



Impact of Radio Campaigns on Knowledge of Childhood Stunting among Parents of Hausa Extraction in Lagos State, Nigeria

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ABSTRACT

Background: Parental level of education and maternal eating habits of parents greatly impact toddlers' health status. According to the World Health Organisation, a total of 155 million children under the age of 5 years suffer stunting worldwide; and Africa is the only continent where the issues of stunting increased from 50.6 million to 58.7 million between 2000 and 2017. Exposure to radio health and nutrition programmes could increase knowledge of childhood stunting in peri-urban areas such as Agege, Epe, and Surulere areas of Lagos state, Nigeria.

Objectives: The study investigated the impact of radio campaigns on knowledge of childhood stunting among parents of Hausa extraction in Agege, Epe, and Surulere areas of Lagos state, Nigeria.

Methods: Paired in-depth interviews and structured questionnaire were used to investigate the effectiveness of radio childhood stung campaigns among Hausa women in Lagos State.

Results: Findings indicate that parental level of education is a major factor in the success or failure of radio childhood stunting campaigns. It was also reveals that Hausa women have a negative attitude to radio childhood stunting messages in Lagos State.

Conclusion: Policies that are aimed at bridging the wide gaps of wealth and educational inequalities between the rich and the vulnerable households must be formulated by governments at all levels, especially at the grassroots level.

Key Contributions: The study has presented another vista to medical and communication researchers with regard to effectiveness of house-to-house enlightenment campaigns and health facility-based counselling against child stunting.

Key Recommendation: It is recommended that collaborative efforts and prevention programmes should be established among various stakeholders to improve the education of vulnerable parents to decrease the incident of stunting among children in Lagos State.

Key Words: Radio, Effectiveness, Childhood, Stunting Campaigns, Hausa Women



INTRODUCTION

Radio is the medium best adopted for health communication purposes in developing nations (Rodero, 2020). This is because of its ubiquity and ability to transcend geographies and illiteracy (Nwafor, & Chidi-Irem, 2023). Listeners consume more hours of radio, consider radio medium as the closest, most credible, and radio plays a leading role in combating loneliness (Rodero, 2020). One of the major hallmarks that endears radio medium to listeners irrespective of their social and economic classes is its overwhelming pervasiveness. Radio medium retains the listening loyalty of the masses in spite of their social and educational attainments. Radio, the only most popular means of mass communication, bridges illiteracy and linguistic gaps between the educated and the illiterate. One of the main reasons development partners, policymakers and social mobilization agents adopt radio for information dissemination is its flexibility. However, people have switched loyalty from conventional media such as radio to using internet and social media for information sharing (Asy'ari and Luthfi, 2018). Many radio stations now register their presence online to retain their listeners and to emplace feedback mechanism (Asy'ari and Luthfi, 2018).

Stunting is a major health issue emanating from chronic malnutrition and sanitation (Reher et al., 2022). Stunting is one of major health issues in sub-Saharan African. As Reher et al. (2022) note, diarrheal is the one of the major causes of stunting in developing nations. In the year 2020, 149.2 million children were stunted globally, while 45.4 million children among them died due to chronic malnutrition (Ararsa et al., 2023). Childhood stunting is a serious health issue and results from chronic infection and poor nutritional practices among nursing mothers (Moxley et al., 2019). Moxley et al., (2019) conducted a study on early childhood nutrition knowledge of caregivers and found that media, socio-demographic factors and health education are crucial in the childhood nutritional knowledge among mothers. Mothers who lack access to radio, television, interpersonal counselling and television health-related programmes practice poor nutrition (Callaway et al., 2021). While stunting is higher among female children, the undernourishment among both male and female children border on the parents' level of education and health status (Rode, 2015). Most of the stunted or undernourished children experience cough, cold, diarrheal and fever (Rode, 2015).

Stunting is a health condition when a child has a small or minimal height compared to their age (Lasmiatun and Muslikhatun, 2024). Sub-Saharan Africa is the leading region in stunting globally as a result of social and economic inequalities and pervasive poverty (Ararsa et al., 2023). Children who experience stunting in their first 1000 days on earth may never grow to be physically and mentally strong for the rest of their lives (Ararsa et al., 2023). There is high rate of chronic malnutrition and stunting among Hausa children due to poor water, sanitation and hygienic practices by their mothers (Alexander et al., 2019). A variety of factors such as food insecurity, gender inequality and other cultural practices are responsible for stunting among children in Nigeria (Broadbent et al., 2022). Due to poverty, inability of mothers to maintain exclusive breastfeeding and economic limitations, most Hausa children lack access to diets that meet their required nutritional needs for their seamless growth (Moffat et al., 2022). Nutritional and stunting disorders are a continued threat to healthy living among children under the age of five years in developing nations where there are many socio-economic challenges, food insufficiency, illiteracy and a lack of focused policies on childhood health (Egbo, & Nwafor, 2024).



Rhisma et al., (2024) conducted a study on exclusive breastfeeding and prevention of stunting in lower middle-income countries and found that toddlers who were not exclusively breastfed risk the higher incident of stunted growth in their lifetime. Stunting is a public health issue among children aged between 4 and 5 years in most developing nations (Kurnia and Setianingsih 2024). Factors that have been attributed to stunting among children under the five years of age are low maternal education or uneducated mothers, low socio-economic status or too busy mothers, poor feeding patterns or failure to perform prenatal care, poor sanitation practices and sick pregnant mothers (Andriyani et al., 2024). Herdinda (2024) conducted a study on the effects of clean water on stunting among children and found that consumption of unclean water, poor sanitation and poor hygienic practices are factors that contribute to the menace of stunting among toddlers. Qudriani et al., (2024) examined stunting incidence based on maternal factors and found that maternal factors play a significant influence on stunting, including the family income, maternal parity and mothers' pregnancy history.

Stunting has been a major issue in the Sustainable Development Goals of many nations and the major concern of the nations, especially the developing nations is to end hunger and malnutrition as well as attaining food security by 2030 (Muoneke, & Nwafor, 2024; Mardhatillah et al., 2024). Lingga and Harahap (2024) conducted a study on the relationship between public knowledge and behaviour about nutritional status with the incidence of stunting and found that there is a relationship between mothers' poor knowledge of good nutritional practices and stunting. Agho et al., (2024) examined association between child nutritional anthropometric indices and iron deficiencies among children and found that stunting is greatly associated with anaemia and iron deficiency. They also found that household poverty and babies delivered through the help of untrained nurses could experience stunting in their lifetime. In a study conducted by Meshram et al., (2024), the findings revealed that undernutrition is associated with religion, the level of education of mothers, household income, age and maternal nutrition. Also, in a study conducted by Umay and Masluroh (2024), findings showed that there is an association between exclusive breastfeeding and issues of stunting in children. Harahap et al., (2024) conducted a study on stunting and family socio-cultural determinant factors and found that family social and cultural factors are important indices for measuring a child's nutritional status. Awareness campaigns against stunting has been under-researched among medical and communication scholars in Nigeria, especially in Lagos State. Studies have shown that enlightenment campaigns against child stunting are prevalently poor among the uneducated parents of Hausa extraction. As a result, this obvious gap calls for systematic and empirical investigations.

The prevalence of childhood stunting is 41% in sub-Saharan Africa and children who experience stunting is 31.1% (Harahap et al., 2024). The household income level, education, parents' exposure, social relationships, geographical locations and nutritional knowledge of parents impact the health of babies greatly in a family. Unhealthy eating habits of parents, especially mothers have a great influence on toddlers' health status (Harahap et al., 2024). 155 million children under the age of 5 years suffer stunting worldwide (Wassie et al., 2024). Africa is the only continent where the issues of stunting increase from 50.6 million to 58.7 million between 2000 and 2017. In Nigeria, Hausa women living in the state capitals are known to be unemployed, poor and destitutes. Many of Hausa women in Lagos live in the urban slums engage in street begging and avoid child-



spacing. Thus, this study is designed to investigate the effectiveness of radio on childhood stunting campaigns among Hausa women in select areas in cosmopolitan city of Lagos. Therefore, the objectives of the study are to ascertain the factors that impact the effectiveness of radio stunting campaigns in select areas of Lagos State; to understand Hausa women's attitude to radio stunting campaigns in select areas of Lagos; and to know the barriers to the effectiveness of radio stunting campaigns in select areas of Lagos State.

This study is hinged on theory of planned behaviour. The theory of planned behaviour is widely used in health studies and health education researches to explain various forms of health intention and human behaviour. The theory assumes that women have the capability to control a significant part of their behaviour when it comes to radio stunting health campaigns (Alam et al., 2020). Through the identification of intention of individuals to perform certain behaviour, actual behaviour of Hausa women can be predicted with regard to adoption of radio stunting campaigns in select areas of Lagos State (Alam et al., 2020). The probability of Hausa women's embrace of radio stunting campaigns depends on personal desirability, social norms and perceived behavioural control (Alam et al., 2020). The theory explains the factors that enable people to initiate a certain kind of behaviour (Theodorou et al., 2023).

MATERIALS AND METHODS

Paired depth interview and survey method were employed for this study. Paired depth interview and survey method were used to ascertain the factors that impact the effectiveness of radio stunting campaigns, understand the attitude of Hausa women to radio childhood stunting campaigns and to know the barriers to the effectiveness of radio stunting campaigns in select areas of Lagos State. Paired depth interview is also known as mini focus group discussion. The use of paired depth interview, as a qualitative method has been poor among researchers. Paired depth interview as Wilson et al., (2016) maintain, involves a researcher interviewing two respondents simultaneously for the purpose of collecting information relevant to the subject under investigation. Survey method enables the researchers to sample the views and opinions of respondents that other research design or methods cannot effectively examine. Lagos state has senatorial districts: Lagos West Senatorial District, Lagos Central Senatorial District and Lagos East Senatorial District. The three senatorial Districts are further divided in Local Government Areas. Furthermore, Local Government Areas that have a larger population of Hausa women and men were purposively selected for the study.

Purposive sampling was deployed when a researcher is interested in specific or certain characteristics possessed by the respondents or subjects of investigation. Purposive sampling is the selection of the subjects of the population that have characteristics or qualities that are of interest to researchers (Guarte and Barrios, 2006). Thus, Agege Local Government Area was selected for the study in the Lagos West Senatorial District; Epe Local Government Area was selected in the Lagos East Senatorial District, while Surulere Local Government was selected in the Lagos Central Senatorial District. The three local government areas were selected because they have a greater concentration of Hausa women and men. Using simple random sampling technique, markets and areas that have a high concentration of Hausa people were selected in each of the selected local government areas. Simple random sampling is applied when the population of



interest is homogenous, provides unbiased estimates and has high precision (Depersio 2015). Consequently, Agege Main Market was selected in Agege Local Government Area, Tejuosho Market was selected in Surulere Local Government Area, while Epe Fish Market was selected in Epe Local Government Area of Lagos State.

It is basically impossible to interview all the Hausa women and to give questionnaire to all Hausa men in the three selected markets in the three local government areas. Therefore, convenience sampling techniques was used to select the respondents on the basis of proximity and knowledge of the subject matter under investigation. Convenience sampling is drawn from the population that is easily and conveniently accessible to the researchers (Andrade, 2021). With the use of paired depth interview, eighteen Hausa women were interviewed about subject matter of investigation in all the three selected local government areas. Researchers made sure that women leaders of the Hausa community in the three selected markets, who are well knowledgeable about health matter were interviewed in line with the objectives of the study.

Using questionnaire, researchers obtained the views and opinions of other Hausa men about effectiveness of radio on childhood stunting campaigns in selected markets in the three local government areas of Lagos State. Gathering data from Hausa men is also important to maintain gender balancing. Thus, 400 copies of questionnaire were given to Hausa men in the selected market of the three local government Areas. We arrived at 400 sample size because Hausa market men greatly outnumber Hausa women in the three selected markets of the three local government areas. Two research assistants who are well versed in Hausa Language were recruited to help interpret the questionnaire items and the contents of the interviews for the Hausa women and men selected for the study. The interview session maintained a high ethical consideration. The names and addresses of the respondents and interviewees were never made to known to ensure research ethics and confidentiality.

RESULTS

Theme 1: Factors that Impact the Effectiveness of Radio Childhood Stunting Campaigns

The data gathered from the Paired Depth Interview (PDI) showed the factors that impact the effectiveness of radio childhood stunting campaigns in Lagos State. The discussion demonstrated that parents' level of education is one of the greatest factors that impact the effectiveness of radio childhood stunting campaigns in Lagos State. The respondents or interviewees are Hausa women who are traders in different markets spread across the three selected local government areas in Lagos State. Providing more details, a participant who is a trader of fish at Epe Market, said:

Radio remains an effective medium among all other means of communicating with a large number of people. However, the major factor that affects the acceptance or rejection of a health message on radio is the level of education of the parents. Many radio messages are aired on proper feeding and nutrition for the children, especially for those ones who are still being breastfed. Every educated nursing mother understands that a child who is properly breastfed and given proper nutrition will have no problem with proper growth. However, I, as a Hausa person in this market, understand the importance of proper nutrition and even exclusive breastfeeding but the same cannot be said of other uneducated Hausa nursing mothers in this market. Apart from radio campaigns on proper feeding and good nutrition I think those uneducated nursing mother should be talked to on the basis of interpersonal communication.



Another participant or interviewee who happens to be a trader at Tejuosho Market at Surulere said:

Many nursing mothers are happy when their children grow without any problem. However, the issue of stunting continues to rise among uneducated Hausa women and the major cause of this problem is poverty and illiteracy. When you look at the population of educated Hausa nursing mothers, you hardly find the issues of stunting among them. But the uneducated ones have issue with good food supplements and proper nutrition for their babies.

Theme 2: Understand Hausa Women's Attitude to Radio Childhood Stunting Campaigns

The data gathered from the Paired Depth Interview (PDI) showed Hausa women's attitude to radio childhood stunting campaigns in Lagos State. The discussion demonstrated that Hausa women to radio childhood stunting campaigns in Lagos State has been very negative as a result of many factors. The participants are Hausa women who are traders in the three selected markets spread across the three selected local government areas in Lagos State. Providing more details, a participant who is a trader at Agege Main Market, said:

Most of the Hausa nursing mothers among treat radio childhood stunting campaigns with scepticism because of the transient nature of radio and the language issues. Most uneducated Hausa nursing mothers hardly take actions when campaigns on childhood stunting is aired on radio as a result of illiteracy. For instances, many of Hausa nursing mothers are oblivious of the importance of exclusive breastfeeding and proper nutrition for their babies. They prefer to feed their babies with the local food stuffs and food supplements.

Another participant, who trades fish at Epe Market in Epe Local Government Area in Lagos State, said:

Most Hausa nursing mothers do not take radio childhood stung campaigns so seriously. Or else disseminated in Hausa Language and supported by a known Hausa leader in a community of Hausa people, radio childhood stunting campaigns are as good as useless. We, Hausa nursing mothers so much, believe in what our leaders or husbands command us to do. Most Hausa nursing mothers cannot embrace childhood stunting campaign unless it is sanctioned by a Hausa Opinion leader.

Theme 3: Barriers to the Effectiveness of Radio Childhood Stunting Campaigns

The data gathered from the Paired Depth Interview (PDI) revealed the barriers to the effectiveness of radio childhood stunting campaigns in Lagos State. The discussion demonstrated that socio-cultural is one of the greatest barriers to the effectiveness of radio childhood stunting campaigns in Lagos State. The participants are Hausa women who are traders in different markets spread across the three selected local government areas in Lagos State. Providing more details, a participant who trades at Tejuosho Market, said:



Socio-cultural issue has been an impediment to embracing radio childhood stunting campaigns among Hausa nursing mothers in Surulere Local Government Area here. Differences in cultural backgrounds between Hausa and Yoruba nursing mothers have rendered the radio childhood stunting campaigns to be ineffective. The form, mode and nature of radio childhood stunting campaigns do not take into consideration the cosmopolitan nature of Lagos State. So among the Yoruba nursing mothers the message of stunting has been every effective.

Another participant, who trades at Agege Main Market in Surulere, Lagos State, Said:

Illiteracy and poverty as well as socio-cultural issues have been an impediment on the march of the stunting campaigns to effectiveness. Most Hausa nursing mothers only understand Hausa Language as a medium of communication even in a city Like Lagos. Besides unless ordered by their husbands or Hausa Community leaders Hausa women are hardly independent-minded

Data Analysis and Interpretations

Table 1: Factors that Impact the Effectiveness of Radio Childhood Stunting Campaigns

| Options | Frequency | Percentage |
|-----------------------------|-----------|------------|
| Parents' Level of education | 196 | 49% |
| Severity of stunting | 93 | 23.3% |
| Cultural Issues | 65 | 16.2% |
| Referral | 46 | 11.5% |
| Total | 400 | 100 |

Source: Researcher's Fieldwork, 2024

Table 1 shows that 196 respondents representing 49% stated that effectiveness of radio childhood stunting campaign is impacted by parental level of education, 93 respondents representing 23.3% maintained that severity of the stunting impact the effectiveness of radio childhood stunting campaigns, 65 respondents representing 16.2% averred that cultural issues impact the effectiveness of radio childhood stunting campaigns, while 46 respondents representing 11.5% affirmed had referral impacts the effectiveness of radio childhood stunting campaigns.

Table 2: Hausa Women's Attitude to Radio Childhood Stunting Campaigns

| Options | Frequency | Percentage |
|---|-----------|------------|
| Preference for Radio Stunting Campaigns | 105 | 26.2% |
| Negative Attitude to Radio Childhood Stunting Campaigns | 171 | 42.2% |
| Positive Attitude to Radio Childhood Stunting Campaigns | 76 | 19% |
| A dislike for Radio Childhood Stunting Campaigns | 48 | 12% |
| Total | 400 | 100 |

Source: Researcher's Fieldwork 2024

Table 2 shows that 105 respondents representing 26.2% averred that Hausa women have a preference for radio childhood stunting campaigns, 171 respondents representing 42.2% affirmed



that Hausa women have a negative attitude to radio childhood stunting campaigns, 76 respondents representing 42.2% maintained that Hausa women have a positive attitude to radio childhood stunting campaigns while 48 respondents representing 12% averred ha Hausa women have a dislike for radio childhood stunting campaigns in Lagos State.

Table 3: Barriers to the Effectiveness of Radio Childhood Stunting Campaigns

| Options | Frequency | Percentage |
|--|-----------|------------|
| Socio-cultural issues | 148 | 37% |
| Linguistic problems | 111 | 27.8% |
| Timing of radio childhood stunting campaigns | 72 | 18% |
| Poverty | 69 | 17.2% |
| Total | 400 | 100 |

Source: Researcher's Fieldwork, 2024

Table 3 shows ha 148 respondents representing 37% averred that socio-cultural issues are the barriers to the effectiveness of radio childhood stunting campaigns, 111 respondents representing 27.8% averred that linguistic problems are he barriers o he effectiveness of radio childhood stunting campaigns 72 respondents representing 18% maintained that timing of radio childhood stunting campaigns is the barrier to the effectiveness of radio childhood stunting campaigns, while 69 respondents representing 17.2% affirmed that radio childhood stunting campaign is the barrier to the effectiveness of radio childhood stunting campaigns.

DISCUSSION

The findings showed that effectiveness of radio childhood stunting campaign is impacted by parental level of education. The findings align with the findings of Andriani e al., (2024) who found ha factors that have been attributed to stunting among children under the five years of age are low maternal education or uneducated mothers, low socio-economic status or too busy mothers, poor feeding patterns or failure to perform prenatal care, poor sanitation practices and sick pregnant mothers.

Findings showed that Hausa women have a negative attitude to radio childhood stunting campaigns in Lagos State. The findings align with intentions, behaviour, social norms personal desirability and attitude which are the major parameters of theory of planned behaviour. The findings also align with the position of Qudriani et al., (2024) who found that maternal attitude to stunting in children plays a significant influence on the acceptance or the rejection of radio campaigns on stunting, including the family income, maternal parity and mothers' pregnancy history.

Findings showed that socio-cultural issues are the barriers to the effectiveness of radio childhood stunting campaigns in Lagos State. The findings align with the position of Broadbent e al., (2022) who found that a variety of factors such as food insecurity, gender inequality and other cultural practices, poverty, inability of mothers to maintain exclusive breastfeeding and economic limitations, and Hausa children lack access to diets that meet their required nutritional needs for their seamless growth are responsible for stunting (Moffat et al., 2022). However, socio-cultural



issues have been the major factors that account for stunted growth among children of Hausa extraction in Lagos State.

CONCLUSION

Based on the findings, it is concluded that education is a determinant factor in the parental exposure to radio campaigns against stunting. Collaborative efforts and prevention programmes should be established among various stakeholders to improve the education of vulnerable parents to decrease the incident of stunting among children in Lagos State. Hausa women have a negative attitude to radio childhood stunting in Lagos State. As a result, community health worker home visits and health facility-based counselling must be engaged by the health workers to attain attitudinal change with regard to childhood stunting among Hausa Women in Lagos State. While radio childhood stunting campaigns may not effectively appeal to Hausa women in Lagos State, face-to-face counselling and interpersonal interactions must be initiated and sustained to achieve attitudinal change regarding childhood stunting campaigns in Lagos State. One of the barriers to radio childhood stunting campaigns is the socio-cultural issues. Thus, stunting awareness campaigns within Hausa communities in Lagos State must be initiated and sustained for the spread of information to help arrest the increasing cases of stunting among Hausa children in Lagos State.

Ethical Clearance

Ethical consent was sought and obtained from the participants used in this study. They were made to understand that the exercise was purely for academic purposes, and their participation was voluntary.

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Conflict of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Authors' Contributions

Adebayo John James conceived the study and wrote the introduction to the study and arranged the references. Ogundeji Benjamin Kayode wrote the methodology and theory, Bisi Olawunmi analysed the qualitative and quantitative data, while Odugbemi Lanre Sarafa did the Discussion of Findings, conclusion and recommendations.

Availability of Data and Materials

The datasets on which conclusions were made for this study are available on reasonable request.



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