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Empowering Generation Z as Agents of Change and Eliminating Cancer Stigma Through Digital Campaigns

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ABSTRACT

Public stigma towards cancer patients remains high, negatively affecting their psychological well-being, leading to depression, anxiety, and reduced self-esteem. Stigma is influenced by knowledge levels, and digital campaigns serve as a tool to reduce it by disseminating accessible and reliable information. PalliApis Care, an organization leveraging social media platforms to educate the public about cancer, conducted this study targeting Generation Z. The campaign was implemented through a quantitative Zoom meeting using a one-group pretest-posttest design. A total of 200 participants from across Indonesia joined the campaign, with a majority being women (87.8%). Participants were predominantly aged 18-22 years (80.2%), followed by those aged 23-27 years (19.1%), and 12-17 years (0.8%). The pretest average score was 70.00, while the posttest score increased to 82.96, showing a knowledge gain with a mean difference of 12.96 ($p = 0.000$, $p < 0.05$). The results confirmed that social media-based digital campaigns effectively raise awareness and shift public perceptions of cancer stigma. Challenges related to misinformation were addressed through digital literacy training for Generation Z. In addition to enhancing knowledge, the campaign provided psychological support to cancer patients by sharing survivor narratives. Generation Z acted as agents of change, using digital skills to spread accurate information and foster an inclusive environment for patients. This program demonstrates that engaging Generation Z in health campaigns not only improves health literacy but also contributes to sustainable efforts in reducing social stigma. The program's long-term impact lies in the continuous involvement of Generation Z in public health initiatives.

INTRODUCTION

Cancer stigma remains one of the biggest challenges in global healthcare, especially in developing countries. This stigma not only affects social perceptions of cancer patients, but also has a direct impact on individuals' decisions to seek the care and support they need. Research has shown that cancer stigma often stems from fear, misunderstanding and cultural beliefs, leading to social discrimination and isolation for patients (İnan & Üstün, 2019; Oystacher et al., 2018). In many cases, myths such as cancer being considered an infectious disease or the result of personal moral failings exacerbate this discrimination, hindering optimal care (Kaya et al., 2018; Sealy, 2023).

The latest data from the World Health Organization (WHO) in 2022 shows that cancer continues to be one of the leading causes of death globally. There are 19.3 million new cases of cancer diagnosed worldwide, and cancer causes 10 million deaths every year. This figure reflects the increasing

prevalence of cancer due to factors such as population aging, unhealthy lifestyles, and increased exposure to environmental risk factors (WHO, 2022). In Indonesia alone, the incidence of cancer is also increasing with the number of new cases reaching 396,000 each year and the death rate from cancer reaching 234,000. This condition shows the urgency of prevention and early detection, especially among people who are still affected by the social stigma against this disease.

In recent decades, efforts to reduce cancer stigma through education and public awareness campaigns have grown rapidly, especially with the advent of digital technology. Social media and other digital platforms have become key tools in communicating health messages and changing the negative narrative about the disease (Zhang, 2023). Generation Z, known as the generation of "digital natives," has an important role to play in this transformation. Growing up with direct access to digital technology and social media, this generation is not only skilled in using these technologies, but also has a high social sensitivity to health issues, including cancer stigma (Mulawa et al., 2021).

Digital campaigns have proven to be effective in spreading the right information and touching on emotional aspects with narratives that a wider audience can relate to. According to (Huang et al., 2019), One of the key strengths of digital campaigns is their ability to actively engage young people in discussions about health issues. Narratives delivered through social media, such as personal stories about battling cancer, can trigger empathy and break down walls of social stigma. In this context, Generation Z acts as agents of change who are able to utilize social media to create positive social impact (Mwaka et al., 2015).

The major challenge faced in digital campaigns is the high potential for misinformation. The amount of false or misleading information on the internet is a major obstacle in providing accurate education about cancer. This particularly impacts Generation Z, who often face difficulties in sorting out valid information from non-credible ones (Hartog et al., 2020). For this reason, it is important to have a campaign strategy that does not only rely on visual and emotional narratives, but also prioritizes evidence-based education that can improve the overall health literacy of the community (Rao et al., 2019).

Cancer stigma not only impacts social and psychological aspects, but also affects patients' quality of life. Research shows that this stigma can worsen patients' emotional state, adding to their psychological burden and hindering their access to necessary care (Chu et al., 2020). Generation Z, with their proficiency in using digital technology, has the potential to help reduce this stigma through the dissemination of appropriate and supportive information through more inclusive health campaigns focused on patients' mental wellbeing (Reynolds & Pai, 2021).

One concrete form of efforts to empower Generation Z in overcoming cancer stigma is through community service activities focused on digital campaigns. This community service is designed to utilize the potential

of Generation Z as agents of change, where they can use their digital skills to contribute to spreading accurate information and eliminating negative stigma about cancer. This activity involves various campaign initiatives that are designed to be interactive and evidence-based, reaching not only their peers, but also the wider community.

The digital campaign carried out in this service activity includes the creation of informative content such as infographics, educational videos, and social media posts that present medical facts related to cancer, the importance of early detection, and available treatments. In addition, Generation Z is also trained to work with health influencers who have great influence on social media platforms, so that the messages conveyed can be more easily accepted by a wider audience (Mulawa et al., 2021).

The campaign also emphasizes the importance of sharing personal stories of cancer survivors, which can help change public perception. These stories not only provide real information about the fight against cancer, but also help to humanize the patient experience, so that audiences can more easily understand the impact of stigma and the importance of social support (Huang et al., 2019). By integrating a peer-based approach, the campaign aims to create a more supportive and inclusive environment for cancer patients, especially among the younger generation.

This service activity also provides training to Generation Z on how to sort out credible information from misinformation on the internet. Given the high potential of misinformation on social media, this training aims to improve their digital literacy, so that they can become a reliable source of information in digital health campaigns (Hartog et al., 2020). This community service activity aims to empower Generation Z as agents of change in eliminating cancer stigma, by utilizing the power of social media and structured digital campaigns. Through this initiative, it is hoped that Generation Z can play an active role in educating the public, changing negative perceptions about cancer, and creating positive and sustainable social impact.

METHOD

This activity was carried out by conducting community service to Generation Z by providing material on "The Role of Gen Z in Cancer Prevention Education".

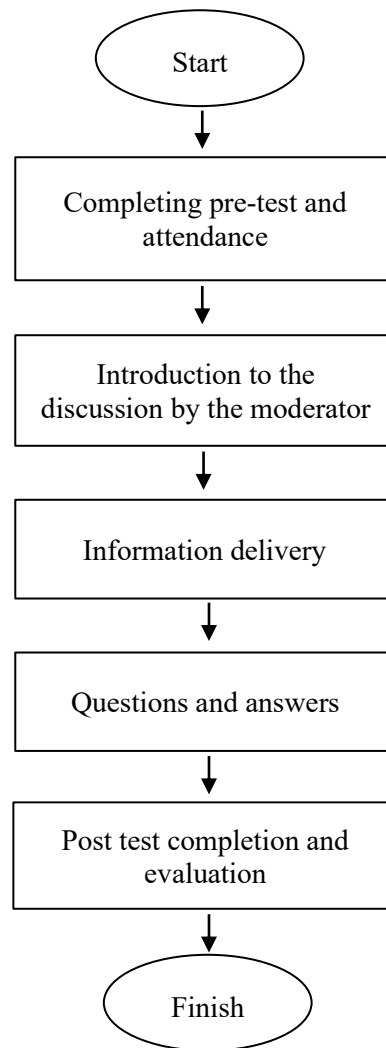


Figure 1. Activity Scheme

Activities are delivered online or online through zoom meetings. In this activity, the success of counseling will be measured using the one group pretest posttest design method. Quantitative data from pre-test and post-test results are obtained from a total of 200 participants who are all generation Z in Indonesia. The purpose of this activity is to empower Generation Z as agents of change in eliminating cancer stigma, by utilizing the power of social media and structured digital campaigns.

The measuring instrument used in data collection was a questionnaire consisting of questions related to the role of Gen Z in cancer prevention education. The questionnaire given to the participants consisted of 10 questions about the causes of cancer, keys to success in cancer treatment, risk factors that can increase the likelihood of developing cancer, and preventive measures that can be taken through a healthy lifestyle. In addition, the questionnaire also explored the health characteristics of Generation Z, challenges in

cancer education for this group, their role in health campaigns, and effective education strategies to reach Gen Z. The questionnaire questions were:

1. How does cancer occur?
2. What is the key to success in cancer treatment?
3. One factor that contributes to an increased risk of cancer is?
4. Some steps that can help prevent cancer through healthy living habits include?
5. What are the characteristics of Generation Z in the context of health?
6. The following are not challenges of cancer education in Gen Z, namely?
7. What is the biggest challenge of cancer education in Gen Z?
8. One of the roles of Gen Z in health campaigns is?
9. Through what means can Generation Z play a role as a health campaign change agent?
10. The following that are not effective education strategies for Gen Z are?

This community service activity consists of 3 stages. The first stage is the preparation stage, the second stage is the activity implementation stage, and the third stage is the activity evaluation stage.

The initial stage carried out was initial preparation including filling out pretests by participants to find out initial knowledge about the role of Gen Z in cancer prevention education.



Figure 2. Pre-test completion

(Source: Personal Document, 2024)

The second stage includes the implementation of activities is the presentation of counseling material on the role of Gen Z in cancer prevention education delivered by Alfi Syahri, founder of PalliApis Care.



Figure 3. Exposure of Extension Materials

(Source: Personal Documents, 2024)

The last stage includes the activity evaluation stage to determine the success rate of the presentation and socialization of the material with a question and answer session during the activity and an objective evaluation using a prepared questionnaire instrument measured before and after the activity (pre and post test).



Figure 4. Post-test completion

(Source: Personal Document, 2024)

RESULT AND DISCUSSION

Table 1 Frequency Distribution of Respondent Characteristics Based on Gender and Age.

Characteristic	N	%
Gender		
1. Male	16	12,2
2. Female	115	87,8
Total	131	100
Age		
1. 12 - 17 Years Old	1	0,8
2. 18 - 22 Years Old	105	80,2
3. 23 - 27 Years Old	25	19,1
Total	131	100

(Source: Analysis Results, 2024)

Based on table 1, it can be seen that the majority of respondents' gender is female with 115 respondents (87.8%) and male with 16 respondents (12.2%). Meanwhile, it is known that the age distribution of respondents varies from 12-27 years old. Table 1 shows that the majority of respondents were aged 18-22 years with 105 respondents (80.2%).

The main activities included the presentation of counseling materials to participants consisting of generation Z. This activity was conducted through a digital campaign. The outcomes of this activity were measured using questionnaire instruments before and after the activity.

Table 2. Mean Description Table and Bivariate Test of Pre and Post Test.

Variabel	Mean (±S.B.)	P-value
Knowledge		
<i>Pre test</i>	70,00	0,000
<i>Post test</i>	82,96	

(Source: Analysis Results, 2024).

The average result of the participants' knowledge was found to increase with a mean difference of 12.96 and from the pre and post-test analysis test using paired sample t-test, the p value of 0.000 was statistically significant ($p < 0.05$). This shows that digital campaigns involving Generation Z are able to significantly increase participants' knowledge and awareness. This finding reinforces the idea that empowering Generation Z in health campaigns can have positive results not only in terms of knowledge but also in influencing public perceptions related to health issues, especially cancer stigma.

Previous research has shown that social media and digital campaigns play an important role in changing perceptions and improving public health literacy (Mulawa et al., 2021). Digital-based campaigns allow emotional and informative narratives to be delivered more widely and quickly. Through social media

such as Instagram and TikTok, campaign participants can disseminate information easily and directly interact with the audience. This is very effective in bringing health messages closer to the public, especially when accompanied by personal testimonials from cancer survivors (Huang et al., 2019).

Generation Z has a unique role as a significant agent of change on various social issues, including changing the stigma related to cancer due to their characteristics that are very familiar with technology and social media. Having grown up amidst the development of digital technology, this generation has easy access to health information through social media and digital platforms and is accustomed to fast, visual-based interactions and communication. Through the use of technology, social media and social engagement, in addition to acting as recipients of information they also play a role in changing the stigma of cancer through structured digital campaign engagement and becoming health influencers by sharing educational content. Generation Z with high social sensitivity can identify crucial issues and spread positive messages through digital platforms. In accordance with previous findings, this generation grew up amidst technological developments and has unlimited access to health information, which accelerates their role as agents of change in health issues such as cancer stigma (Mwaka et al., 2015).

While digital campaigns have made a significant impact, challenges such as misinformation and fake news are still a major obstacle. Invalid or misleading information on the internet can confuse the public to the point that it can exacerbate existing stigmas. Based on this, digital literacy training in this service activity becomes very relevant to ensure that Generation Z can sort out credible information and disseminate correct content. This effort is important in building public trust in the campaign and preventing the negative impact of misinformation (Hartog et al., 2020).

In addition to increasing knowledge, the campaign also successfully created psychological support for cancer patients by introducing survivor narratives as part of the campaign strategy. These personal narratives help audiences understand the challenges faced by patients and dispel the negative perceptions that often arise due to social stigma. This is in line with (Chu et al., 2020) research that social support and positive narratives can reduce patients' isolation and improve their quality of life.

Generation Z's role in creating a more inclusive environment for cancer patients is also reflected in the peer-based campaign approach. This approach allows for more effective information dissemination as messages delivered through peers tend to be more easily received and followed. The campaign not only focuses on medical education but also emphasizes the importance of empathy and social support as part of the effort to eliminate stigma. Strong social support has been shown to help cancer patients feel more accepted and improve their psychological well-being (Reynolds & Pai, 2021).

Overall, this community service activity has proven that Generation Z can play an active role in reducing cancer stigma through an effective and inclusive digital campaign. By utilizing the power of social media

and involving narratives from real-life experiences, this campaign not only increases knowledge but also shapes more positive public perceptions. The resulting social impact is potentially sustainable, as Generation Z can continue to play an important role in future health campaigns. Through this approach, it is hoped that a more supportive community environment for cancer patients will be established as well as increased health literacy among the younger generation and the wider community.

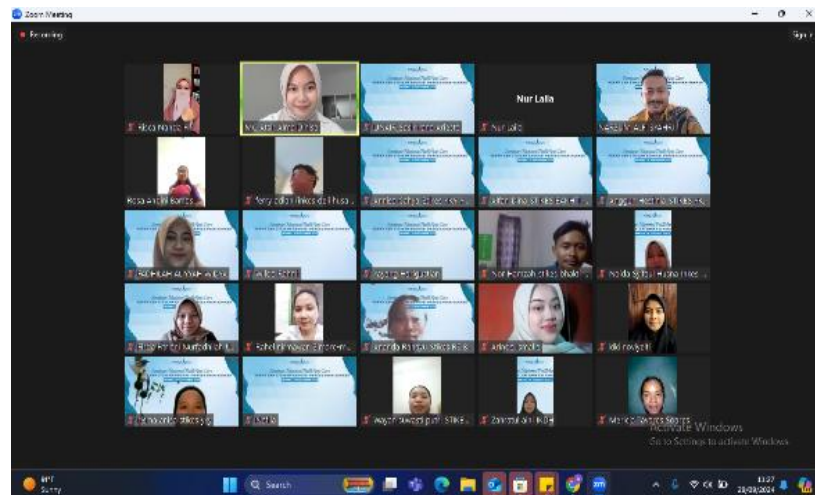


Figure 5. Activity Documentation
(Source: Personal Documents, 2024)

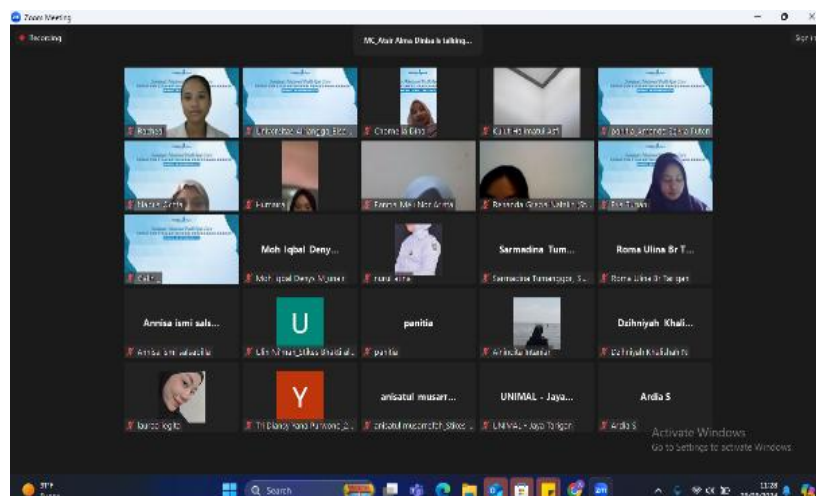


Figure 6. Activity Documentation
(Source: Personal Documents, 2024)

CONCLUSION

Based on the results of community service, it shows that generation Z is able to absorb information significantly about health issues. It appears that a digital campaign involving generation z is an effective strategy in an effort to raise awareness and change the public stigma towards cancer. Generation Z is able

to become agents of change by using their digital skills to continue to disseminate the knowledge and information they have obtained in real time by utilizing technology, such as social media.

The significant increase in participants' knowledge shows that this campaign is effective not only in providing education but also in shaping people's positive perceptions of cancer issues. Through the utilization of social media, Generation Z is able to spread health information widely and quickly, and contribute to creating a more inclusive environment for cancer patients. Challenges such as misinformation remain a major concern, so continuous digital literacy training is needed to ensure the dissemination of credible information and avoid the negative impact of fake news. Overall, the digital campaign can prove that with the support of technology and social empathy, Generation Z can be a sustainable force of change in improving public health literacy and removing social stigma against diseases.

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We recommend that community service activities like this be continued by empowering Generation Z as agents of change in other health issues. Utilization of digital skills and collaboration with health influencers is expected to expand the reach and effectiveness of the campaign. In addition, increased digital literacy training is essential to ensure that the younger generation is able to sort out accurate information and prevent the spread of misinformation. We would like to thank all participants and the organizing team for contributing to the success of this activity. Special thanks also go to Generation Z who participated enthusiastically and to PalliApis Care Indonesia for their support and resources that helped create meaningful social impact.

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