of HIV/AIDS transmission, there are still many who do not know the sources of HIV/AIDS transmission.

Meanwhile, in the intervention group's posttest, 26 WBP (86.7%) were adequate, and 4 WBP (13.3%) were insufficient. The research results show that there was quite a large increase in the intervention group; this was due to the enthusiasm of the WBPs for receiving the materials that had been delivered.

HIV prevention information that is directly relevant to prevention behavior (information on HIV transmission and prevention) is a prerequisite for such behavior. The information component also includes HIV prevention theory, implicit heuristics and personality, and simple decision rules that enable HIV-positive people to make relatively automatic and cognitively easy (but often incorrect) decisions about a partner's HIV status, about whether to engage in HIV prevention behavior. The use of such heuristics is strongly negatively associated with HIV prevention practices.

The aim of educating the public about how HIV/AIDS is transmitted and how to prevent it is to reduce unsafe/risky behavior. However, research has revealed that knowledge does not necessarily reduce risky behavior. Knowledge is significantly related to motivation and behavioral skills in HIV/AIDS prevention behavior. Starting from using condoms, safe sexual behavior, and several other risky actions.

Based on the research results, the information in the control group's 16 WBP (53.3%) and 14 WBP (46.7%) was lacking. The research results showed that it was not much different from the intervention group during the pretest, with several respondents still having insufficient information regarding HIV/AIDS prevention behavior.

Meanwhile, the control group in the posttest had 21 WBP (70%) sufficient and 9 WBP (30%) less. The research results show an increase in the sufficient category of 16.7%, which indicates an increase in the control group without any intervention provided by the researcher. This happened because the increased information in the control group occurred because of support from peer educators.

The mean \pm SD value of information in the pretest of the intervention group was 61.56 \pm 18.76, and in the posttest it rose to 71.44 \pm 13.41, the difference from the mean \pm SD value was 9.88 \pm 20.50. Based on the results of the Wilcoxon statistical test, a P-value of 0.004 < 0.05 was obtained, so H_a was accepted, and H₀ was rejected, meaning that there was an influence of the IMB model approach on increasing HIV/AIDS prevention information among inmates at the Sungguminasa Class IIA Narcotics Prison. The results of this study show an increase in the mean \pm SD value and significant changes or influences increasing WBP information on HIV/AIDS prevention behavior.

Based on this research, WBP who receive IMB intervention can get accurate information about the risks, sources of transmission, methods of transmission, and prevention of HIV/AIDS to make these WBP understand the negative impacts of behavior that have a negative risk.

The mean \pm SD value of information in the control group pretest was 60.11 \pm 15.04, and in the posttest, it rose to 63.55 \pm 19.13; the difference between the mean \pm SD value of the control group was 3.44 \pm 18.05. Based on the results of the Wilcoxon statistical test, a P-value of 0.132 > 0.05 was obtained,

so H_0 was accepted, and H_a was rejected, meaning that there was no effect of the IMB model approach on increasing HIV/AIDS prevention information among inmates at the Sungguminasa Class IIA Narcotics Prison. The study's results showed an increase in the mean \pm SD value and did not show any significant changes or influence on the control group. This increase in the mean \pm SD value could be caused by exchanging information between the intervention and control groups. This happens because these groups are in the same environment and activities.

Information that is directly relevant to the performance of preventive behavior and can be easily enacted by individuals in their social environment. According to research conducted by Fitriani et al. in 2019, it was shown that the IMB model affected information on the primary prevention of premarital sex in adolescents with a p-value of 0.000.8. In addition, research conducted by Suwarni et al. in 2017 concluded that in IMB intervention, adolescents experienced a significant increase in adolescent information about reproductive health (sexuality).¹¹

HIV disease is closely related to behavior, according to the Information Motivation Behavioral Skills Model (IMB model) theory, which states that information can influence a person's motivation. A person's motivation can be achieved by means of health education or counseling, and motivation can be obtained from advice from other people or those closest to them, such as family, close friends, and so on. Motivation is very necessary to make behavior changes because motivation is one of the factors that can influence behavior change; without motivation, behavior change will not occur.⁹

The IMB model assumes that information can influence preventive behavior. A person with extensive knowledge makes it possible to carry out preventive behavior, which is supported by the motivation within him so that he can carry out preventive behavior. This research is not in accordance with research conducted by Ameri, M. et al. in 2021 that there was no influence of the IMB model on information on adherence to medication, diet, and physical activity in HIV/AIDS patients based on health promotion strategies.¹²

Based on the Information Motivation Behavioral Skills (IMB) Model of ARV Adherence theory, information, motivation, and behavioral abilities are fundamental determinants of behavior.¹³ Results of research by Horvath, Smolenski & Amico in 2014, who conducted an online survey using the Life Windows IMB-ARV-Adherence Questionnaire in Milwaukee, Wisconsin, on 312 PLWHA, showed that information (knowledge) and motivation influenced the level of compliance of PLWHA through behavioral ability. The IMB Model of ARV Adherence is a behavioral model that specifically addresses adherence to ARV medication in HIV patients. According to Amico (2006), the IMB Model of ARV Adherence contributes greatly to encouraging efforts to extend and improve the quality of life of HIV patients on ARVs through behavior change interventions.¹⁴

The Information-Motivation-Behavior (IMB) Skills Model developed by Fisher and colleagues is designed to predict HIV prevention behaviors and critical elements of HIV prevention interventions.

The model has shown that HIV prevention information, motivation, and behavioral skills are fundamental determinants of HIV prevention behavior.¹⁵

This model assumes that an individual must have good information, positive motivation, and the correct behavioral self-efficacy skills to initiate preventive behavior. Furthermore, HIV prevention information and motivation are generally considered independent constructs in the model. In particular, informed individuals are not always motivated to change their behavior, and motivated individuals are not always well-informed about HIV prevention.¹⁵

CONCLUSIONS AND RECOMMENDATIONS

In the intervention group, based on the results of the Wilcoxon statistical test, a P-value of 0.004 < 0.05 was obtained, so H_a was accepted, and H_0 was rejected, meaning that there was an influence of the IMB model approach on increasing HIV/AIDS prevention information among inmates at the Sungguminasa Class IIA Narcotics Prison. In the control group, based on the results of the Wilcoxon statistical test, a P-value of 0.132 > 0.05 was obtained, so H_0 was accepted, and H_a was rejected, meaning that there was no effect of the IMB model approach on increasing HIV/AIDS prevention information among inmates at the Sungguminasa Class IIA Narcotics Prison. Suggestion: Collaboration between the Sungguminasa Class IIA Narcotics Prison and the Health Service is needed to carry out HIV/AIDS screening to prevent transmission among correctional inmates. Health workers in prisons or prison guards must continue to pay attention to behavior that could pose a disease risk.

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