



Research Article

A Theoretical and Policy Analysis of Radio Campaigns in Shaping Public Perception of HPV Vaccination in Ekiti State, Nigeria

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Abstract

Cervical cancer poses a significant public health threat in Nigeria, where low uptake of the Human Papillomavirus (HPV) vaccine impedes prevention efforts. This paper presents a theoretical and policy analysis of the role of radio campaigns in shaping public perception of the HPV vaccine in Ekiti State, Nigeria. Grounded in a synthesis of existing literature and guided by an integrated theoretical framework—combining the Health Belief Model (HBM), Social Cognitive Theory (SCT), and Diffusion of Innovations (DOI) theory—this study evaluates the potential effectiveness of radio as a health communication tool. The analysis suggests that radio campaigns are likely to enhance awareness and knowledge of the HPV vaccine, particularly in rural communities. Radio may act as a critical cue to action, influencing perceptions of disease severity and vaccine benefits. However, the impact of these campaigns is likely moderated by factors such as message framing, source credibility, and integration with other health promotion strategies. Key barriers, including misinformation and vaccine hesitancy, are also examined. This paper argues that while radio is a valuable tool, its success depends on its inclusion within a multi-channel, culturally sensitive communication strategy that fosters trust and addresses community-specific concerns. The study concludes with recommendations for designing evidence-based radio campaigns and highlights the need for empirical research to validate the theoretical insights presented.

Keywords

HPV Vaccination, Radio Campaigns, Public Perception, Health Communication, Mass Media Interventions, Immunization Uptake

1. Introduction

Cervical cancer, a preventable disease, continues to exact a heavy toll on women's health in Sub-Saharan Africa, with Nigeria bearing a significant portion of this burden. Globally, an estimated 660,000 new cases and 350,000 deaths were attributed to cervical cancer in 2022, the vast majority of which occurred in low- and middle-income countries (LMICs) [1].

In Nigeria, the disease is one of the leading causes of cancer-related morbidity and mortality among women, with annual estimates of 12,000 to 15,000 new cases and 8,000 to 10,000 deaths [2, 3]. The primary etiological agent for nearly all cervical cancer cases is the Human Papillomavirus (HPV), a common sexually transmitted infection [4]. The availability of

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safe and effective HPV vaccines presents a critical opportunity to prevent these deaths and significantly reduce the incidence of cervical cancer.

In response to this public health imperative, the Nigerian government launched a nationwide HPV vaccination campaign in October 2023, targeting approximately 7.7 million girls aged 9–14 years [5]. This ambitious initiative, the largest of its kind in the African region, marked a significant milestone in the country's commitment to public health. However, the success of such a large-scale vaccination program is not solely dependent on the availability of vaccines; it is profoundly influenced by public perception, awareness, and acceptance. In a diverse and complex country like Nigeria, where health-related information is disseminated through various channels, understanding the role of mass media in shaping these perceptions is paramount.

Ekiti State, located in the Southwest geopolitical zone of Nigeria, has a robust health communication infrastructure, including multiple radio stations that serve as primary sources of information for a large segment of the population, particularly in rural areas. Radio's accessibility, cost-effectiveness, and ability to transcend literacy barriers make it a potentially powerful tool for health promotion. Despite this, there is a notable gap in the literature regarding the specific impact of radio campaigns on HPV vaccine perception and uptake in the Ekiti State context. While studies have explored parental knowledge and vaccine hesitancy in other parts of Nigeria [7, 8], a focused analysis of radio's role in a specific regional campaign is lacking.

This study addresses this gap by presenting a conceptual analysis of the role of radio campaigns in shaping public perception of the HPV vaccine in Ekiti State. This paper does not rely on primary data collection; instead, it synthesizes existing literature and applies established theoretical frameworks to explore the potential impact of radio-based health communication. The objectives of this study are: first, to theoretically evaluate how radio campaigns might influence public awareness, knowledge, and attitudes towards the HPV vaccine; second, to identify and analyze the likely barriers and facilitators that could mediate the effectiveness of these campaigns; and third, to propose which components of radio messaging may be most effective in promoting vaccine acceptance. By examining these factors from a theoretical standpoint, this paper aims to provide evidence-based insights that can inform the design and implementation of future health communication strategies in Nigeria and other similar contexts.

The significance of this research lies in its potential to contribute to more effective public health communication, not only for HPV vaccination but for other health interventions as well. As Nigeria continues to navigate complex public health challenges, including vaccine hesitancy amplified by the recent COVID-19 pandemic, understanding how to leverage mass media to build trust and disseminate accurate information is more critical than ever. This study will provide actionable recommendations for policymakers, public health

practitioners, and media professionals on how to design and deploy radio campaigns that are culturally resonant, evidence-based, and ultimately, successful in protecting the health of the population.

2. Methods

This study employs a conceptual and theoretical analysis to assess the potential role of radio campaigns in shaping public perception of the HPV vaccine in Ekiti State, Nigeria. The research design does not involve the collection of primary empirical data. Instead, it is based on a comprehensive synthesis of existing literature, including peer-reviewed academic articles, reports from global and national public health organizations (e.g., WHO, UNICEF), and Nigerian government publications. The analysis is guided by an integrated theoretical framework that combines the Health Belief Model (HBM), Social Cognitive Theory (SCT), and the Diffusion of Innovations (DOI) theory. The analytical approach involves a thematic synthesis of the literature to identify key themes, barriers, and facilitators related to vaccine hesitancy and health communication in Nigeria. These themes are then critically analyzed through the lens of the selected theoretical models to generate insights into the potential effectiveness of radio campaigns. This approach was chosen to provide a robust theoretical foundation for understanding the complex interplay of factors influencing vaccine acceptance and to develop evidence-informed recommendations for policy and practice in the absence of direct empirical data from the specific campaign in Ekiti State.

3. HPV Vaccination and Cervical Cancer Prevention

The global health landscape is marked by a significant and persistent burden of cervical cancer, a disease that is almost entirely preventable through vaccination and screening. In 2022, the World Health Organization (WHO) reported approximately 660,000 new cases and 350,000 deaths from cervical cancer globally, with a disproportionate impact on low- and middle-income countries (LMICs) [1]. Sub-Saharan Africa, in particular, faces a severe challenge, accounting for a large fraction of both incidence and mortality due to gaps in HPV vaccination, screening, and treatment services [2]. Nigeria, as the most populous nation in Africa, reflects this trend with an estimated 12,000 to 15,000 new cervical cancer cases and 8,000 to 10,000 deaths annually, making it a leading cause of cancer-related death among women in the country [3, 4].

The development of vaccines against the Human Papillomavirus (HPV), the primary causative agent of cervical cancer, represents a monumental achievement in public health. The vaccines are highly effective in preventing infections with high-risk HPV types, particularly HPV-16 and HPV-18, which are responsible for the majority of cervical cancers [1]. The

WHO recommends the vaccination of girls aged 9–14 years as a primary preventive strategy, as the vaccine is most effective when administered before the onset of sexual activity [4]. Despite the proven efficacy and safety of the HPV vaccine, global and national coverage rates remain suboptimal, particularly in regions with the highest burden of disease.

3.1. Vaccine Hesitancy and Barriers to Uptake in Nigeria

The successful implementation of any vaccination program hinges on public trust and acceptance. In Nigeria, the rollout of the HPV vaccine has been met with a complex mix of enthusiasm and hesitancy, shaped by a variety of socioeconomic and cultural factors. A significant barrier to uptake is the pervasive lack of knowledge about HPV and its link to cervical cancer. For instance, a study in Kano State revealed that only 4.2% of parents had heard of HPV, and a mere 5.1% were aware of the vaccine [7]. In contrast, a study in Ogun State found that while 82.4% of parents and caregivers had good knowledge of the HPV vaccine, only 47.7% were well-informed about cervical cancer, highlighting a disconnect between vaccine awareness and disease understanding [7].

Misconceptions and misinformation further fuel vaccine hesitancy. A prevalent and damaging myth is that the HPV vaccine promotes promiscuity among adolescent girls, a concern rooted in cultural and religious beliefs about sexuality [7]. Additionally, the shadow of the COVID-19 pandemic has intensified vaccine skepticism, with some viewing the HPV vaccine as a "western conspiracy" [9]. Concerns about vaccine safety and potential side effects, often amplified through social media and informal networks, also contribute to parental refusal or delay in vaccination [7]. Beyond these psychosocial factors, practical barriers such as financial constraints, limited access to healthcare facilities, and logistical challenges in reaching remote populations impede vaccine uptake [7].

3.2. The Role of Health Communication in Vaccine Acceptance

Effective health communication is a critical tool for overcoming these barriers and fostering an environment of trust and acceptance. Research consistently demonstrates that recommendations from trusted healthcare providers are one of the strongest predictors of vaccine acceptance [7]. In Delta State, for example, healthcare workers were the primary source of information about the HPV vaccine for 60.7% of mothers, underscoring their pivotal role in dispelling myths and facilitating informed decision-making [7].

Beyond individual healthcare providers, the broader communication landscape plays a crucial role. School-based vaccination programs have shown significant promise, as they provide a direct and efficient channel for reaching the target demographic and disseminating accurate information to both students and parents [7]. The choice of messenger and the

framing of the message are also critical. Communication strategies that leverage trusted community leaders, use relatable language, and frame vaccination in terms of its benefits (gain-framed messaging) have been shown to be more effective than those that focus on fear or risk (loss-framed messaging) [10].

3.3. Radio as a Health Communication Medium

In the diverse media landscape of Nigeria, radio holds a unique and powerful position. Its ability to reach vast and heterogeneous audiences, including those in remote and rural areas with limited access to other forms of media, makes it an invaluable tool for public health communication. Radio transcends literacy barriers and is often a more accessible and affordable source of information than television or print media. Studies have shown that radio can be a highly effective medium for health promotion, particularly in reaching populations with lower levels of formal education [11].

A mass radio campaign in Burkina Faso, for example, was credited with saving thousands of children's lives by encouraging prompt treatment-seeking for common illnesses [12]. In the context of vaccination, radio can serve multiple functions: raising awareness about the availability and importance of vaccines, providing accurate information to counter myths and misconceptions, and serving as a "cue to action" that prompts individuals to seek vaccination services. The intimate and personal nature of radio can also foster a sense of trust and community, making it an ideal platform for sharing testimonials and endorsements from trusted community members and leaders. In Ekiti State, with its numerous radio stations and a population that relies heavily on broadcast media for information, radio presents a strategic and largely untapped opportunity to shape public perception and drive the uptake of the HPV vaccine.

4. Theoretical Framework

This study's analysis is guided by an integrated theoretical framework that combines three key models: the Health Belief Model (HBM), Social Cognitive Theory (SCT), and the Diffusion of Innovations (DOI) theory. This framework allows for a multi-layered analysis of the individual, social, and communication factors that influence vaccine acceptance.

The HBM posits that behavior is driven by an individual's assessment of a health threat and the perceived benefits versus barriers of taking action [13]. For HPV vaccination, this includes perceived susceptibility to HPV, perceived severity of cervical cancer, and the perceived benefits of the vaccine, weighed against barriers like cost or safety concerns. Radio campaigns can serve as a "cue to action," prompting this assessment by highlighting the risks of HPV and the benefits of vaccination, thereby influencing the decision-making process [14]'s analysis.

4.1. Social Cognitive Theory (SCT)

SCT highlights the interplay between individual factors, environmental influences, and behavior [15]. It emphasizes observational learning, where individuals adopt behaviors by observing others. Radio campaigns can leverage this by presenting positive role models and testimonials, which can enhance self-efficacy—the belief in one's ability to perform a behavior. By showcasing the positive outcomes of vaccination (outcome expectations), radio messages can shape social norms and encourage vaccine acceptance radio.

4.2. Diffusion of Innovations (DOI) Theory

The Diffusion of Innovations theory, developed by Everett Rogers, explains how, why, and at what rate new ideas and technologies spread through populations [16]. The theory describes a five-stage decision DOI theory explains how innovations are adopted and spread within a population [16]. It outlines a five-stage decision process (knowledge, persuasion, decision, implementation, confirmation) and categorizes adopters. Radio campaigns are instrumental in the early stages, particularly in building knowledge and persuading potential adopters. By framing the HPV vaccine as a beneficial and socially acceptable innovation, radio can accelerate its diffusion. The theory suggests that the perceived attributes of the vaccine (e.g., its relative advantage and compatibility with cultural values) are key to its adoption, and radio is an ideal channel to communicate these attributes to a wide audience.

4.3. Integrated Framework for Analysis

The integration of these frameworks will help us to develop a holistic understanding of the impact of radio campaigns. The HBM provides the lens to examine the individual-level cognitive and perceptual changes triggered by campaign messages. SCT offers insights into the social learning and reinforcement processes that occur as a result of media exposure. Finally, the DOI theory allows for an analysis of how these individual and social processes contribute to the broader community-level adoption of the HPV vaccine. This integrated framework enables a comprehensive assessment of the pathways through which radio campaigns influence public perception and behavior, from raising initial awareness to fostering sustained community-wide acceptance.

4.4. Assessing Radio Campaigns for HPV Vaccination in Ekiti State

While specific, documented evaluations of HPV vaccination radio campaigns in Ekiti State are not yet prevalent in peer-reviewed literature, it is possible to construct a robust assessment based on the known characteristics of health communication in the region, the documented strategies of Nigeria's national HPV vaccine rollout, and established best

practices in media-based health promotion. This section analyzes the likely characteristics, effectiveness, and challenges of such campaigns within the Ekiti State context.

4.5. Campaign Characteristics and Design

A typical radio campaign for HPV vaccination in Ekiti State would likely be executed through a combination of government-led initiatives and partnerships with local radio stations, such as Fresh FM in Ado-Ekiti and others with significant local listenership [6]. The design of these campaigns would be informed by the national strategy, which employed a multi-pronged approach including community fixed posts, mobile outreaches, and school-based vaccination [5]. The radio component would serve as the primary mass communication channel to support these ground-level activities.

Message Content and Framing: Based on best practices, messages would be framed to emphasize the benefits of vaccination (gain-framing), such as protecting a daughter's future health and preventing a deadly cancer, rather than focusing on the fear of the disease (loss-framing) [10]. Content would likely include short, memorable jingles, expert interviews with healthcare professionals, testimonials from vaccinated families and community leaders, and public service announcements (PSAs) detailing the "who, what, where, when, and why" of the vaccination program. To address prevalent misconceptions, messages would need to explicitly and clearly state that the vaccine is safe, effective, and does not promote promiscuity.

Broadcast Strategy: To maximize reach, broadcasts would be scheduled during peak listening times, such as early mornings and evenings, and during popular programs that attract a wide demographic, including parents and caregivers. The use of local languages, including Yoruba and its various dialects, alongside Pidgin and English, would be essential for ensuring message comprehension and resonance.

4.6. Reach and Audience Exposure

Radio's primary strength in the Ekiti State context is its extensive reach. It is a dominant medium, penetrating rural and remote areas where other media like television and internet may be less accessible or affordable. This is particularly crucial for health equity, as studies have shown that caregivers with no formal education often have higher exposure to health messaging via radio [11]. A well-executed campaign would therefore be expected to achieve high levels of audience exposure across different socioeconomic strata, contributing significantly to the knowledge stage of the Diffusion of Innovations theory.

4.7. Message Effectiveness and Perception Change

The effectiveness of a radio campaign is measured by its

ability to move the audience from awareness to action. By applying the integrated theoretical framework, we can hypothesize the pathways of influence:

1. Cue to Action (HBM): The campaign acts as a powerful cue, prompting listeners to consider the threat of HPV. By repeatedly hearing messages about cervical cancer, parents' perceived susceptibility and perceived severity are likely to increase.

2. Observational Learning (SCT): Hearing testimonials from peers and endorsements from trusted leaders (e.g., religious figures, community elders) provides social proof and models the desired behavior. This can enhance self-efficacy by demonstrating that vaccination is a socially acceptable and manageable action.

3. Persuasion (DOI): The campaign serves to persuade listeners of the vaccine's benefits, moving them through the decision-making process. The consistent, multi-faceted messaging helps to build a critical mass of positive opinion, encouraging adoption among the early and late majority.

However, message effectiveness is not guaranteed. The campaign must actively counter misinformation. The perception of the HPV vaccine as a "western conspiracy," a sentiment that gained traction following the COVID-19 pandemic, requires direct and transparent communication to build trust [9].

4.8. Barriers and Facilitators

The impact of any radio campaign is mediated by a range of local barriers and facilitators.

Barriers:

Misinformation: Competing messages from informal networks and social media can undermine the campaign's credibility.

Cultural/Religious Beliefs: Deep-seated beliefs about female sexuality and external medical interventions can create resistance that radio messages alone may not overcome.

Trust Deficit: A general lack of trust in government institutions can lead to skepticism about the campaign's motives [10].

Facilitators:

Trusted Messengers: Featuring local healthcare providers, religious leaders, and respected community elders as spokespeople can significantly enhance message credibility.

Community Engagement: Campaigns are most effective when they are part of a broader community engagement strategy that includes town hall meetings, discussions, and Q&A sessions.

School Partnerships: Leveraging the school system as a hub for both information dissemination and vaccination delivery provides a powerful reinforcing mechanism for radio messages [7].

4.9. The Need for Complementary Strategies

While radio is a powerful tool for raising awareness and shaping perceptions, it is most effective when integrated into

a comprehensive, multi-channel communication strategy. Radio messages can drive demand, but the "last mile" of converting willingness into actual vaccine uptake requires on-the-ground support. This includes ensuring that healthcare facilities are accessible, well-stocked, and staffed by knowledgeable and respectful providers who can answer questions and address concerns. The most successful model is one where radio creates the initial "pull" by generating awareness and interest, which is then met with a strong "push" from the healthcare system and community-level actors who facilitate the final step of vaccination.

5. Discussion

This analysis, while theoretical, aligns with broader findings on health communication in Africa. A systematic review of vaccination communication strategies across the continent found that mass media campaigns, particularly when complemented by community-based social mobilization, were effective in increasing vaccine uptake [4]. The review highlights that successful campaigns often use a multi-pronged approach, combining mass media with capacity building for healthcare workers and direct community engagement. This underscores the likely importance of integrating radio campaigns within a wider, multi-channel strategy in the Nigerian context.

However, it is crucial to acknowledge the limitations of a radio-only communication strategy. While radio is effective at raising awareness, it is a one-way communication channel that may not be sufficient to address complex questions or deeply rooted concerns. The systematic review noted that community-based strategies and interpersonal communication with healthcare providers are often necessary to build trust and facilitate final vaccine acceptance [4]. Therefore, a radio campaign in Ekiti State would likely be most effective when it directs listeners to trusted sources of information, such as local health clinics or community leaders, where they can engage in two-way dialogue.

The risk of misinformation also poses a significant challenge. In an era of widespread social media use, radio campaigns must compete with a flood of information, not all of which is accurate. The review of African vaccination communication strategies identified misinformation as a key barrier to uptake [4]. To be effective, radio messages must be clear, consistent, and credible. They must also be part of a broader effort to monitor and counter misinformation in real-time, which may require a multi-platform approach that includes social media engagement.

Finally, gender dynamics play a crucial role in HPV vaccine acceptance. Given that the vaccine is targeted at young girls, communication strategies must be sensitive to the cultural and social norms surrounding female health and sexuality. Messages should be framed in a way that empowers girls and their parents to make informed decisions about their health, while also engaging fathers and male community leaders who are often key decision-makers in the family. The content should

emphasize the vaccine's role in preventing cancer and protecting a girl's future, rather than focusing on sexual activity, which can be a sensitive topic.

5.1. Campaign Reach and Exposure

Based on the high penetration of radio in Nigeria, particularly in semi-urban and rural areas like those prevalent in Ekiti State, the campaign is expected to have achieved high levels of reach. Studies on media consumption habits in Nigeria consistently show that radio is a primary source of information for a majority of the population [6]. Furthermore, research on past health campaigns has indicated that individuals with no formal education report higher exposure to health messaging through radio, suggesting that the campaign would have been effective in reaching socioeconomically disadvantaged and harder-to-reach populations [11]. This broad exposure is critical for achieving the initial knowledge stage in the Diffusion of Innovations model, ensuring that a large segment of the target population is aware of the HPV vaccine's availability and purpose.

5.2. Perception Changes

The primary goal of the radio campaign is to shape public perception in favor of vaccination. The analysis, guided by the Health Belief Model, suggests the following changes:

Increased Perceived Severity and Susceptibility: Through expert interviews, dramatic narratives, and testimonials, the campaign would have worked to increase the perceived severity of cervical cancer and the perceived susceptibility of unvaccinated girls. By translating abstract statistics into relatable human stories, the campaign would make the threat more tangible and immediate for parents and caregivers.

Enhanced Perceived Benefits: Messages would have consistently highlighted the primary benefit of the vaccine: the prevention of a deadly cancer. This focus on positive, gain-framed outcomes is a powerful motivator for health behaviors [10].

Reduced Perceived Barriers: The campaign would have actively worked to reduce perceived barriers by emphasizing that the vaccine is free, safe, and accessible through local health centers and schools. By addressing common myths, such as the link to promiscuity or infertility, the campaign would aim to lower the psychosocial barriers to acceptance.

5.3. Knowledge and Misconceptions

A key finding would be a significant increase in knowledge about HPV and the HPV vaccine among the exposed population. This aligns with findings from other health campaigns where radio was a primary communication channel [12]. However, the analysis also suggests that while general awareness would increase, specific knowledge gaps and misconceptions might persist. For example, while a parent might become aware of the vaccine's existence, they may still harbor doubts about its long-term side effects or necessity. The campaign's

success in this area would depend on the clarity, consistency, and credibility of its messaging. The role of healthcare providers in reinforcing and clarifying the information provided by the radio campaign would be crucial in addressing these residual knowledge gaps [7].

5.4. Vaccine Uptake Outcomes

The ultimate measure of the campaign's success is its impact on vaccine uptake. While a direct causal link is difficult to establish without a controlled study, a strong positive correlation would be expected between exposure to the radio campaign and willingness to vaccinate. The integrated theoretical framework suggests a clear pathway: the campaign acts as a cue to action (HBM), which, through observational learning (SCT) and social reinforcement, persuades individuals to move through the decision stage (DOI) toward vaccine acceptance. The study on HPV vaccine willingness across eight Nigerian states found that while awareness alone did not directly predict willingness, it did so indirectly by increasing perceptions of disease severity and susceptibility [3]. The radio campaign, by directly targeting these perceptual factors, would therefore be a significant driver of vaccine willingness and, ultimately, uptake. The most significant impact would likely be observed when the campaign is integrated with school-based vaccination programs and strong community mobilization efforts, creating a supportive ecosystem for vaccination.

6. Findings

The findings of this analysis, synthesized from existing literature and grounded in a robust theoretical framework, provide significant insights into the role of radio campaigns in shaping public perception of HPV vaccination in Ekiti State. The discussion interprets these findings, explores the mechanisms of change, and considers the implications for public health practice and future research.

6.1. Interpretation of Findings

The expected high reach of the radio campaign, particularly among rural and less educated populations, confirms radio's enduring status as a vital tool for health equity in Nigeria. This finding aligns with previous research highlighting radio's effectiveness in disseminating health information to underserved communities [11]. The campaign's primary impact appears to be its function as a powerful cue to action within the Health Belief Model. By increasing awareness, the campaign effectively elevates the perceived severity of cervical cancer and the perceived susceptibility of unvaccinated girls, a critical pathway to vaccine acceptance identified in recent Nigerian studies [3].

The analysis suggests that the campaign's success is not

merely in information dissemination but in its ability to engage in persuasion and social modeling, as described by the Diffusion of Innovations and Social Cognitive Theories. By featuring testimonials and endorsements from trusted local figures, the campaign helps to normalize vaccination, increase self-efficacy, and create a social environment conducive to acceptance. This is particularly important in countering the pervasive misinformation and trust deficits that often hinder public health initiatives in the region [9, 10].

However, the analysis also underscores a critical nuance: radio campaigns are not a panacea. Their effectiveness is significantly mediated by the presence of complementary strategies. The finding that awareness does not directly predict willingness, but does so through the perceptual filters of severity and susceptibility [3], implies that messages must be carefully framed to resonate with the audience's existing beliefs and concerns. The persistence of knowledge gaps and misconceptions, even after exposure to a campaign, highlights the need for a multi-channel approach where radio messages are reinforced by trusted interpersonal sources, such as healthcare providers and community leaders.

6.2. Mechanisms of Change

The primary mechanism through which the radio campaign drives change is by shifting the cognitive and social calculus of the target audience. It operates on multiple levels:

Cognitive Level: The campaign provides the foundational knowledge (DOI) required for any health decision. It then targets the core constructs of the HBM, making the threat of HPV more salient and the benefits of vaccination more apparent.

Social Level: Through observational learning (SCT), the campaign provides models of positive behavior and creates a sense of social consensus. Endorsements from community leaders can shift social norms, making vaccination a more socially acceptable and even desirable action.

Emotional Level: The use of storytelling, jingles, and testimonials can evoke positive emotions and create a personal connection to the issue, which can be more persuasive than purely factual information.

6.3. Comparison with Other Communication Channels

While this paper focuses on radio, it is important to situate its role within the broader communication ecosystem. Compared to television, radio is more affordable and has a wider reach in rural areas. Compared to social media, it is often perceived as more credible and is less susceptible to the rapid spread of unverified information, although it is not immune to it. However, unlike interpersonal communication with a healthcare provider, radio is a one-way medium and cannot address individual questions or concerns in real-time. There-

fore, the optimal strategy is an integrated one, where radio creates broad awareness and demand, and other channels, such as community health workers and local clinics, provide the tailored information and services needed to convert that demand into action.

6.4. Limitations

This analysis is based on a synthesis of existing literature and theoretical application, not on direct empirical data from a specific radio campaign in Ekiti State. As such, the findings are inferential and require validation through field research. The actual impact of a campaign could be influenced by a variety of confounding factors not fully captured in this analysis, such as the specific content and quality of the broadcasts, the level of community engagement, and the prevailing political and social climate at the time of the campaign. Future research should aim to address these limitations through quasi-experimental or longitudinal studies that measure perception and behavior change over time.

7. Recommendations

Based on the comprehensive analysis of radio's role in health communication and the specific context of HPV vaccination in Ekiti State, the following recommendations are proposed to guide the design and implementation of future campaigns. These recommendations are structured to provide actionable guidance for policymakers, public health practitioners, and media professionals.

7.1. For Campaign Design and Message Strategy

Adopt an Evidence-Based, Theory-Driven Approach: Campaigns should be explicitly designed around established theoretical frameworks. Messages should be crafted to target the key constructs of the Health Belief Model (e.g., increasing perceived severity), Social Cognitive Theory (e.g., boosting self-efficacy through modeling), and Diffusion of Innovations (e.g., leveraging opinion leaders).

Prioritize Gain-Framed and Emotionally Resonant Messaging: While factual information is important, messages should prioritize the positive benefits of vaccination. Frame the HPV vaccine as a proactive step to ensure a daughter's long, healthy life. Use storytelling, testimonials, and culturally relevant narratives to create an emotional connection with the audience.

Directly Address Misinformation: Do not shy away from addressing common myths and misconceptions. Develop clear, simple, and direct messages that counter false narratives about vaccine safety, promiscuity, and intent. Use trusted expert voices, such as local doctors and nurses, to deliver these counter-messages.

Conduct Pre-Campaign Message Testing: Before launching a full-scale campaign, conduct formative research, including

focus groups and pilot tests with the target audience in Ekiti State. This will ensure that messages are not only understood but are also culturally appropriate and persuasive.

7.2. For Stakeholder Engagement and Implementation

Forge Strong Partnerships with Trusted Messengers: The credibility of the messenger is as important as the message itself. Campaigns must actively collaborate with a diverse range of trusted local figures, including healthcare providers, religious leaders (both Christian and Muslim), traditional rulers, and school principals. These figures should be featured in radio broadcasts and engaged in community-level activities.

Integrate Radio with On-the-Ground Activities: Radio should not be a standalone intervention. Its effectiveness is magnified when it is part of an integrated strategy. Radio broadcasts should consistently promote and direct listeners to tangible, accessible services, such as school vaccination days, community health dialogues, and dedicated clinics. The campaign should create a seamless link between hearing the message and acting on it.

Leverage the School System: Schools are a critical hub for both communication and service delivery. The radio campaign should be closely coordinated with the school calendar and school-based health programs. Messages can be targeted at parents during school drop-off and pick-up times, and schools can serve as a trusted venue for vaccination.

7.3. For Future Research and Evaluation

Conduct Rigorous Impact Evaluations: There is a pressing need for empirical research on the specific impact of radio campaigns on HPV vaccine uptake in Nigeria. Future studies should employ quasi-experimental designs (e.g., comparing districts with and without intensive radio campaigns) to establish a clearer causal link between media exposure and behavior change.

Perform Cost-Effectiveness Analysis: To inform policy and resource allocation, research should be conducted to assess the cost-effectiveness of radio campaigns compared to, and in combination with, other communication channels.

Explore the Digital-Radio Interface: As mobile phone penetration increases, future research should explore the potential of integrating radio campaigns with mobile health (mHealth) strategies, such as SMS reminders and interactive voice response (IVR) systems, to create a more interactive and personalized communication experience.

8. Conclusion

This paper has presented a theoretical and policy analysis of the potential role of radio campaigns in shaping public perception of HPV vaccination in Ekiti State, Nigeria. The analysis, grounded in an integrated theoretical framework and a

synthesis of existing literature, suggests that radio is a potentially vital and cost-effective tool for public health communication in this context. Its extensive reach, particularly among underserved populations, makes it a valuable component of any strategy aimed at increasing vaccine awareness. This theoretical exploration suggests that radio campaigns could function as a powerful cue to action, influencing individual beliefs about disease severity and vaccine benefits, and could also shape social norms through modeling and the engagement of trusted community voices.

However, this analysis also underscores that the effectiveness of radio is not absolute and is likely contingent upon a range of strategic factors. For radio campaigns to be successful, they must be theory-driven, culturally sensitive, and integrated into a broader, multi-channel communication ecosystem that includes robust on-the-ground support from healthcare providers and community leaders. While radio may create demand, a responsive and accessible health system is required to meet it.

As Nigeria strives to reduce the burden of cervical cancer, a sustained commitment to strategic health communication is essential. This paper's theoretical analysis suggests that investing in well-designed, evidence-based radio campaigns could be a cost-effective and impactful strategy. However, it is crucial that future empirical research builds upon this analysis to provide direct evidence to further refine and optimize the use of this powerful communication medium.

Conflicts of Interest

There is no conflict of interest.

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