Creating Awareness on Local Foods to Enhance Dietary Diversity among Poor Households in Balanga LGA, Gombe State

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Abstract

Malnutrition remains a critical public health challenge in Nigeria, particularly among poor households in rural areas such as Balanga Local Government Area in Gombe State. Despite the region's agricultural potential, many families suffer from inadequate dietary diversity, micronutrient deficiencies, and high rates of child stunting and wasting. This study examines the effectiveness of the National Social Safety Nets Project-Accelerating Nutrition Results in Nigeria initiative in improving nutritional awareness through food demonstrations using locally available foods. The research hypothesizes that leveraging indigenous food resources can enhance dietary diversity and reduce malnutrition among vulnerable households. A purposive sampling technique was employed, targeting 3,681 beneficiary households across 215 communities in Balanga LGA. Cash Transfer Facilitators and community volunteers were trained to conduct food demonstrations, emphasizing the nutritional benefits of locally accessible foods such as moringa, cowpeas, and baobab leaves. The intervention also included coaching and mentorship to reinforce dietary practices. Results indicate widespread participation, with 84 community volunteers providing follow-up mentorship to reinforce learning. The study highlights the awareness of the potential of locally sourced foods in addressing malnutrition, particularly in resource-limited settings. By promoting indigenous food utilization, households can improve dietary diversity without relying on costly external interventions. The findings underscore the need for community-centered nutrition programs that integrate education, local food systems, and sustainable agricultural practices. Recommendations include scaling up similar initiatives, strengthening policy support for local food utilization, and enhancing community engagement to ensure long-term nutritional improvements.

Keywords: Nutrition, Poverty, Awareness, Dietary diversity, Household.

Acknowledgement

Introduction

Despite various concerns by governments all over the world ensuring that every household can at least provide good nutritional food for their family, food nutrition continues to be a major developmental problem across the globe, undermining people's health, productivity, and often their very survival (Smith & Subandoro, 2007). Global hunger is severe, as 30 per cent of the world's population is currently suffering from one or other forms of malnutrition, including inadequate caloric consumption, protein deficiency, poor dietary quality, and inadequate concentrations of protein and micronutrients (Basudeb, Acharya & Davis, 2007).

Chan, Gilbert, Kim, Lowe, Shen, & Westoby (2022) globally, the consumers require food that is healthy and protects them from different diseases. A consumer is only likely to consider switching conventional food with local food if the latter is perceived as healthier in comparison to conventional. The awareness of local food is growing, and its demand is increasing even in developed countries. Several forces are propelling the demand for local food; increasing health consciousness, growing health cost and awareness about the value of local food are the primary drivers. Hence, in this paper, we analyzed the consumers' knowledge, awareness, and perception about the local foods in Pakistan Increasing awareness of these issues as well as providing concrete benefits for participating in re-localization effort.

Ali & Rahut (2019) consumers in rural areas mostly lack information and awareness about diverse dietary foods using local foods. However, the consumers living in urban areas were more aware as compared to consumers living in rural areas. The consumers' wealth status, education level, and gender play a significant role regarding acceptability of dietary foods in Pakistan. The educated respondents have more knowledge and were prepared to pay more for the dietary diverse foods. The gender is another important indicator, i.e., females were more prepared to accept the dietary diverse foods as compared to males. The propensity scores matching estimates indicated that the respondents using dietary diverse foods have less disease and have good health.

Worldwide, approximately 840 million people are undernourished or chronically food insecure, and as many as 2.8 million children and 300,000 women die needlessly every year because of malnutrition in developing countries (Basudeb et al., 2007). The situation is particularly worrying in Sub-Saharan Africa and South Asia. For instance, Nigeria faces significant nutritional challenges, particularly among vulnerable groups, Key nutritional challenges include malnutrition, Micronutrient deficiencies etc. According to 2018 Nigeria Demographic and Health Survey (NDHS) 40% of children under five are stunted, 8% are wasted, and 27% are underweight (NDHS, 2024).

UNICEF Nigeria, 2023 also states that there are deficiencies of iodine deficiencies vitamin A and iron especially among women and children (UNICEF Nigeria, 2023). Factors that contribute to poor nutrition include poverty, insecurity, low agricultural production, illiteracy, climate change among others. For instance, there is a high level of malnutrition among children in rural Nigeria and the figures differ with geopolitical zones, with about 56 percent reported in a rural area of South West and 84.3 percent in three rural communities in the northern part of Nigeria (Isaac, 2009). However, these distributions differ across States in Nigeria.

Gombe State has prevalence rate of 8.1% severely malnourished children, and the continuing degree of malnutrition with stunting affecting 50 per cent of the children under five; 14 per cent are wasted, 23 per cent are under weight, 13.7 per cent of newborn are born with birth weight below 2500 grams (UNICEF, 2023). This outcome along with the high level of poverty and falling output of agriculture suggests that hunger has a direct effect on poverty and good nutrition, which is an investment in human capital that raises output as well as the returns on investments in education and health care. While lack of sustained economic growth is an important determinant of hunger, the persistence of hunger also feeds back to limit economic growth (Saidu & Modibbo, 2020).

Basudeb, Brinda and Meenakshi (2007), provide empirical evidence which point to the negative impact of hunger and malnutrition on labour productivity, health, and education, which ultimately leads to lower levels of overall economic growth. Hunger is thus as much a cause as an effect of poverty. These studies suggest that hunger has a direct effect on poverty and good nutrition is an investment in human capital that raises output as well as returns on investments in education and health care. Previous research provided evidence that public spending on reducing hunger is an investment with high returns and should constitute a top priority for developing countries.

Gombe state located in the Northeast of Nigeria is faced with daring food insecurity, insurgencies population growth due to migration from other North-Eastern States, low food production which results to nutritional deficiencies in the northern part of the country. Nutrition challenges often disproportionately affect the poor and vulnerable. In a study conducted by Yahaya, Nabinta & Olajida (2007) in Balanga Local Government Area of Gombe State, it revealed that factors such as age, education, parity, and income significantly influenced the nutrient intake of farmers. These variables play a critical role in determining nutritional needs and must be carefully considered, particularly among peasant farmers especially high-risk female farmers when addressing issues of adequate nutrition. Malnutrition remains a critical public health challenge in Nigeria, particularly among poor households in rural and semi-urban communities.

Despite the country's vast agricultural resources, many families struggle to meet their nutritional needs due to poverty, limited access to diverse foods, and lack of awareness about balanced diets. Gombe State, located in northeastern Nigeria, has one of the highest rates of malnutrition in the country, with children under five and women of reproductive age being the most affected (National Bureau of Statistics, 2020). Balanga Local Government Area (LGA) in Gombe State is particularly vulnerable due to its agrarian economy, which is often disrupted by climate variability, economic instability, and limited infrastructure for food distribution.

The reliance on a few staple crops, such as maize and millet, has led to monotonous diets lacking essential micronutrients. However, the region is rich in diverse, locally available foods such as moringa, baobab leaves, cowpeas, groundnuts, and wild fruits that are often underutilized despite their high nutritional value. Balanga LGA produces nutrient rich food that can combat nutritional deficiencies. The study highlights strategies National Social Safety Nets Projects-Accelerating Nutrition Results in Nigeria (NASSP-ANRiN) utilized to enhance nutritional status of households in Balanga local government area by harnessing the locally available food resources to improve dietary diversity and combat malnutrition among the poor households.

Methodology

The study was conducted amongst poor households in rural communities of Balanga LGA of Gombe State, Nigeria who participated in the NASSP ANRiN programme. Balanga is in the southern part of Gombe state, sharing borders with other LGAs like Billiri, Shongom among others. The LGA has an estimated 258,154 people with a population density of about 159.1 people per square kilometer. The LGA covers an area of about 1,626 square kilometers while the tribes include Tangale and Waja amongst others. Farming is the major economic activity of the people of Balanga LGA with crops like maize, sorghum and cassava being the main staples.

A purposive sampling technique was used for the selection of the 3,681 households (Beneficiaries of the NASSP Cash Transfer Program from the National Social Register) of the 215 communities and 9 wards trained on food demonstrations from the LGA. The training was broken down into stages, at first stage, nineteen (19) Cash transfer facilitators (CTFs) from the LGA were purposively selected and trained, thereafter the nineteen were mobilized and empowered to go round the communities to train and provide coaching and mentorship. The report of the ANRiNs activities showed that the food demonstration exercise conducted across the LGA was representative and well attended.

Result

NASSP ANRiN strategy of food demonstration improves the awareness of dietary diversity of the Poor Households in Balanga LGA

Table1: Breakdown of participants for the food demonstration carried out in Balanga LGA

SN	Description	Number
1	Number of Wards	9
2	Number of Communities	215
3	Number of Households trained in Food demonstration	3,681
4	Number of community Volunteers trained	84
5	Number of CTFs Trained in Food demonstration	33
6	Number of Households Couched and Mentored	3,681

Source: ANRiN report (2023).

The study evaluated the awareness of food demonstrations conducted under the NASSP-ANRiN program in Balanga LGA, Gombe State. The intervention was implemented across 215 communities spanning nine wards (Kulani-Degri-Sikkam, Bambam, Talasee-Dong-Reme, Gelengu-Balanga, Mwona, Dadiya, Lunguda, Nyuwar-Jessu, and Kindiyo), reaching a total of 3,681 beneficiary households.

The implementation process began with the training of 33 Cash Transfer Facilitators (CTFs), who subsequently conducted community-level training sessions for selected households. These

sessions focused on preparing nutritious meals using locally available foods. To reinforce the training, 84 community champions were identified from among the beneficiaries to provide peer mentorship. These champions conducted house-to-house visits, offering personalized coaching to 3681 households during the study period.

Discussion

Dietary Diversity

Dietary diversity refers to the number of different food groups consumed over a given reference period, typically within 24 hours. It is a key indicator of diet quality and nutritional adequacy, especially in assessing micronutrient intake in populations. According to the Food and Agriculture Organization (2013) UNICEF on the other hand defines dietary diversity as a key indicator of nutritional quality for children aged 6–23 months, measured by the consumption of foods from at least five out of eight defined food groups within a 24-hour period. This metric, known as Minimum Dietary Diversity (MDD), assesses whether children receive a varied diet essential for growth and development. Here are the specifics. Children need the right foods at the right time to grow and develop to their full potential. The most critical time for good nutrition is during the 1000-day period from pregnancy until a child's second birthday.

Previous studies have shown that a dichotomy exists between quantitative methods and qualitative techniques for the measurement of poverty and food nutrition. However, recently, focus has been on the quantitative approach of measuring food nutrition using household expenditures. To that effect, an increasing number of quantitative surveys now collect data on household expenditures to analyses the extent of food nutrition. Even though much research works has been done on this alternative indicator in underdeveloped countries and Nigeria in particular, relatively less progress has been made in terms of quantitative measures of food nutrition that use representative household surveys.

In enhancing nutritional awareness among beneficiaries in Balanga, one of the strategies adopted by NASSP ANRIN was food demonstration. Food demonstration provides a window of opportunity in acquiring information on food production, cooking skills, and good hygiene practices. This utilizes local foods by promoting consumption, highlighting the nutritional value, and educating the poor households about traditional food preparation methods. Inadequate dietary intake (poor breastfeeding, low meal frequency, inadequate preparation of complementary foods and unhygienic foods) are the most significant cause of malnutrition among young children, and women of reproductive age (NASSP-ANRiN Report, 2023).

This paper aims to utilize local foods to enhance nutritional awareness for vulnerable families in Balanga by enhancing local food availability, promoting dietary diversity and empowering beneficiaries with nutritional education. The food demonstration with the Community Facilitators equipped families with knowledge to improve access to balanced diets. Food-insecure households often sacrifice food quality and variety in favor of quantity, for example, consuming low-cost, energy-dense, and nutrient-poor foods), Local food system approaches to address food and nutrition security among low-income populations (Garrity, Guerra, Hart, Al-Muhanna, Kunkler, Braun & Garner, 2024).

Figure 1: Chart showing food demonstration carried out in Balanga LGA**.**
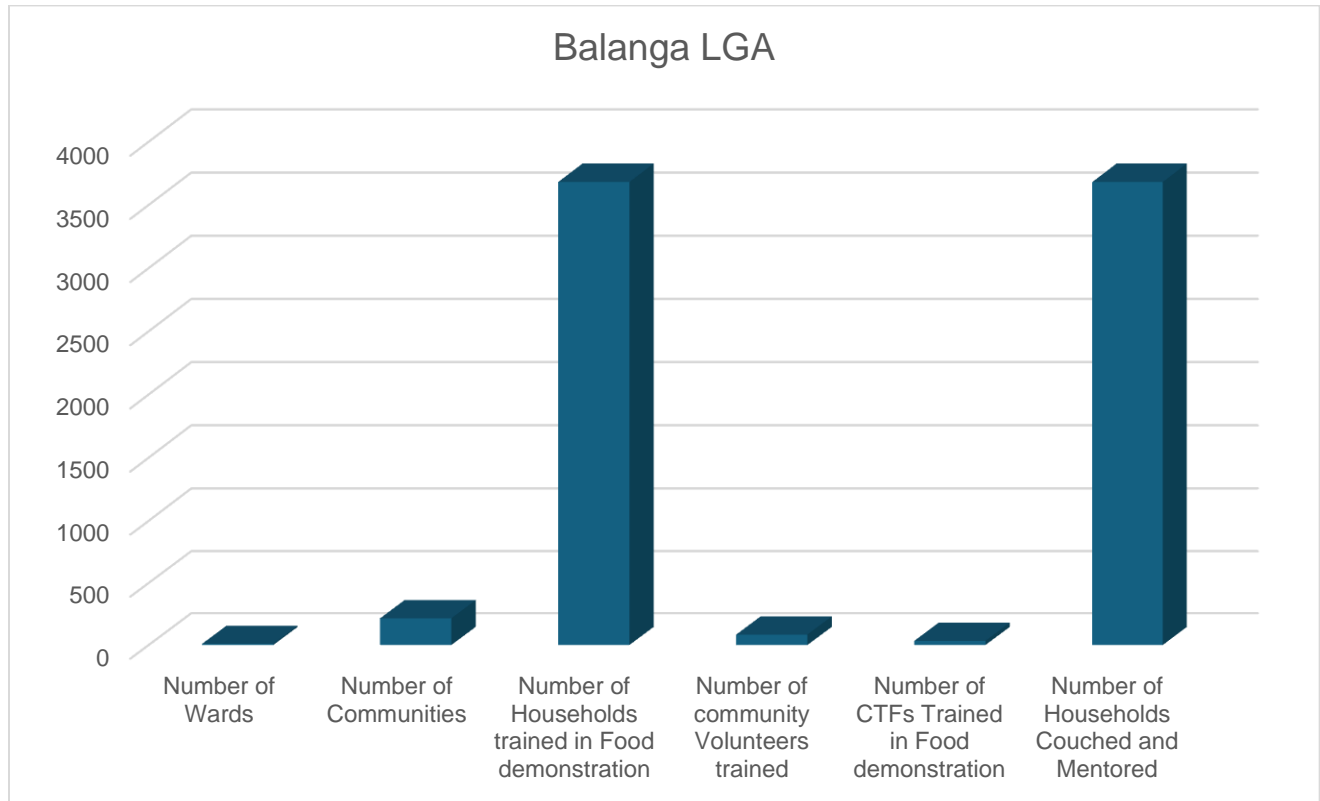
Source: ANRiN Report (2023).

Key findings from the intervention include:

1. High Participation Rate: The large number of households reached (3,681) indicates strong community engagement with the program.

2. Effective Knowledge Transfer: The cascaded training model (CTFs → households' → peer mentors) proved effective in disseminating nutrition education.

3. Behavioral Reinforcement: The mentorship component helped sustain dietary changes, though the limited number of coached households (3,451) suggests room for expanded coverage.

The results demonstrate that community-based nutrition interventions utilizing local food resources can effectively improve dietary awareness among vulnerable populations. However, scaling up mentorship and incorporating long-term monitoring could further enhance program impact.

Conclusion

Malnutrition in Balanga, Gombe State, is a multifaceted issue requiring sustainable, community-driven solutions. By leveraging locally available foods, households can improve their nutritional status without relying on expensive or externally sourced interventions. This study seeks to provide actionable insights into how indigenous food resources can be optimized to enhance dietary diversity and combat malnutrition among vulnerable populations. The findings will contribute to broader efforts aimed at achieving food security and better health outcomes in rural Nigeria. Future research on the impact of food demonstrations in Balanga could be carried out.

Recommendation

It is recommended that

i. Scaling up similar initiatives,

ii. Strengthening policy support for local food utilization.

iii. Enhancing community engagement to ensure long-term nutritional improvements in poor rural communities will enhance the nutritional awareness and outcome of the poor.

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