

THE EFFECT OF MEDIA CADRES HANDBOOK ON BREAST CANCER AND BREAST SELF-EXAMINATION (BSE) ON KNOWLEDGE AND SKILLS OF HEALTH CADRES IN TAMANSARI DISTRICT, TASIKMALAYA CITY

Sariestya Rismawati¹

Yulia Herliani²

Laila Putri Suptiani³

^{1,2,3}Department of Midwifery, Poltekkes Kemenkes Tasikmalaya

e-mail: sariestya77@gmail.com¹, nadzif.ahnaf@gmail.com², lailaputrisuptiani@gmail.com³

*Correspondence: lailaputrisuptiani@gmail.com

Submitted: 29 January 2022, **Revised:** 10 February 2022, **Accepted:** 20 February 2022

Abstract. Health promotion about Breast Cancer and its Early Detection can be done by health cadres. There are still many health cadres who do not understand breast cancer and how to detect breast cancer early. The COVID-19 Pandemic conditions that limit direct interaction have limited the process of developing the ability of cadres in this case to increase knowledge, so health education is needed with media that is easy to understand and practical so that it can be used flexibly anywhere and anytime. This cadre handbook has passed due diligence from material experts, media experts and linguists, as well as passed a small-scale test on representatives of health cadres in independent research with the results very feasible to use. Breast Cancer and Breast Self-Examination (BSE) on Cadre Knowledge and Skills. The design used is a quasi-experimental design with a *one group pretest-posttest design*. The sample in this study was health cadres in Tamansari District, Tasikmalaya City. The sampling technique used is purposive sampling. The research variables are knowledge and skills. The data used are primary data in the form of questionnaire results and observations. Data analysis was carried out using two analytical techniques, namely univariable and bivariable analysis. The bivariable analysis used was to determine the effect of the cadre handbook on knowledge and skills using the Wilcoxon test. There is an effect of cadre handbooks on knowledge and skills of cadres about breast cancer and breast self-examination ($p=0.000$). The effect of the cadre handbook on breast cancer and Breast Self-Examination (BSE) on the knowledge and skills of health cadres in Tamansari District, Tasikmalaya City.

Keywords: handbook of health cadre; breast cancer; breast self-examination (BSE)

INTRODUCTION

Cancer is a condition in which cells have lost their normal control and mechanism, resulting in abnormal, fast and uncontrolled growth, and threatens the lives of individual sufferers ([Risdayanti & Herlina, 2020](#)). Based on Basic Health Research ([Germano, Swiss, & Casaccia, 2010](#)), the prevalence of tumor/cancer in Indonesia is 4.3 per 1000 population and cancer is the 7th leading cause of death (5.7%) after stroke, TB, hypertension, injury, perinatal and DM. The incidence of breast cancer in Indonesia is 42.1 per 100,000 population with an average death rate of 17 per 100,000. Data from the West Java Provincial Health Office in 2009, there were 594 cases of breast cancer, while data from the Tasikmalaya City Health Service in 2020, it was found that 47 people had breast cancer and 2 people died (Tasikmalaya City Health Office, 2020). According to ([Hidayati, Salawati, & Istiana, 2013](#)); ([Tahmooresi, Afshar, Rad, Nowshath, & Bamiah, 2018](#)) breast cancer can be found at an early stage by means of early detection. This detection is done by doing a "breast self-examination" or what is known as BSE.

Community education and knowledge is an important part that must be improved to improve this condition ([Thiel et al., 2013](#)); ([Cannon et al., 2016](#)). To accelerate the achievement of these improvement goals, health education and knowledge dissemination are needed ([Green, Ottoson, García, Hiatt, & Roditis, 2014](#)). Health promotion about Breast Cancer and its Early Detection can be done by health cadres. From the preliminary studies that

have been carried out, it turns out that there are still many health cadres who do not understand about breast cancer and how to detect breast cancer early, so they have difficulty in socializing this problem to the public, especially WUS. The COVID-19 Pandemic conditions that limit direct interaction have limited the process of developing the ability of cadres in this case to increase knowledge ([Iyengar, Upadhyaya, Vaishya, & Jain, 2020](#)); ([Tshishonga, 2014](#)), so health education is needed with media that is easy to understand and practical so that it can be used flexibly anywhere and anytime. To minimize these limitations, a guide book for cadres has been compiled that covers the topic of breast cancer and breast self-examination so that cadres can more easily understand and provide education to women of childbearing age ([Browne et al., 2018](#)); ([Connelly, Lauber, Niederdeppe, & Knuth, 2014](#)); ([Mitchell & Fantasia, 2016](#)). This cadre handbook has passed due diligence from material experts, media experts and linguists, as well as passed a small-scale test on representatives of health cadres in independent research with the results very feasible to use ([Merriel et al., 2021](#)); ([Van Ginneken et al., 2017](#)). As a follow-up to the independent research, further research is needed to see the effect of the media that has been compiled ([Yu, Duan, & Cao, 2013](#)). Based on the description of the background, the authors are interested in conducting research on "The Effect of Cadre Handbook Media on Breast Cancer and Breast Self-Examination (BSE) on Knowledge and Skills of Health Cadres in Tamansari District, Tasikmalaya City".

The problem in this study is whether there is an effect of the cadre handbook on breast cancer and Breast Self-Examination (BSE) on the knowledge and skills of health cadres in Tamansari District, Tasikmalaya City.

The purpose of this study was to determine the effect of the cadre handbook on breast cancer and Breast Self-Examination (BSE) on the knowledge and skills of health cadres in Tamansari District, Tasikmalaya City.

METHODS

This study aims to determine the effect of the Cadre Handbook on Breast Cancer and Breast Self-Examination on Cadre Knowledge and Skills with a quasi-experimental design with a one group pretest-posttest design ([Azlina, Setyowati, & Budiati, 2021](#)). This research was conducted in April-June 2021 in Tamansari District, Tasikmalaya City. The population in this study were all health cadres in Tamansari District, Tasikmalaya City. The sample was taken by purposive sampling,

with the criteria that health cadres were recorded as active in activities, physically and mentally healthy. The data used are primary data in the form of questionnaire results and observations. Data analysis was carried out using two analytical techniques, namely univariable and bivariable analysis. Bivariable analysis used is the Wilcoxon test analysis.

RESULTS AND DISCUSSION

The research was carried out according to the plan. Prior to health education, all targets were given pre-test questions to determine the extent of knowledge about breast cancer and breast self-examination as well as BSE skills, then after the activity, post-test questions were given to see if there was an increase in knowledge after health education.

1. Knowledge of Cadres about Breast Cancer

Based on the results of the *pre-test* and *post-test* it can be seen in the table below:

Table 1. Frequency Distribution of Cadre Knowledge about Breast Cancer in Tamansari District, Tasikmalaya City in 2021

No	Category	Pre-test		Post-test	
		F	%	F	%
1	Good	3	10	23	77
2	Enough	17	57	7	23
3	Less	10	33	0	0
TOTAL		30	100	30	100

From table 1 it can be seen that the knowledge of health cadres about breast cancer and breast self-

examination before health education is carried out is in the good category as many as 3 people (10 %), enough

category is 17 people (57%) and less category is 10 people (33%), while knowledge of cadres after health education is in good category as many as 23 people (77%) and enough category 7 people (23%). According to Kurniasih (2014), books act as sources of information that are communicative, interesting and not boring. This can be seen from the results of the pre-test knowledge of health cadres about breast cancer that there is an increase in knowledge.

The implementation of community-based social support efforts through increasing knowledge and the active

role of Posyandu cadres in socializing breast cancer health cadres are expected to help disseminate the knowledge and skills they have acquired to the wider community so that public knowledge about cervical cancer and breast cancer and their prevention increases. Public awareness needs to be increased so that they are willing to carry out early detection of cervical cancer and breast cancer on a regular basis.

2. Cadre Skills in Performing BSE

Based on the results of the pre test and post test assessments can be seen in the table below:

Table 2. Frequency Distribution of Cadre Skills in conducting BSE in Tamansari District, Tasikmalaya City in 2021

No	Category	Pre-test		Post-test	
		F	%	F	%
1	Good	0	0	30	100
2	Enough	0	0	0	0
3	Less	30	100	0	0
TOTAL		30	100	30	100

From table 4.2 it can be seen that the skills of health cadres in performing BSE before health education were implemented were in the less category as many as 30 people (100%), while cadre skills after health education are in the good category as many as 30 people (100%).

Books have a role not only to present essential and strategic information, but also to be useful as problem solving tools. In this case, the cadre handbook is used as a guidebook/guideline to convey a topic regarding breast self-examination.

From the results of this study, it can be seen that there is a change in the skills of health cadres in carrying out BSE.

In addition, people who are trained by health cadres are able and aware to carry out BSE examinations as an early detection of breast cancer. With the increasing knowledge, awareness, and ability of the community to carry out early detection of cancer, it is hoped that the morbidity and mortality rates of cervical cancer and breast cancer can decrease.

3. Effect of the Cadre Handbook on Breast Cancer and BSE on the knowledge and

skills of Health Cadre in Early Detection of Breast Cancer.

Before the results of the influence

test were carried out, a normality test was carried out using *Shapiro Wilk*, based on the analysis, it was obtained:

Table 3. Normality Test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistics	df	Sig.	Statistics	df	Sig.
Knowledge_Pre	137	30	156	963	30	379
Knowledge_Post	189	30	008	897	30	007
Skill_Pre	537	30	000	275	30	000
Skill_Post	253	30	000	848	30	001

a. Lilliefors Significance Correction

Based on this analysis, the knowledge data is normally distributed while the data for skills is not normally distributed.

After the normality test was carried out, the effect was tested using Wilcoxon analysis. From the results of

the analysis, it was obtained:

The independent variables in this study consisted of knowledge and skills. The relationship between independent variables is shown in the following table.

Table 4. Relationships Between Variables

Relationship between Variables	Correlation Coefficient (R _w)	Value p
Knowledge with cadre handbooks	-4.813	0.000
Skills with cadre handbooks	-4.850	0.000

Information: R_w= *Wilcoxon*

Based on the table, it is known that Asymp Sig (2 -tailed) is 0.000. Because the value of 0.000 is smaller than <0.05, it can be concluded that there is a difference between the results of knowledge and skills for the pre-test and post-test, so it can be concluded that there is an effect of using the Cadre Handbook on Breast Cancer and BSE on the knowledge and skills of Health Cadres. in Early Detecting Breast

Cancer.

Handbooks are also known as manuals or manuals. Handbooks usually contain detailed and technical descriptions of a particular field. A cadre handbook is a guidebook or guide for cadres to convey a certain topic. The cadre handbook in this study is a guide book that can be used by health cadres to provide health promotion or information to women of childbearing age about breast cancer

and breast self-examination (BSE).

Community involvement as a community where breast cancer clients live is certainly very necessary in an effort to provide social support to breast cancer clients. One of the efforts to improve the quality of life of breast cancer clients is the formation of social support from the community where breast cancer clients are located. Several studies state that perceived adequate social support is an important factor for a better quality of life and lower levels of psychological distress. This reflects the importance of paying attention to activities that enhance and maintain social support systems for breast cancer patients (Witdiawati, 2018).

Program efforts and social support from the community are certainly needed to improve the quality of life of cancer patients (Witdiawati, 2018). Thus, the contribution of families as providers of care and strengthening the capacity of health cadres is very important. Lack of exposure to the public and health cadres about breast cancer is predicted to be the cause of the lack of social support for clients with breast cancer. This support will appear along with the increasing knowledge and attitudes of the community towards the problem of breast cancer. Therefore, it is necessary to carry out an activity to increase the capacity of cadres in recognizing and preventing breast cancer so that community-based social support can be increased. In the Ottawa Charter strategy, it is stated that one of the

efforts for health promotion is to strengthen community *action*. Through the involvement and empowerment of the community (health cadres) it is hoped that social support for breast cancer clients can increase.

CONCLUSIONS

There is an effect of the cadre handbook on breast cancer and Breast Self-Examination (BSE) on the knowledge and skills of health cadres in Tamansari District, Tasikmalaya City. There is an increase in the knowledge about breast cancer and skills of cadres (breast self-examination/ BSE). The cadre handbook in this study is a guide book that can be used by health cadres to provide health promotion or information to women of childbearing age about breast cancer and breast self-examination (BSE). Through the involvement and empowerment of the community (health cadres) it is hoped that social support for breast cancer clients can increase.

REFERENCES

- Azlina, Fitri Ayatul, Setyowati, Setyowati, & Budiati, Tri. (2021). Female health education package enhances knowledge, attitudes, and self-efficacy of housewives in cervical cancer screening. *Enfermería Clínica*, 3(2), S215–S219.
<https://doi.org/10.1016/j.enfcli.2020.12.025>
- Browne, Alacoque L., Charmsaz, Sara, Varešlija, Damir, Fagan, Ailis, Cosgrove, Nicola, Cocchiglia, Sinéad, Purcell, Siobhan, Ward, Elspeth, Bane, Fiona, & Hudson, Lance. (2018). Network
-

- analysis of SRC-1 reveals a novel transcription factor hub which regulates endocrine resistant breast cancer. *Oncogene*, 3(5), 2008–2021.
- Cannon, Danielle, Buys, Nicholas, Sriram, Krishna Bajee, Sharma, Siddharth, Morris, Norman, & Sun, Jing. (2016). The effects of chronic obstructive pulmonary disease self-management interventions on improvement of quality of life in COPD patients: A meta-analysis. *Respiratory Medicine*, 2(2), 81–90.
- Connelly, Nancy A., Lauber, T. Bruce, Niederdeppe, Jeff, & Knuth, Barbara A. (2014). How can more women of childbearing age be encouraged to follow fish consumption recommendations? *Environmental Research*, 3(5), 88–94. <https://doi.org/10.1016/j.envres.2014.08.027>
- Germano, Isabelle, Swiss, Victoria, & Casaccia, Patrizia. (2010). Primary brain tumors, neural stem cell, and brain tumor cancer cells: where is the link? *Neuropharmacology*, 5(6), 903–910. <https://doi.org/10.1016/j.neuropharm.2009.12.019>
- Green, Lawrence W., Ottoson, Judith M., García, César, Hiatt, Robert A., & Roditis, Maria L. (2014). Diffusion theory and knowledge dissemination, utilization and integration. *Frontiers in Public Health Services & Systems Research*, 3(1).
- Hidayati, Aprilia, Salawati, Trixie, & Istiana, Siti. (2013). Pengaruh pendidikan kesehatan melalui metode ceramah dan demonstrasi dalam meningkatkan pengetahuan tentang kanker payudara dan ketrampilan praktik sadari (Studi pada Siswi SMA Futuhiyyah Mranggen Kabupaten Demak). *Jurnal Kebidanan*, 1(1), 1–8. <https://doi.org/10.26714/jk.1.1.2012.1-8>
- Iyengar, Karthikeyan, Upadhyaya, Gaurav K., Vaishya, Raju, & Jain, Vijay. (2020). COVID-19 and applications of smartphone technology in the current pandemic. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*, 4(5), 733–737. <https://doi.org/10.1016/j.dsx.2020.05.033>
- Merriel, Abi, Dembo, Zione, Hussein, Julia, Larkin, Michael, Mchenga, Allan, Tobias, Aurelio, Lough, Mark, Makwenda, Charles, & Coomarasamy, Arri. (2021). Assessing the impact of a motivational intervention to improve the working lives of maternity healthcare workers: a quantitative and qualitative evaluation of a feasibility study in Malawi. *Pilot and Feasibility Studies*, 7(1), 1–15.
- Mitchell, Allison, & Fantasia, Heidi Collins. (2016). Understanding the effect of obesity on fertility among reproductive-age women. *Nursing for Women's Health*, 2(4), 368–376. <https://doi.org/10.1016/j.nwh.2016.07.001>
- Risdayanti, Risdayanti, & Herlina, Nunung. (2020). Hubungan Antara Faktor Psikososial dan Faktor Lingkungan dengan Kualitas Hidup Pasien Kanker yang Menjalani Kemoterapi di RSUD Abdul Wahab Sjahranie Samarinda. *Borneo Student Research (BSR)*, 1(3), 2118–2129.
- Tahmooresi, M., Afshar, A., Rad, B. Bashari,
-

Nowshath, K. B., & Bamiah, M. A. (2018). Early detection of breast cancer using machine learning techniques. *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)*, 2(3), 21–27.

Thiel, Chase E., Connelly, Shane, Harkrider, Lauren, Devenport, Lynn D., Bagdasarov, Zhanna, Johnson, James F., & Mumford, Michael D. (2013). Case-based knowledge and ethics education: Improving learning and transfer through emotionally rich cases. *Science and Engineering Ethics*, 2(1), 265–286.

Tshishonga, N. (2014). Cadre deployment and its implications on service delivery in South Africa: A human development capability approach. *Journal of Public Administration*, 4(3), 891–908.

Van Ginneken, Nadja, Maheedhariah, Meera S., Ghani, Sarah, Ramakrishna, Jayashree, Raja, Anusha, & Patel, Vikram. (2017). Human resources and models of mental healthcare integration into primary and community care in India: Case studies of 72 programmes. *PloS One*, 2(6), 178–194

Yu, Yang, Duan, Wenjing, & Cao, Qing. (2013). The impact of social and conventional media on firm equity value: A sentiment analysis approach. *Decision Support Systems*, 5(4), 919–926.

<https://doi.org/10.1016/j.dss.2012.12.028>

