

## Original Research Article

# The Prevention of Online-Based Cervical Cancer in Increasing Intrinsic and Extrinsic Motivation of Fertile Age Women to Do Iva Examination

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**Abstract:** Cancer is a significant health problem for people around the world, one of which is cervical cancer. It is a malignancy of the cervix and categorized as second highest in the world and Indonesia. The incidence of this disease is almost 80% of cases occur in poor and developing countries, half of which end in death. In Indonesia, more than 70% of cervical cancer cases are at an advanced stage. The Acetic Acid Visual Inspection (IVA) method for early cervical cancer detection is essential for every fertile age woman (WUS). IVA examination requires motivation. The provision of health education is needed to increase the motivation of WUS to carry out IVA examinations. Following the times, the condition of adequate health education is carried out through online media. This study aims to determine the effectiveness of online-based cervical cancer prevention in increasing the intrinsic and extrinsic motivation of WUS to carry out IVA examinations. The type of research used in this study is quantitative research with a quasi-experimental design with one group pretest-posttest. The research will be conducted at the Public Health Center of Denpasar City. The number of samples used as many as 120 people using the accidental sampling method. The research instrument used a questionnaire. Hypothesis test using the t-paired test. The findings showed that the provision of online-based cervical cancer prevention health education in the form of video and chat IVA WhatsApp effectively increased motivation to carry out IVA examinations.

**Keywords:** Cervical Cancer, WUS, IVA, online-based.

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## INTRODUCTION

Cancer is a significant health problem for people around the world, one of which is cervical cancer. It is a malignancy of the cervix and is categorized as the second-highest globally and in Indonesia. The incidence of this disease is almost 80% of cases occur in poor and developing countries, half of which end in death. More than 70% of cervical cancer cases in Indonesia are found at an advanced stage (Rochmi, 2011).

The incidence of cervical cancer in developed countries has decreased sharply. In the United States, in the last 50 years, the incidence of the disease has reduced by 70%. This condition occurs because of the early detection program and good management in disease management. On the other hand, this disease has not decreased; in fact, it has increased. In Indonesia, the current incidence of cervical cancer is 17.6/100,000 thousand women. In Bali, the incidence of cervical

cancer at a younger age. In the 1980s, the average age was 52.5 years, while in 2010, the average age of people living with cervical cancer was getting younger, namely 39.2 years (Rasjidi in Sumantri and Hidayah, 2013).

Cervical cancer is a hazardous disease; therefore, it is essential to take action and prevent it to reduce the incidence (Ningrum and Fajarsari, 2013). (Ministry of Health RI, 2018). The IVA test is a cervical cancer screening method using a 3b-5% acetic acid solution on the cervix and sees the color changes after applying smears to know the presence of dysplastic cancer cells (Pakkan, 2017). The IVA test is a straightforward medical procedure. And simple but very important carried out at all service levels by trained personnel, including midwives (Sawitri and Sunarsih, 2018).

Fertile Age Woman (WUS) is the target of the IVA examination. The IVA test is significant to find out the signs and symptoms of cervical cancer, but this is unbalanced with the awareness of WUS doing the IVA test (Septianingrum, 2017). Bali Province is one of the provinces in Indonesia with meager IVA test participation, namely 16.63% of the existing target (Ministry of Health, RI, 2018). In Midwives, it is known that most of the fertile age women in the South Denpasar area have not carried out a Visual Acetic Acid (IVA) inspection. Some reasons by the community, among others, there is a fear if it turns out that a disease is found. There is an assumption from the community that if the examination findings are found to be positive, it is considered to have cancer. However, there is some WUS who routinely carry out IVA examinations.

One way of providing health education today that is effectively applied today is using online media. The provision of online health education is believed that can increase people's motivation to seek health services. Online-based cervical cancer prevention is a learning tool for patients through online sources and online media that helps patients get the latest data or information related to cervical cancer prevention and is displayed attractively. The application that will be used can be social media such as Whatsapp, LINE, Facebook, Twitter, Instagram, Youtube, etc. Based on the findings of the 2019 BPS (Central Statistics Agency) survey, it was found that the most WhatsApp users.

Based on the description above, this research is intended to determine the effectiveness of increasing intrinsic and extrinsic motivation to carry out IVA examinations to conduct IVA examinations.

## METHOD

This study employed a pre-experimental design study with a one-group pre-post test design approach carried out from March to August 2021. The research sample was 120 people through the Accidental Sampling technique based on inclusion and exclusion criteria. The data were collected through a questionnaire. Researchers conducted a normality test, and hypothesis testing was carried out using the t-paired test.

## FINDING AND DISCUSSION

### The intrinsic and extrinsic motivation of fertile age women to carry out IVA examinations before online-based cervical cancer prevention

In the following, Table 1 would present a statistical description of intrinsic and extrinsic motivation before online-based cervical cancer prevention.

**Table-1: Statistical Description of Intrinsic And Extrinsic Motivation Pre-Test**

Variables	Mean
Intrinsic Motivation	7.025
Extrinsic Motivation	6.162
Motivation	21.29

Based on Table 1, the average value of intrinsic motivation includes 7.025 and extrinsic motivation of 6.162. Overall motivation and prior online-based cervical cancer prevention health education in video and chat IVA WhatsApp was 21.291.

### The intrinsic and extrinsic motivation of fertile age women to carry out IVA examinations after online-based cervical cancer prevention

In the following, Table 2 will present a statistical description of intrinsic and extrinsic motivation after online-based cervical cancer prevention.

**Table-2: Statistical Description of Intrinsic And Extrinsic Motivation Post-Test**

Variables	Mean
Intrinsic Motivation	9.991
Extrinsic Motivation	9.070
Motivation	29.46

Based on Table 2, it could be seen that the average value of intrinsic motivation after treatment was 9.991 and extrinsic motivation was 9.070. Overall motivation and extrinsic after online-based cervical cancer prevention health education in video and chat IVA WhatsApp with 29.46.

### The effectiveness of online-based cervical cancer prevention in increasing the intrinsic and extrinsic motivation of fertile age women to carry out IVA examinations

The following table shows the effectiveness of online-based cervical cancer prevention in increasing fertile's intrinsic and extrinsic motivation to carry out IVA examinations.

**Table-3: The Comparison of Descriptive Statistical of Motivation Pre-Test and Post-Test**

Intrinsic and Extrinsic Motivation	Mean	P-value
Pre (Before)	21,29	0,00
Post (After)	29,46	

Before testing the hypothesis, the normality test was priorly tested using the Kolmogorov Smirnov test. It was known that the motivation variable (Pre) was 0.144 and post (0.199) because the value was above 0.05. It could be stated that the data were normally distributed. Then hypothesis testing was carried out using the parametric t-paired test.

Based on Table 3, it could be informed that the average value of intrinsic and extrinsic motivation before online-based cervical cancer prevention health education in the form of video and chat IVA WhatsApp was 21.29. After online-based cervical cancer prevention health education in video and chat IVA WhatsApp, it increased to 29.46. The findings of statistical testing were known that the value of  $p = 0.000 \leq 0.05$ , which means it was significant. In other words, the hypothesis was proven true, namely that the provision of online-based cervical cancer prevention health education in the form of video and chat IVA WhatsApp effectively increased motivation.

## DISCUSSION

### **The intrinsic and extrinsic motivation of fertile age women to carry out IVA examinations before online-based cervical cancer prevention**

Based on the findings of data processing, it could be seen that the average value of intrinsic motivation includes self-motivation with an average of 4.983, knowledge of 9.06. In contrast, extrinsic motivation has an affordability of 3.25 and staff support of 3.98. Overall motivation and extrinsic before online-based cervical cancer prevention health education in video and chat IVA WhatsApp with 21.291. Intrinsic motivation was 7.025, and extrinsic motivation was 6.162. Based on the value range of the research findings between 11 to 33, classified into three categories, it could be stated that the average value of 21.291 had relatively high motivation because it was in the range of 18.3 - 25.6.

The motivation was an impulse contained in a person to make changes in behavior to meet their needs better. It occurs when someone desired and was willing to carry out an activity or action to achieve specific goals (Karlianti, 2016). According to the researcher, the high motivation of respondents about preventing cervical cancer before being given treatment could be caused by the fact that respondents, when conducting health checks at the Puskesmas, sometimes receive information about cervical cancer from health workers.

The findings of this study were in line with the conclusions of the research conducted by Nurjana (2016). It concerning the Effect of Cervical Cancer Counseling on the Motivation of Women of Childbearing Age for Acetic Acid (IVA) Visual Inspection Tests at the Mantrijeron Health Center Yogyakarta, which shows the motivation of WUS to carry out IVA examinations before being given health education by the lecture method was reasonably sufficient with 33.3%.

### **The intrinsic and extrinsic motivation of fertile age women to carry out IVA examinations after online-based cervical cancer prevention**

Based on the findings in data processing, the average value of intrinsic motivation includes self-

motivation was 6.62, knowledge was 13.35, while extrinsic motivation has affordability was 4.78, and staff support was 4.70. The overall motivation and extrinsic motivation after being given online-based cervical cancer prevention health education in the form of video and chat IVA WhatsApp was 29.46, intrinsic motivation was 9.991, and extrinsic motivation was 9.070. Based on the value range of the research findings between 11 to 33 that classified into three categories, it could be stated that the average value of 29.46 it categorized to be relatively high motivation because it was in the range of 25 - 33.

The process of health education about cervical cancer in this study aims to foster a mother's motivation to perform a visual inspection test of acetic acid (IVA). One of the efforts is to increase public knowledge through health education or promotion. Health education was an activity that was carried out by spreading messages, instilling confidence. Hence, the public was aware, knows and understands, and willing and able to make recommendations related to health (Machfoedz, 2008). The extension method was considered more effective than other methods to increase knowledge and the community's ability to maintain their health and improve their health.

Based on the findings of research conducted at the Denpasar Health Center, the average age of the respondents was 31.34. The period was one of the factors that influenced motivation where in that motivation there was a level of knowledge including the ability to capture in receiving the material given. Respondents would be more ready to receive information at reproductive age and begin to weaken with age.

The level of education was also one of the factors that could affect the motivation of WUS to carry out an IVA examination. Through the findings of this study, most of the respondents had undergraduate education, with 59 (49.2%) respondents. The level of education dramatically affects a person's motivation to do something. Respondents who had a low level of education would have difficulty recognizing health problems that affect their motivation. Following research conducted by Ningrum & Fajarsari (2012), 22 (62.9%) respondents with primary education were motivated to participate in a moderate IVA. WUS with secondary education had a high motivation to follow IVA with 25 (61.0%) respondents. WUS who were highly educated had high motivation with IVA with 13 (68.4%) respondents. This research showed that the higher the level of education, the higher the motivation. Most of the respondents' occupations are self-employed, with 35 (52.2%) respondents.

Work is one of the factors that could affect a person's level of knowledge. In terms of the type of work that often interacts with other people, they had

more knowledge than people without interaction with other people (Nurjana, 2016). In this study, health education was given to WUS online, namely video playback with the theme of early detection of cervical cancer with the IVA method and chat facilities IVA Whatsapp. Using audio-visual, health education was one method that could package the information provided to be more exciting and easy to understand. The human brain understands knowledge derived from the reading process by 10% of what is read, 20% of what is seen, and 50% of what is heard and seen. Therefore, if someone was given knowledge with the proper media guidance, it could increase the interest in understanding the information provided (Nurjana, 2016).

Suppose the respondent already understands the information provided. In that case, the respondent's motivation will increase because one of the factors increasing a person's motivation was the level of knowledge possessed by the respondent. Based on the Denpasar Health Center information, the officers of public health centers have only provided health promotion with the lecture method and have never used audio-visual media. However, according to research conducted by Haryoko (2012) on the effectiveness of using audio-visual media as an alternative to optimizing the learning model, learners who use audio-visual media were better than learning through conventional approaches (lectures).

Based on the study's findings before being given treatment, the average value of respondents was 21.29, while after being given treatment, the average value increased to 29.46. This indicated an increase in motivation to carry out IVA examinations after being given health education about early online detection of cervical cancer in the form of video and chat IVA Whatsapp.

The findings of this study are in line with the findings of research conducted by Nurjana (2016) concerning the Effect of Cervical Cancer Counseling on the Motivation of Fertile Age Women for the Visual Inspection Test of Acetic Acid (IVA) at the Mantrijeron Health Center Yogyakarta which shows there was a significant difference between motivation before and after cervical cancer health education. This finding was demonstrated from the results of statistical tests with the Wilcoxon signed-rank test obtained  $p$ -value = 0.000.

## CONCLUSION

The average value of intrinsic and extrinsic motivation before online-based cervical cancer prevention health education in the form of video and chat IVA Whatsapp is 21.29. Moreover, after online-based cervical cancer prevention health education in video and chat IVA Whatsapp, the average increased to 29.46. The treatment through online-based cervical cancer prevention health education in the form of video

and chat IVA WhatsApp effectively increases motivation.

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