

Examining the Effectiveness of Approaches to Raise Cervical Cancer Awareness among Women of Reproductive Age in High-Density Areas. A Case Study of Chainda Compound, Munali Constituency, Lusaka, Zambia

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Abstract:

This study examines the effectiveness of approaches to raise cervical cancer awareness among women of reproductive age in Chainda compound, Lusaka, Zambia. This study aims to establish the level of awareness and knowledge about cervical cancer among women of reproductive age in high-density areas, to examine the effectiveness of existing approaches in raising cervical cancer awareness and to identify challenges to cervical cancer awareness and sensitization among women of reproductive age in Chainda Compound. Methodologically, the research adopts a mixed-methods approach, combining quantitative and qualitative data collection techniques. It integrates surveys, interviews with structured questionnaires, and field observations to gather diverse insights from residents, community leaders, and stakeholders. This comprehensive methodology ensures effective cancer awareness approaches. Majority of respondents (about 85%) reported having heard about cervical cancer, which indicates a relatively high level of initial awareness within this population. When asked about which aspects of the programs they found most effective, respondents cited “clear and understandable information,” (70.00%) “Interactive sessions,” (45.00%) and “access to screening services” (62.50%) as the top features. These responses highlight the importance of delivering information in a way that is accessible and relatable, which is critical for increasing health literacy. 50.00% indicated that a lack of information was one of the primary challenges to accessing cervical cancer awareness. Cultural beliefs and stigma (42.90%) were also frequently cited as barriers to cervical cancer awareness. Limited access to healthcare services (40.00%) was another notable challenge identified in the study. Low literacy levels (28.60%) were also noted as a barrier, suggesting that even when information is available, it may not be presented in a way that is easily understood by all members of the community. Financial constraints (25.70%) were another significant challenge, indicating that cost remains a barrier not only to cervical cancer treatment but also to

preventive measures, including screenings and education. Some respondents cited a lack of support from family and the community (21.40%) as a barrier. Based on the findings, the study recommends the following: enhanced information dissemination; promotion of culturally sensitive education; improved access to screening services; providing financial support and subsidies; increased community awareness and engagement; encouraging routine education in schools; and conducting further research.

Key Words: Awareness, Approaches, Cervical cancer, Reproductive Age.

1. Introduction:

This chapter will focus on the background of the study, problem identification, purpose, rationale, objectives identification and stating the significance of the study. In addition, the research will outline the theoretical framework.

1.1 Background:

Cervical cancer is a significant global health issue particularly prevalent in low- and middle-income countries where access to preventive healthcare services may be limited. It is the fourth most common cancer in women worldwide. Despite being largely preventable and treatable, cervical cancer continues to claim the lives of thousands of women each year, disproportionately affecting those in resource-constrained settings (Abiodun, et al., 2022).

Globally, approximately 527 000 new cases of cervical cancer and 265 000 deaths are recorded every year (Bray, et al., 2018). The burden of cervical cancer is projected to increase and is compounded by the HIV epidemic (Bray, et al., 2018; Parham, et al., 2015). Although primary and secondary screening strategies have greatly reduced cervical cancer in high-income countries, this approach has yet to reach low-income and middle-income countries (Simms, et al., 2019). Success in incidence reduction is reliant upon adequate coverage and adherence to screening services (WHO, 2014).

In Africa, 34 out of every 100,000 women are diagnosed with cervical cancer and 23 out of every 100,000 women die from cervical cancer every year (AHO, 2020). Most cancers in Africa are not detected or treated until advanced stages due to insufficient access to health care services, such as effective screening and early treatment. The African Health Organization (AHO, 2020) estimates HPV infections cause approximately 72,000 cases of cervical cancer each year in Africa. However, these figures most likely represent a conservative estimate due to the health challenges in health information systems and cancer registries in Africa

The burden of cervical cancer in Zambia is significant, with an estimated age-standardized incidence rate of 49.9 per 100,000 women and a mortality rate of 30.0 per 100,000 women. According to the World Health Organisation (WHO) report on 02 February 2024 “Lusaka Zambia has the third highest burden of cervical cancer in the world, with an incidence rate of 65.5 per 100 000 women and a mortality rate of 43.4 per 100 000 women in 2020. Despite being a preventable and treatable disease, cervical cancer accounts for about 23% of all new cancer cases in the country. The peak age at diagnosis is between 15-65 years.” Cervical cancer screening has been integrated into the HIV program, as women living with HIV are at higher risk of developing cervical cancer. High-density areas, often characterized by socio-economic challenges, present unique barriers to healthcare access and education (Maseko, et al., 2021). These include limited healthcare facilities, lower levels of health literacy, and cultural beliefs that may discourage women from seeking preventive care.

1.2 Statement of the problem:

In Zambia, cervical cancer accounts for approximately 33.5% of all cancers in women, with an estimated incidence rate of 58.0 per 100,000 women and a mortality rate of 36.2 per 100,000 women (Bruni, et al.,

2021). Chainda Compound in Lusaka under Munali Constituency, a high-density area with a population exceeding 50,000, is particularly affected due to its socio-economic challenges and limitation to some of the healthcare services. Women of reproductive age in Chainda Compound face significant barriers to accessing cervical cancer screening and preventive services. These barriers include low levels of awareness and knowledge about cervical cancer and financial constraints. Previous studies indicate that only 19% of women in Zambia have ever been screened for cervical cancer, a figure that is likely lower in high-density areas like Chainda Compound, (WHO, 2020). Ultimately, this research aims to enhance cervical cancer prevention efforts, leading to early detection, timely treatment, and a reduction in cervical cancer incidence and mortality in high-density urban areas of Zambia.

1.3 Objectives:

The general objective of this study is to examine the effectiveness of the various approaches aimed at raising cervical cancer awareness among women of reproductive age in high-density areas. A case study of women of reproductive age in Chainda Compound, Lusaka, Zambia will be used. The Specific Objectives of this study include establishing the level of awareness and knowledge about cervical cancer among women of reproductive age in high-density areas. To examine the effectiveness of existing approaches in raising cervical cancer awareness. To identify challenges to cervical cancer awareness and sensitization among women of reproductive age in Chainda Compound.

1.4 Theoretical Framework:

Health Belief Model:

This study's theoretical framework is based on the Health Belief Model. The Health Belief Model stands out for its comprehensive, flexible, and empirically supported approach to understanding health behaviours. Its ability to predict health behaviours, guide intervention design, and facilitate personalised health communication makes it a powerful tool in public health. While the model has its limitations, its strengths have made it a cornerstone of health behaviour in research and practice, contributing significantly to the design and implementation of effective health interventions.

The Health Belief Model focuses on individual beliefs and perceptions and provides a clear framework for identifying key factors influencing health behaviours and developing targeted strategies to promote health and prevent disease. The Health Belief Model (HBM) applies to the study of raising cervical cancer awareness among women of reproductive age in Chainda Compound, Lusaka, Zambia, by providing a structured framework to understand and address the factors influencing their health behaviours. By examining perceived susceptibility, severity, benefits, barriers, cues to action, and self-efficacy, the model helps identify the beliefs and perceptions that affect women's willingness to participate in cervical cancer screening and prevention programs.

2.0 Literature Review:

This chapter presents the study's literature review with sections highlighting thematic areas for specific objectives.

Awareness of cervical cancer is a critical first step in prevention and early detection. Studies reveal substantial variations in awareness levels about cervical cancer based on geography, socioeconomic status, education, and healthcare access. A study conducted in Lagos, Nigeria, by Anorlu et al. (2018) examined the awareness of cervical cancer among women and identified that only 25% of women had heard of cervical cancer. The study found a clear association between low awareness levels and limited access to healthcare and educational resources. Similarly, a study in rural India by Srivastava et al. (2021) showed that only 30% of respondents were aware of cervical cancer, with even fewer knowing about preventive measures such as

Pap smears and HPV vaccination. Knowledge of cervical cancer risk factors, symptoms, and prevention methods is often low among women in high-density areas. Kamau et al. (2019) reported that only 20% of the research study participants knew HPV as a risk factor, while even fewer could identify symptoms associated with cervical cancer. Several factors, including limited resources, cultural beliefs, and low literacy levels are often compounded by lack of knowledge. Consequently, many women remain unaware of cervical cancer and the importance of regular screenings (Bingham, et al., 2003).

Community-based health education programs have been widely implemented to raise awareness about cervical cancer. These programs often involve local health workers and volunteers distributing health informational materials. Evidence suggests that these grassroots efforts can be highly effective when tailored to the cultural and social context of the target population (Maseko, et al., 2015). Their familiarity with the community allows them to address cultural barriers and build trust with the women they serve. Mass media campaigns such as television, radio, and social media have proven effective in raising public awareness about health issues, including cervical cancer. These campaigns can reach a broad audience quickly and disseminate consistent messages about the importance of cervical cancer screening and HPV vaccination (Marlow, et al., 2015). In Zambia, radio programs have been particularly effective in reaching women in high-density areas. Radio is a widely accessible medium that can overcome literacy barriers. Social media platforms also offer a valuable tool for engaging younger women and disseminating educational content.

A fundamental challenge to cervical cancer awareness is the lack of information available to women in high-density areas. Many women are unaware of cervical cancer, its risk factors, and the importance of regular screenings. This lack of awareness is often due to inadequate health education programs and limited dissemination of information through accessible channels (Mutya, et al., 2006). Low literacy levels pose a significant challenge to cervical cancer awareness and sensitization. Women with limited education may struggle to understand written health information, making it difficult to grasp the importance of screening and preventive measures. This barrier is particularly pronounced in high-density areas where educational attainment is often low (Lunsford, et al., 2017). In high-density areas, healthcare facilities are often overcrowded, under-resourced, and difficult to reach. This lack of access can prevent women from receiving timely and accurate information about cervical cancer and the availability of screening services (Maseko, et al., 2015). Increasing awareness requires a multi-faceted approach that includes mass media campaigns, community-based education programs, and integration of cervical cancer education into existing health services. Utilizing local radio stations, community meetings, and social media can help spread information more widely and effectively.

3.0 Research Methodology:

2.1 Research Design/Methods/Approach

The study employed a mixed-methods research design, integrating qualitative and quantitative approaches to provide a comprehensive analysis of the effectiveness of approaches to raise cervical cancer awareness among women of reproductive age in Chainda Compound Munali constituency, Lusaka, Zambia. Mixed-methods research allows for data triangulation enhancing the robustness and credibility of the findings (Creswell & Plano Clark, 2017). The target population for this research will be women of reproductive age in chainda compound in Lusaka. A purposive sampling procedure was used in this study. Purposeful sampling is widely used in qualitative research to identify and select information-rich cases for the most effective use of limited resources (Patton, 2002). A 10% sample size of the population was used for this study. A closed-ended questionnaire was used for this study. Before embarking on data analysis, the questionnaires collected from the field were inspected for completeness, coded, and entered into the Statistical Package for Social Sciences (SPSS) for analysis. SPSS version 25.0-analysis program was used to analyse the data. The results will be presented in the form of tables and graphs. The analysis intends to

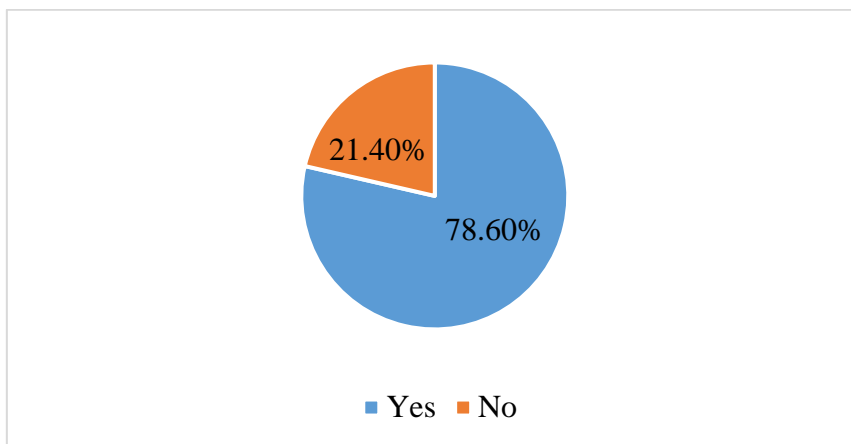
address the objectives created by the researcher in Chapter 1. The study adopted Denzin’s multiple triangulation approach, which encourages several methods to collect data and multiple investigators with varied expertise.

3.0 Results and Discussion:

This chapter presents the research findings derived from the collected data and provides a comprehensive discussion of the research objectives and literature review results.

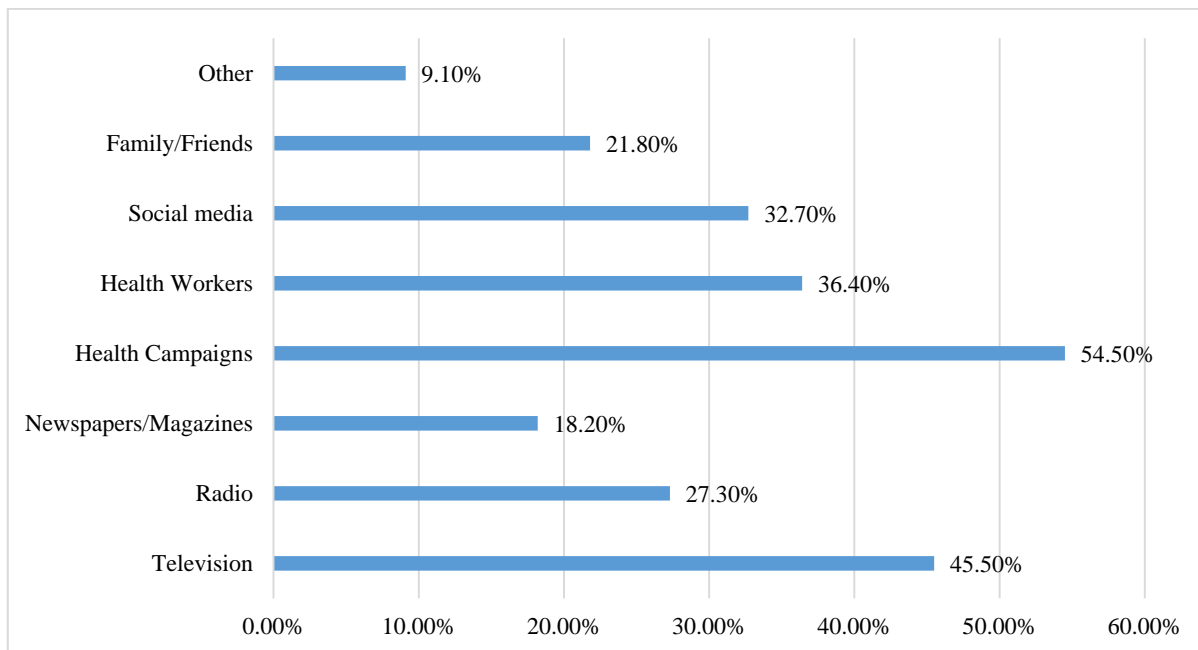
The following section outlines the results related to respondents’ awareness and knowledge of cervical cancer.

Figure 1: Have you heard about cervical cancer?



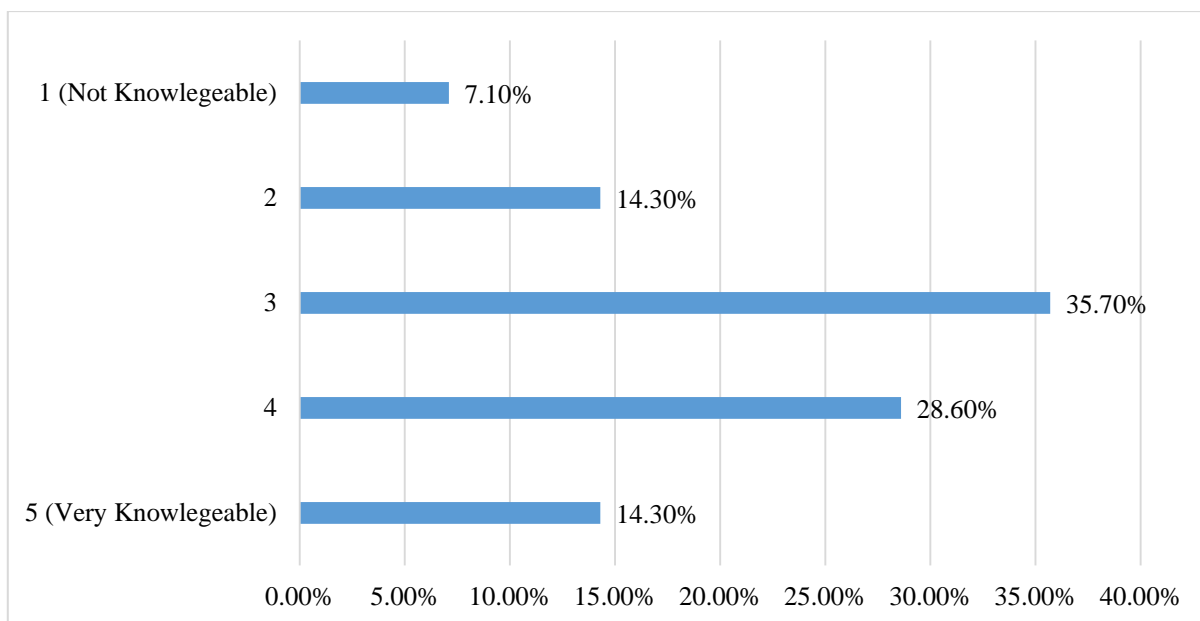
78.6% of the respondents reported that they had heard about cervical cancer, indicating a relatively high level of awareness. However, a notable minority remains unaware, underscoring the need for further awareness-raising efforts.

Figure 2: If yes, how did you first learn about cervical cancer?



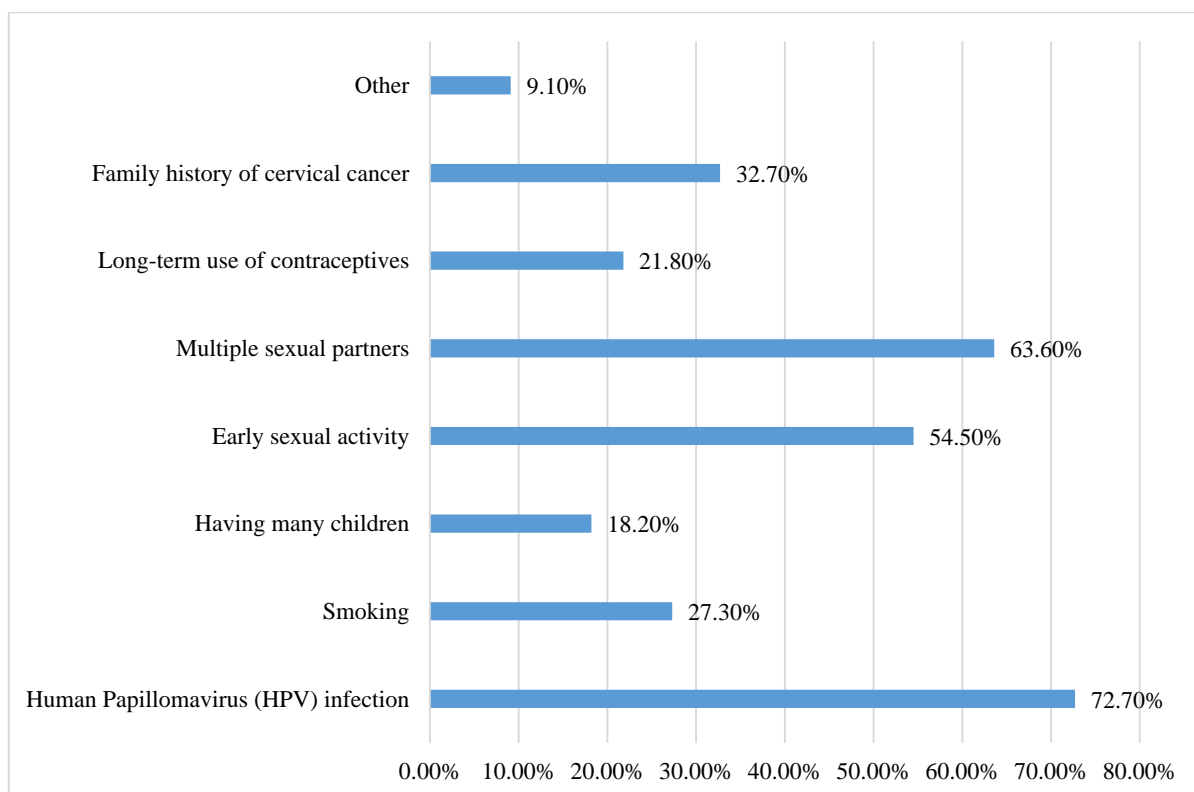
The data indicates that health campaigns (54.5%) and television (45.5%) were the most common sources of information, reflecting the effectiveness of these channels in raising awareness. Health workers and social media also played significant roles in disseminating information. This highlights the importance of utilizing a range of platforms to reach women in high-density areas.

Figure 3: On a scale of 1 to 5, how would you rate your knowledge about cervical cancer?



Most women rated their knowledge between moderate and high levels, with 35.7% at a moderate level (3) and 28.6% at a high level (4). However, 21.4% of respondents rated themselves as having low knowledge (1 or 2). More detailed information is necessary to improve overall understanding.

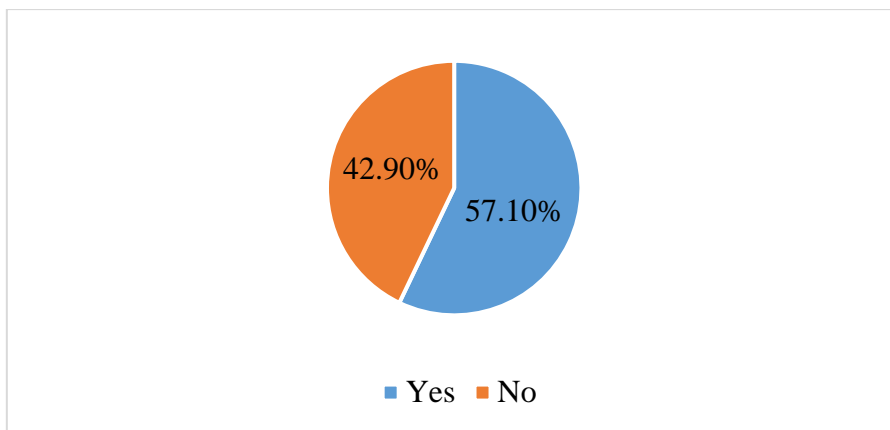
Figure 4: What are the risk factors for cervical cancer that you are aware of?



The most commonly identified risk factors were HPV infection (72.7%) and multiple sexual partners (63.6%), followed by early sexual activity (54.5%). These results suggest that while many women are aware of major risk factors, there are still gaps in knowledge concerning lesser-known risk factors, such as smoking and contraceptive use. Addressing these gaps could improve preventative behaviors.

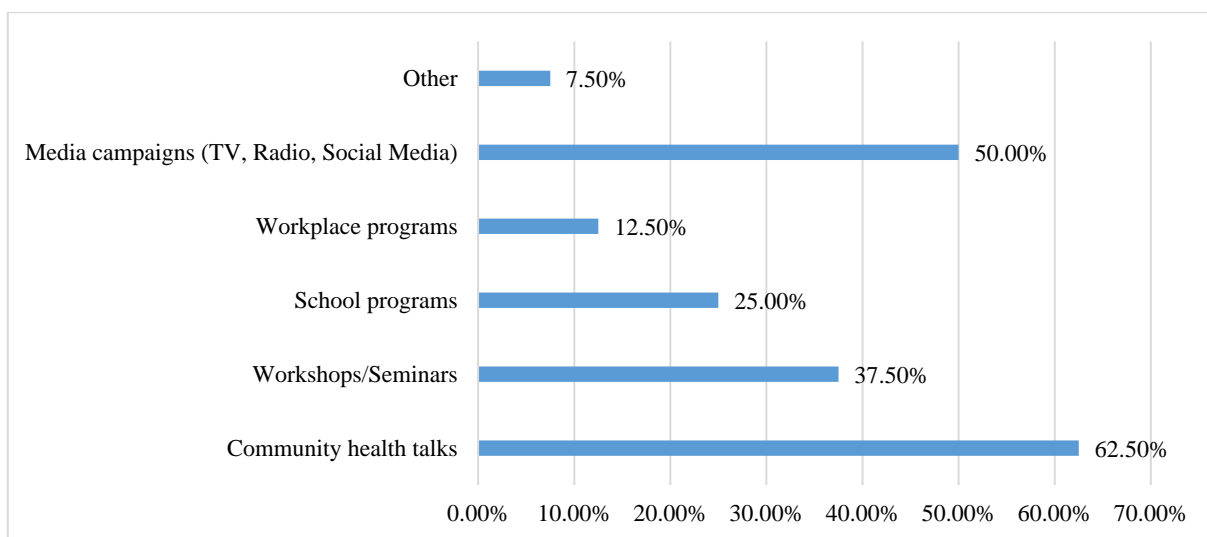
This section examines the extent to which respondents have participated in cervical cancer awareness programs, their perceptions of program effectiveness, and their cervical cancer screening practices.

Figure 5: Have you participated in any cervical cancer awareness programs or campaigns?



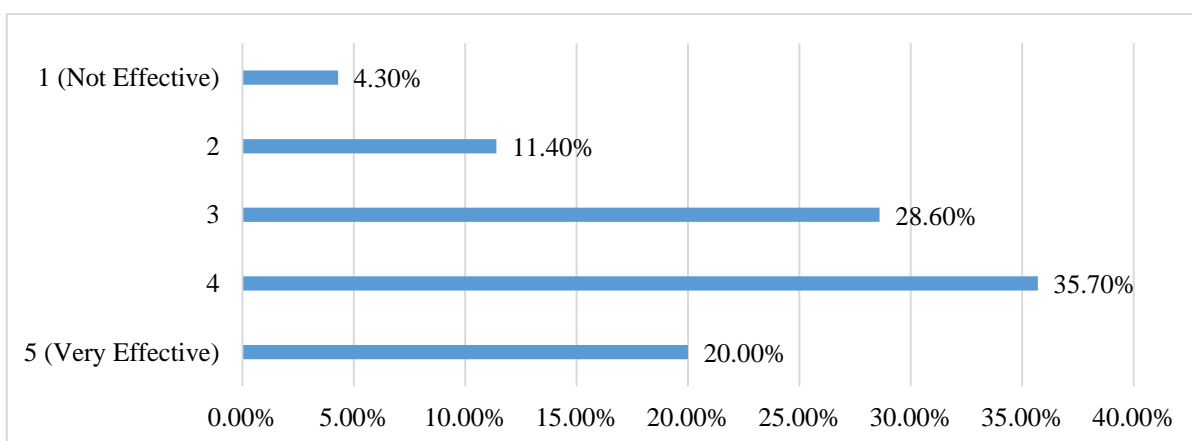
Over half of the respondents reported having participated in cervical cancer awareness programs. However, 42.9% have not participated, suggesting room for broader outreach to engage more women in these programs.

Figure 6: If yes, which type of program or campaign was it?



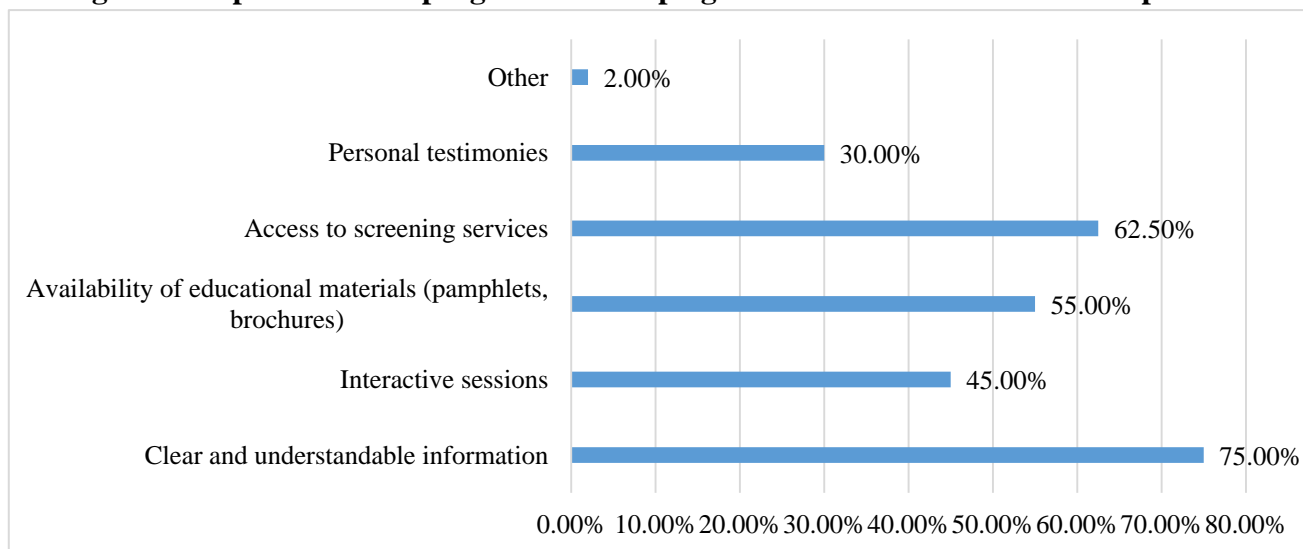
The most common forms of participation were through community health talks (62.5%) and media campaigns (50%). This indicates that community-centered and media-based initiatives are particularly effective in reaching women. Less frequent participation in workplace and school programs suggests a potential opportunity to enhance these platforms.

Figure 7: How effective do you think these programs or campaigns have been in raising awareness about cervical cancer?



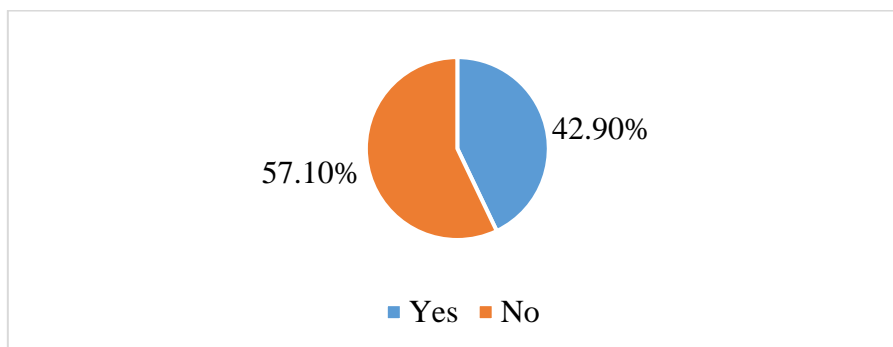
The majority rated the programs as moderately to highly effective, with 35.7% rating them a 4 and 20% rating them a 5. This suggests that these programs are generally successful, though there is room for improvement to maximize their impact.

Figure 8: Aspects of these programs or campaigns that are most effective to respondents



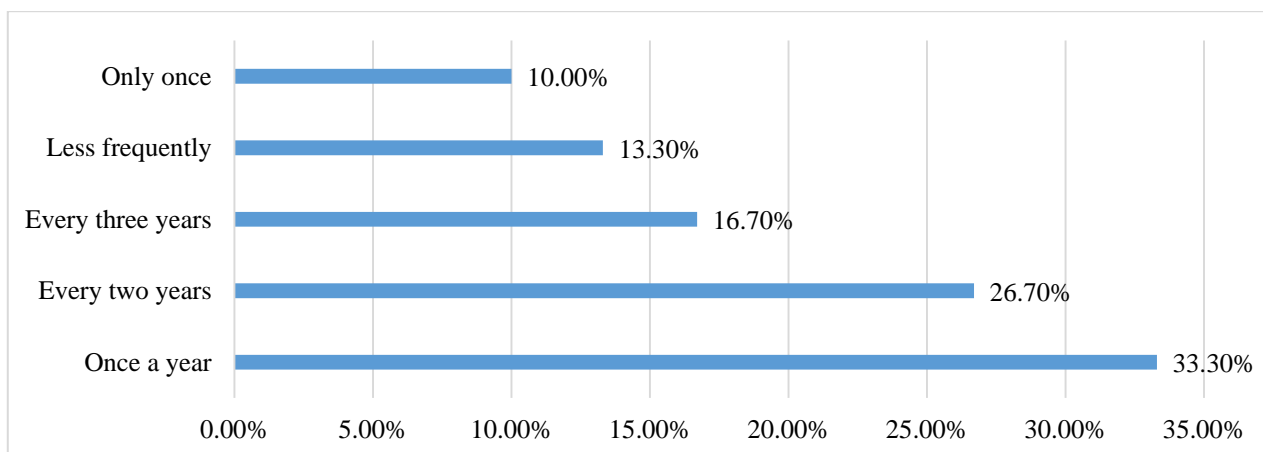
Respondents identified clear and understandable information (75%) and access to screening services (62.5%) as the most effective aspects of these programs. Educational materials and interactive sessions were also valued, which underscores the importance of well-designed and accessible resources in enhancing program effectiveness.

Figure 9: Have you ever been screened for cervical cancer?



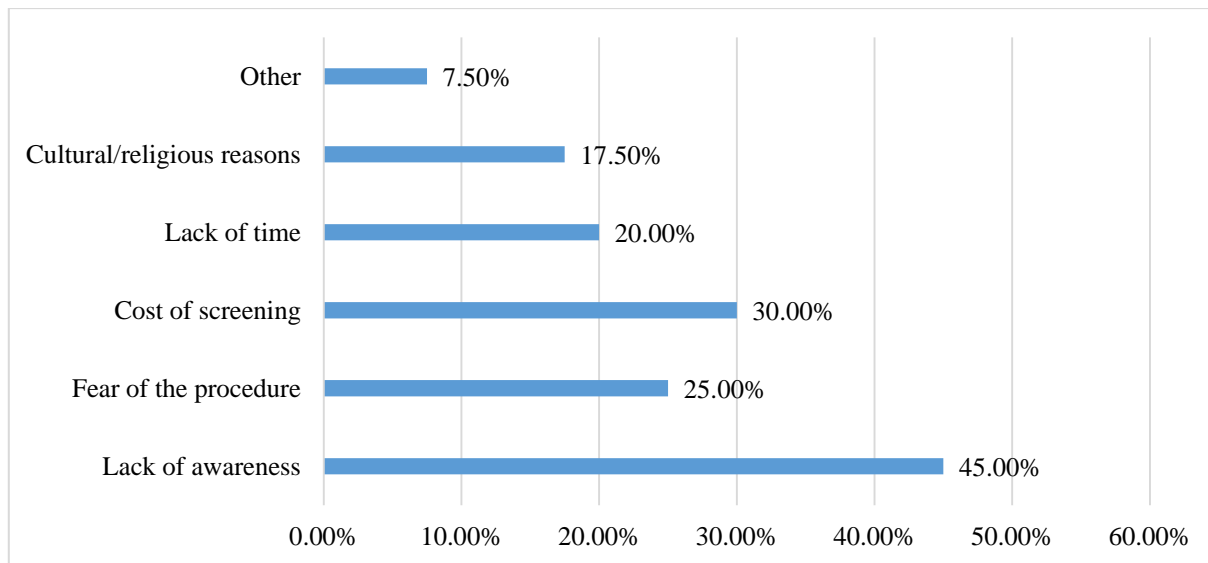
A majority of respondents (57.1%) have not undergone cervical cancer screening, highlighting a critical gap in preventative health measures among women in the study.

Figure 10: If yes, how often do you get screened?



Among those who have been screened, the most common screening frequency is once a year (33.3%), followed by every two years (26.7%). This suggests that while some women engage in regular screening, others do so less frequently or only once, indicating a need to encourage consistent screening practices.

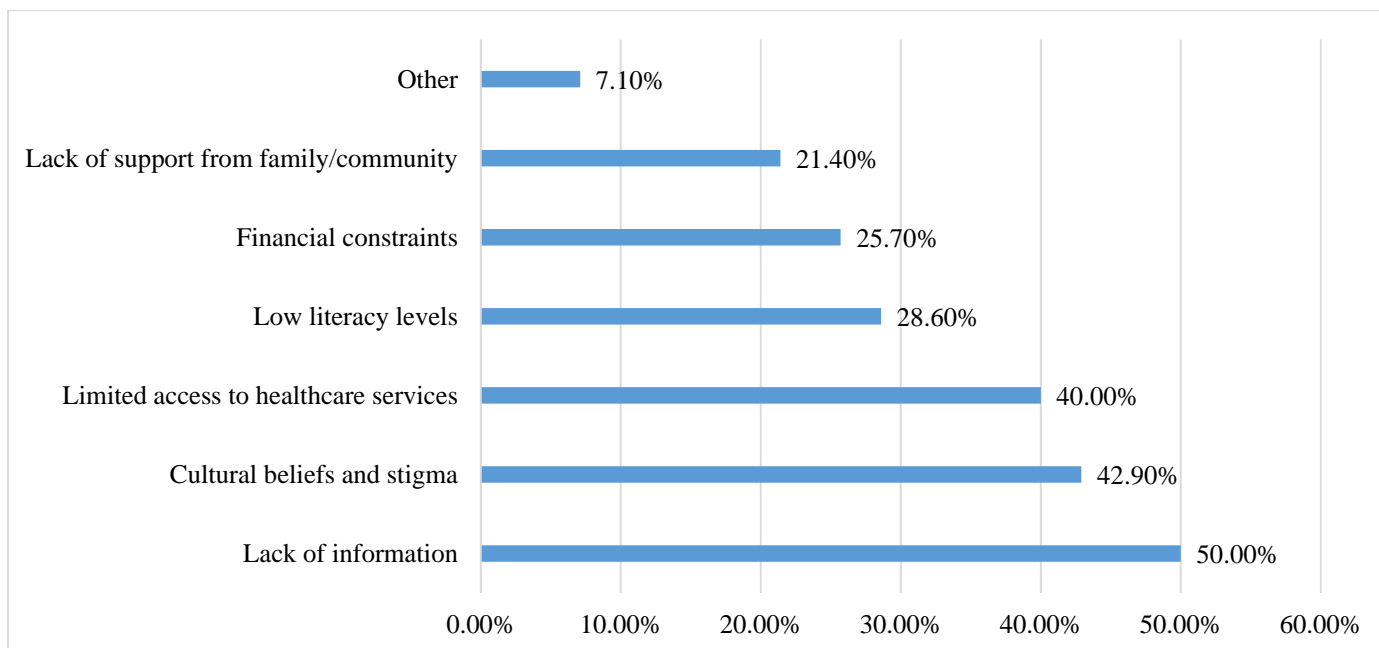
Figure 11: If no, what are the reasons for not getting screened?



The main barriers to screening included lack of awareness (45%), cost (30%), and fear of the procedure (25%). Cultural and religious reasons also played a role, along with logistical challenges such as lack of nearby facilities. These findings emphasize the need for educational interventions to dispel fears, improve affordability, and expand access to screening facilities in high-density areas.

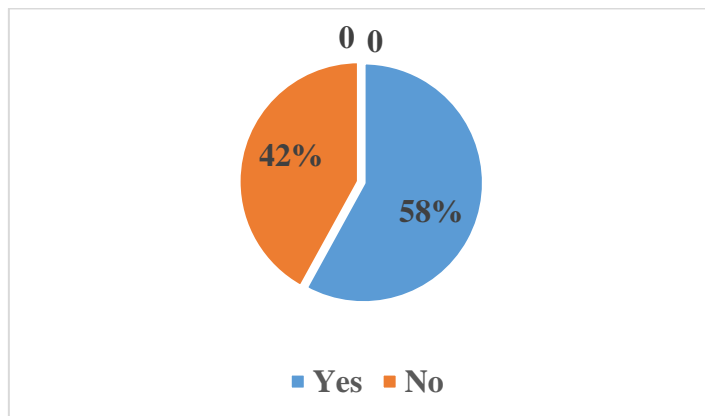
The final section explores the limitations women face in accessing cervical cancer awareness information, as identified by respondents.

Figure 12: Challenges to Cervical Cancer Awareness



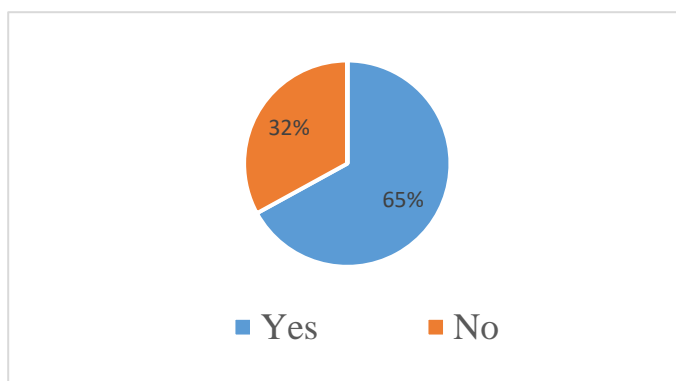
The most cited challenge was a lack of information (50%), highlighting that many women are not receiving adequate awareness messages. Cultural beliefs and stigma (42.9%) and limited access to healthcare services (40%) also significantly influence women's ability to access information. Low literacy levels, financial constraints, and lack of family or community support were other common barriers identified by respondents.

Figure 13: Are there cultural or social beliefs in your community that discourage women from seeking cervical cancer screening?



The majority of respondents (58%) reported that they had accessed cervical cancer screening, indicating a relatively high level of awareness. However, a notable minority indicated that they are discouraged due to cultural and social beliefs in the communities.

Figure 14: Have you ever felt judged or stigmatized for seeking cervical cancer services?



A significant number (32%) did not mind about societal stigma. However, over half of the respondents (65%) reported to have felt societal judgement and stigma when seeking cancer services suggesting more room for broader outreach to engage communities in these programs.

IV. Discussion of Research Findings:

The largest proportion of respondents fell within the 26-35 age range, followed closely by the 18-25 age range. This distribution is consistent with national demographic trends, as Zambia has a young population structure (Central Statistical Office of Zambia, 2020). The majority of respondents were married, with smaller proportions single, divorced, or widowed. Marital status is relevant in health behavior studies, as married women often have different healthcare needs and perceptions compared to unmarried women. Respondents had varying educational levels, with the majority having completed secondary education, followed by tertiary education and primary education. Only a few respondents reported no formal education. Employment status among respondents ranged from unemployed, self-employed, employed part-time and full-time employed. The most common status was self-employment, followed by full-time employment. Employment status is linked to both financial resources and access to healthcare services. Financial constraints are often cited as a barrier to accessing preventive health services like cancer screening, especially in low-resource settings (Sambo & Kirigia, 2014).

Most respondents (85%) reported having heard about cervical cancer, which indicates a relatively high level of initial awareness within this population. This level of awareness aligns with national efforts and global

trends that have prioritized cervical cancer as a critical health issue for women (WHO, 2021). However, the fact that 15% of respondents had not heard of cervical cancer underscores a gap that remains in reaching all women, especially in high-density areas. This indicates that while awareness campaigns may be successful to a certain extent, further efforts are needed to ensure that no demographic is left uninformed. Women who lack awareness are less likely to seek preventive care, putting them at increased risk for late-stage cervical cancer diagnosis (Ncube et al., 2015).

Awareness of cervical cancer risk factors among respondents varied, with Human Papillomavirus (HPV) infection, early sexual activity, and having multiple sexual partners being the most commonly identified. This reflects an understanding of some of the primary risk factors, which is encouraging as HPV is the leading cause of cervical cancer worldwide (WHO, 2020). The study found that approximately 60% of respondents reported participating in at least one cervical cancer awareness program, while the remaining 40% had not. This participation rate suggests that while awareness programs are reaching a majority of women in chainda, there is still a substantial portion of the population that has not engaged in these initiatives.

A significant proportion of respondents indicated that a lack of information was one of the primary challenges to accessing cervical cancer awareness. This finding aligns with previous research indicating that information dissemination about cervical cancer in many African communities is often insufficient (Ogunbode & Ayinde, 2018). Cultural beliefs and stigma were also frequently cited as barriers to cervical cancer awareness. In many communities, discussing reproductive health issues, particularly those related to sexual health, is often stigmatized (Ncube et al., 2015). This can lead to misconceptions about cervical cancer, such as the belief that it is linked to infidelity or promiscuity, which discourages women from seeking information or participating in screening programs. Limited access to healthcare services was another notable challenge identified in the study. Many women in high-density areas may face physical barriers to accessing healthcare, including long distances to clinics, poor public transport options, or overcrowded health facilities (Berner-Rodoreda et al., 2018).

5. Conclusion:

This study examined the effectiveness of approaches to raise cervical cancer awareness among women of reproductive age in chainda compound, Lusaka, Zambia, focusing on key areas such as awareness levels, participation in awareness programs, and challenges faced by women in accessing information. The findings revealed that, while many women have some awareness of cervical cancer, there remain significant gaps in their knowledge, particularly regarding the risk factors and importance of regular screening. Awareness programs, although present, have not been uniformly effective due to challenges such as cultural beliefs, limited access to healthcare, low literacy levels, financial constraints, and lack of community support.

Lack of information was a primary barrier, suggesting the need for improved information dissemination strategies tailored to the unique needs of high-density areas. Cultural beliefs and stigma further hinder women's ability to seek information and participate in preventive measures, highlighting the need for culturally sensitive education. Limited access to healthcare and financial constraints exacerbate these challenges, preventing many women from taking advantage of available screenings and awareness programs. To address these issues, efforts must be made to improve access to healthcare services and to create supportive environments that encourage women's participation in cervical cancer prevention and education.

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