

Telenursing for Cancer Early Detection and Prevention

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Abstract. The increasing incidence and prevalence of cancer in the world is a global problem that requires definitive efforts to prevent it through community empowerment. The 2018 cancer incidence rate in the world is 14.1 million cases with a death rate of 8.2 million and this figure is expected to continue to increase every year. The prevalence of cancer in the province of Bali is 2.3%, this incidence continues to increase. Prevention and early detection of cancer will reduce both cancer morbidity and mortality. The purpose of this activity is to empower the community through the utilization of science and technology and telenursing in the prevention and early detection of cancer in Kedisan Village, Tegalallang, Gianyar. The method used is training and simulation of the use of virtual meeting media regarding the prevention and early detection of cancer in youth committee members and members. The results of the activity show that there is a significant difference in the knowledge of respondents before and after training and simulation with a value of $p = 0.001$, there is an increase in knowledge before and after training and simulation. This method can be a community empowerment method in preventing cancer, especially in the younger generation. Cancer prevention can be done by conducting cancer prevention training and simulations using various virtual methods

Index Terms— prevention, early detection, cancer, telenursing

I. INTRODUCTION

The incidence and prevalence of cancer continues to increase in the world, in Indonesia and in Bali. Cancer morbidity and mortality are also increasing. Lack of knowledge about prevention and early detection, delay in diagnosis of cancer has resulted in increased mortality, poor prognosis, and decreased survival rates [2, 15].

Various cancer prevention can be carried out and taught early on to the community through the younger generation. The younger generation who gather in youth organizations such as Sekeha Teruna Teruni (STT) are able to master technology and are very good at being used as carriers of information both for fellow young people and for their families. Telenursing is a technology in nursing that can be

used in the prevention of both primary, secondary and tertiary diseases [5,7,10].

Primary prevention is the best way to reduce mortality, morbidity and the physical, psychological and financial burden of chronic diseases including cancer. This prevention can be done early on by involving the participation of the younger generation through a youth organization that exists in every banjar or hamlet in Bali called Sekeha Teruna Teruni (STT) [13].

Many young people are able to access social media but have not used it as a tool to find disease prevention information. Current technological developments, such as the use of virtual meeting, have not been able to be used properly by the younger generation. Telenursing provided using social media and virtual meeting platforms can help the younger generation get information about cancer prevention. They can also disseminate this information to

other community groups and even work with health cadres in the village

II. METHOD

The method used is training and simulation of the use of virtual media meetings regarding the prevention and early detection of cancer in young generation. Counseling provides knowledge about science and technology, understanding and use of the zoom and google meet platforms. Simulation by participating in early detection and prevention of cancer webinars through taught platforms, forming social media groups in the form of WA groups by adding health cadres and primary health care providers, education, early detection and prevention of cancer through telenursing-based groups is expected to be an innovative and sustainable method for forming young generation of cancer care in Kedisan village. Prevention and treatment of early detection of cancer in an innovative, independent and telenursing-based manner is expected to help reduce breast cancer morbidity and mortality in Gianyar, Bali and Indonesia.

The data related to the knowledge prevention before and after intervention were collected by questionnaire. Evaluation of whole process was done by focus group discussion on virtual meeting.

III. RESULT

The research was conducted on the younger generation in Kedisan Village, where this young generation is expected to be part of the population who will actively carry out various disease preventions including prevention and early detection of cancer.

Respondent characteristic data in this study are as follows.

TABLE I.
CHARACTERISTICS OF RESPONDENTS (N=60)

No	Items	Amount (n)	Percentage (%)
Gender			
1	Male	20	40
2	Female	30	60
Age			
1	15-19	14	28
2	20-24	29	58
3	25-30	7	14
Education			
1	Elementry School	2	4
2	Junior High School	12	24
3	Senior High School	27	54
4	College	9	18
Accessed Social Media			
1	Whatsaap	50	100
2	Face book	45	90
3	Instagram	40	80
4	Etc	5	10
Level of Knowledge			
Before intervention			
1	Good	10	20
2	Enough	13	26

3	Bad	27	54
After intervention			
1	Good	19	38
2	Enough	27	54
3	Bad	4	8

Analysis of knowledge before and after education and simulations about cancer prevention can be seen in the following table:

TABLE II
POSTTEST RESILIENCE LEVEL

Mean Pre	Mean Post	p_Value
58,00	81.80	P=0.0001

Based on the results of the activity, there are several important things, namely: all members of youth organizations use social media as a means of communication, a place to find entertainment and get information. This can be used as a telehealth media in providing health information and education, especially in cancer prevention. Social media and the use of virtual meetings through social media can be used as educational tools to carry out health promotion as a preventive mechanism in cancer prevention [2,6,7,12].

There is a significant difference in the knowledge of the respondents before and after the simulation using the telenursing method. This method uses technology as a medium to provide health services, in this case preventive and promotive services. Cancer prevention can be carried out using telehealth-based educational methods by utilizing social media which has been used routinely by members of youth organizations.

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Combining technology with nursing in the form of telenursing is something that can facilitate the community to get appropriate information for disease prevention, especially chronic diseases such as cancer.

The results of this study are in accordance with previous studies that telenursing is a comfortable intervention for patients, can be used at any time, without being hindered by distance and time, effective and efficient. Telenursing also facilitates patients to fulfill their psychological needs, where

a person can express feelings without having to show himself directly to health workers [11,12,13].

IV. CONCLUSION

The simulation method by telenursing can be used to provide promotion and prevention to the younger generation related to cancer prevention. The use of this method is also very effective when used together with several social media so that the younger generation who are more sensitive to changes in technology and are more innovative in the use of technology can become community groups that actively carry out cancer prevention and conduct education for cancer prevention.

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