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Improving the awareness of healthy dietary practices and non-communicable diseases among adults in Mbingo community.

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Abstract

Background

Non-communicable diseases have posed a serious health problem both in developed and LMICs. The main NCDs that are diet-related include DM, HTN, CA, CVDs hence NR-NCDs. The dietary factor has been noted with evidence to be the highest contribution to these diseases as a lot of people are relegated to consuming unhealthy diets with many dietary practices that pose health risks. This project aimed at improving the awareness of healthy nutritional practices and non-communicable diseases among adults in Mbingo Community.

Results

Conducted massive sensitization and education to all adults 18 to 65 years in the MBH community. Provided monthly education in churches, schools, social gatherings, and clinics by trained health and community workers. Training of health professionals and CHWs in behavior and attitude change towards unhealthy dietary practices among adults, Community utilization of NCD services, and Resource mobilization with leadership was done. Conducted massive screening among adults 18 to 65 years in the MBH community and referred diagnosed cases with complications to health facilities for better management and NCD clinics for better networking.

Conclusion

The NCD problem globally, in Cameroon and MBH community is a crucial issue due to increased morbidity and mortality. Several risk factors have been known to contribute to the incidence and prevalence, with unhealthy dietary risk factors being the most prominent among others.

Recommendation

The Ministry of Health should set out funds right down to regional levels for Nutrition awareness and campaign programs, and monitor its implementation to ensure that the budgeted funds are used as planned.

Keywords. *Healthy dietary practices, Nutrition awareness, Non-communicable diseases (NCDs), Adult health education, Community health promotion, Mbingo Community.*
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Background.

In 2016, among the 59.9 million deaths worldwide, NCDs accounted for 40.5 million of the deaths of which 15.2 million deaths occurred among people between 30 and 70 years (Nyaaba et al, 2017; Bennette et al, 2018). Similarly, the World Global Status Report envisages that by 2025, the death rate from NCDs will increase to 41 percent among 70 percent of all deaths (Kassa & Grace, 2019; Emadi et al, 2021). Furthermore, WHO (2018) continues to support that 85% of premature deaths among adults result from NCDs with prospects that 23% of adults in LMICs still stand the risk of dying from these four NCDs, that is CA, CVDs, CRDs, DM. Because of the high number of deaths resulting from NCDs, this has become a major health challenge in the 21st century and needs urgent action plans and interventions for its prevention and control (Nyaaba et al, 2017). Qiao et al (2022), says in 2019 7.9 million deaths and 187.7 million DALYs were attributed to Dietary risk factors worldwide.

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High salt, fat, trans fats, and sugars with low fruit whole grain consumption has greatly increased across the globe.

In low- and middle-income countries (LMICs), mortality from NCDs is on the rise which is related to increased urbanization and changing lifestyle factors to meet up with urbanization (Goshall & Taylor-Robinson, 2018; Jailobaeva & Falconer, 2021). Despite the evidence of many policies put in place, and sustainable development goals on the prevention and control of NCDs, these diseases keep increasing from decade to decade as many countries keep experiencing a rise in these NCDs (Girum et al,2020; Jailobaeva & Falconer, 2021).

Cameroon being one of the LMICs, is experiencing a rise in NCDs, especially CVDs, CA, DM, and CRDs. NCDs contribute to 43 percent of all deaths and 21 percent of DALYs. This increase is related to increased urbanization exposing many people to unhealthy lifestyles including unhealthy diets, physical inactivity, lack of knowledge, and a host of others (Echouffo-Tcheugui & Kengne, 2011). NCDs accounted for 31% of all deaths in 2014, with the probability of dying from this disease between 30 and 70 years old (Echoffo-Tcheugui & Kengne, 2011; WHO, 2014).

In Africa, and the world at large, despite the measures put in place through policy interventions, Cameroon and eventually the North West Region right down to Mbingo, they are little or no policy implementation on healthy diets and that is why the markets are flooded with inexpensive unhealthy foods (Echoffo-Tcheugui & Kengne, 2011). Reports show that in other countries, the policies on the restriction of the marketing of unhealthy foods have yielded better results in NCD prevention and management (Hawkes et al, 2013; Gorski & Roberto, 2015).

Mbingo community which is the study population is also experiencing a rise in NCDs especially Cancer, DM, and CDVs as recorded in the NIP, and KYN statistics from 2019 to July 2022. Also, the Diabetic clinic reports of MBH registered high statistics for NCDs (MBH medical records). Highlights show a 60% increase in the rates of adult CA, DM, HTN, and CVDs in CBCHs NIP statistics. New cases of these diseases are being diagnosed with up to 70% already with severe complications of the disease which most at times end up in deaths. These NCDs are driven by the rise in lifestyle risk factors that are modifiable especially Unhealthy diets and Physical inactivity as observed by the writer.

In Health and Social System Issues in Practice (2023), the writer noted that the risk factor of unhealthy diets for NCD management and prevention has not been adequately talked about. This is especially true in countries like Cameroon where policies on the sales of healthy diets are not given adequate attention (Echouffo-Tchengui & Kengne, 2011). Currently, methods to improve these health conditions are focused on nutrition counseling and education in the health facility to patients and sometimes caregivers, Providing appropriate information tailored towards adults' unique needs remains the vital component to improving NCD health (Suryani et al, 2019). The EBNA (2023), highlighted that a larger number of adults lack adequate and appropriate information to healthy dietary choices and thus need to be improved on. More so, the information given is mostly in clinical settings to people who come with other illnesses which could be extended to a larger population in the community as this will support and enforce positive decision-making and health service uptake. The integration across community and clinical settings will improve uptake and health outcomes (Ogden et al, 2012; Lee et al, 2018). However, this took a different turn as there has been a little drop in mortality rates of about 15% in the cases of NCDs from March 2023 which could be a result of the ongoing project on improving Awareness of healthy dietary practices through NC and education on NCDs at various out-Patient Department (OPDs) and clinics. Modifying environments that encourage and enable individuals to make healthy choices by improving the availability and affordability of healthy foods while reducing the availability of unhealthy foods are other measures to improve NCD health (Liyanage et al, 2019). Therefore, greater efforts are needed to raise public awareness of interventions and improve dietary practices that aim to enable the population to have access to nutrition information through education to empower them to make informed choices about what to eat. This will reduce the NCD burden and thus a better health promotion. If not, the high rates of NCD deaths will keep compounding if, in addition to other factors, the lack of appropriate information required to decide on a diet is not looked into. This project aimed at improving the awareness of healthy dietary practices and Non-communicable diseases among adults in Mbingo Community.

Problem Identification

The next part of this paper describes in detail the decision-making process of identifying the problem to be addressed. It further provides insight for improving the dietary risk factor as a solution in achieving the required behavior

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change among adults of the MBH community toward NCD prevention and control.

Scope of the problem

Mbingo Baptist Hospital (MBH) is a faith-based institution under the Cameroon Baptist Convention Health Services (CBCHS) that serves as one of the main referral hospitals in Cameroon. It is located in the Belo Sub-Division, Boyo Division of the North West Region (NWR) of Cameroon. The hospital is situated 23 miles from Bamenda Capital city of the NWR. It trains specialists in surgery and internal medicine. Specialized services such as ENT, Orthopedic, Eye, and NIP services are provided. It is linked to other regions and receives clients from in and out of Cameroon. The NIP department is a unit that provides services to patients and clients at all levels with nutritional conditions. This unit has three nutrition counselors who attend to both in and outpatient clients. These counselors are there to provide counseling to people with malnutritional Diseases such as CA, DM, HTN, and CVDs, with the use of healthy diets and lifestyle modification. One of the most outstanding tasks in this unit is compounding malnutrition prevention and treatment using local food products.

In the local community, it is important to note that most community workers are farmers and hospital workers. Health education campaigns are not often done. A lot of people eat out of home due to work and most of the time spend time eating ready-prepared food high in unhealthy ingredients. In this line, many develop illnesses without knowing.

Project Design

Project Title

Improving the Awareness of Healthy Dietary Practices and Non-Communicable Diseases among Adults in MBH community.

Aim of the project

The principal aim of this project was to use Nutrition education and counseling as a knowledge-based strategy, to improve awareness of healthy diets/dietary practices and NCDs from 40% to 80% to reduce mortality and morbidity rates among adults due to NCDs by 60% by January 2024.

Project Objectives

1. To reduce the rate of NCD deaths and illnesses among adults in Mbingo community from 75% to 35% by the end of 2024.
2. To provide appropriate knowledge on dietary risk to NCDs, and guide behavioral interventions for change by June 2024.
3. To ensure that all clients with any of the aforementioned NCDs are counseled and educated by March 2024.
4. To promote massive community education and screening to detect people in the early stages of NCDs for better management by June 2024.

Project outcome

The project outcomes include;

1. Within 1 year, adults in Mbingo community will adopt a positive behavior change toward improving their dietary patterns and behaviors.
2. Within one year, NCD deaths and illnesses will decrease by 35% in the MBH community.

Among the adults attending each program intervention, 80% of them will increase healthy diets eating through the knowledge received.

Project Implementation Design

In this project, NIP counselors and devoted KYN workers were identified and trained as nutrition educators and counselors on the principles of adult learning. This training was aimed at increasing knowledge and improving teaching skills and attitudes towards counseling and education. The trainees were trained to carry out the following tasks; provide nutrition education on dietary risk factors and NCDs, diet counseling on various NCDs at health facilities, assessment and screening to detect for early NCDs diagnosis, and referral of patients for specialized services if need be. They will also link NCD clients to treatment clinics for better management and peer interaction.

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Project Overview

The project design is adapted from the early operational structure that has been in practice in the CBCHS NCD Prevention and Control Program (NCDPCP) located in the Bamenda director's Offices. It is coordinated and facilitated by the Director of CBCHS through the coordinator of the KYN program. The vision of this project was to eliminate Trans fats in the diets in many regions of Cameroon. However, it did not cover other dietary components like salt, Maggi, sugars, and saturated fats awareness. Hence this ongoing project has to cover dietary risk factors and not only be limited to CBCHS health facilities but extend right to Mbingo community at large. The project will report through the administration of MBH to the Coordinator of KYN of the CBCHS.

Project description

The project team will be made up of a team of committed workers such as NIP, KYN, diabetic counselors, the change agent, MBH Nursing Supervisors, and the supervisor of CBCHS NCD-PCP. These are experts to address the dietary risk factor in the NCDs Awareness project. The focus shall be on Nutrition Education and Counselling about NCDs. The community leaders will be contacted to mobilize the adult population on the outreach activities to be carried out. The various roles played by team members will be discussed below.

The change agent: supervisor of CBCHS NCD-PCP.

This is the overall coordinator of the project both the activities and the services aimed at enabling the adult population to have access to Nutrition knowledge and NCD services to improve overall health. At this level, the change Agent shall act as the project manager to oversee the activities of other team members. He shall also mobilize resources for the project.

MBH Community

The NIP/KYN, Diabetic counselors, and educators shall act as change agents in their various corners to foster change among adults toward prevention and control of NCDs using dietary factors. They shall also ensure that services rendered are of standards and evidence-based. Expert literate adult clients living with NCDs shall be identified and trained as peer educators to continuously motivate other clients on healthy eating. Through peer educators, testimonies on the successful management of health conditions can also be shared for further motivation. Community Health Workers (CHWs) shall be trained and equipped with knowledge and skills to carry out community screening, and assessment for early detection of NCD cases and to do referrals to the health facility for better management.

The focal change agent who is the writer has a role to work closely with the hospital administration and all health workers involved and team members to ensure that the activities are done effectively. She shall also be responsible for the project implementation and reporting back to the relevant authorities.

Community Health Workers (Post Test Networks)

They shall continue the role of information awareness within the community and will be responsible for coordinating clients with various NCDs and network them to HTN, DM, and clinics in the health facility. They will work in partnership with the change agent in planning and implementing their community activities in Mbingo community. It is assumed and believed that social cohesion plays an important role in enabling the acceptability of programs and services introduced in the community. The adult community will work as a team to change unhealthy behavioral risks that can lead to diseases.

The community will therefore involve key resource persons and community leaders that can interact with each other in reducing unhealthy dietary risk behaviors towards food consumption. Targeting and reducing cultural beliefs and food practices that can influence NCDs as well as those that can influence behavior change about healthy eating. Therefore, with participation and interaction, with each team member executing his/her roles, the project will move smoothly and change will be evitable.

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Project Implementation

Needs Assessment

The EBNA conducted in 2023, was carried out to determine how dietary risk factors can influence NCDs among adults in the MBH community. This initial assessment enables prioritization of key strategies to improve the consumption of healthy diets and practices through an open discussion with key players/stakeholders as well as the beneficiaries (WHO, 2012; Arena, 2015). This will also help to bridge the gap of inadequate knowledge about healthy diets identified. The reasons for people not eating healthily were a lack of clear information on what constitutes a healthy diet about the prevention and management of NCDs, culture, beliefs about NCDs, poor food choices due to unaffordability and unavailability (Story et al, 2008; Rao et al, 2013). The project is based on evidence-informed and well-supported by key players such as MBH leadership, community leaders, health workers, and clients/adult population in the MBH community. Given that the project is evident evident-informed approach, there is little resistance that could affect the change. The health workers accepted the change strategy and the additional responsibility to carry out the change. For objectives to be met, the availability of resources and expertise is of great importance.

Achievements

Approval: The administration of the CBCHS NCD-PCP and MBH, in particular, approved the four days of training of behavior change health workers to carry out Nutrition Counselling and education for change in the health facility and community at large. This was seen that education for change is a motivating strategy to bring about behavior change in dietary factors to NCDs as seen in Course Unit Three.

Staffing roles: Various team members were selected using a guiding principle of pre-nutrition knowledge to facilitate the approach to be taken. NIP counselors, KYN, and Diabetic educators were the ones to carry out the real task in the community and health facilities as well as CHWs. Supporting leadership from community and health facility leaders were all involved. This built a great team as supported by Kotter's change model. Beneficiaries were both clients living with and without NCDs 18 to 65 years, male and female.

Activities and services: These activities include training health workers, and CHWs in behavior change counseling and education techniques, screening, and referrals. This is to ensure that NC and education are done in such a way that the outcome will have an impact on the quality of life. Delivering culturally sensitive messages to motivate and empower adults to adopt a healthy dietary lifestyle that will improve their quality of life by preventing them from diseases. The health workers have been trained to provide adequate and appropriate information through NC and Education, make health facilities more friendly, and render services without discrimination (Lepre et al, 2022). During the EBNA, it was realized that adequate Nutrition knowledge entails healthy dietary choices and practices as well as uptake of health services to reduce NCDs and their complications. They have also been trained to screen clients on HTN, CA, DM, and CVDs from history, signs and symptoms, anthropometric assessment in the community, and do referrals to health facilities if need be.

Objective 1: To reduce the rate of deaths and illnesses among adults in Mbingo community from 75% to 35% by the end of 2024.

Strategy: To Screen and enroll all adults at risk for NCDs such as Diabetes, Cancer, Hypertension, and Cardiovascular Diseases.

Activities: Conduct massive sensitization and education to all adults 18 to 65 years in the MBH community.

Objective 2**:** To provide appropriate knowledge on dietary risk to NCDs and guide behavioral interventions for change by June 2024.

Strategy: To promote awareness of healthy diets and NCDs through education.

Activities: Conduct monthly education in churches, schools, social gatherings, and clinics by trained health and community workers.

Objective 3: ensure that all clients with any of the aforementioned NCDs are counseled and educated by the end of 2024.

Strategy: capacity building of health professionals and Community Health Workers (CHWs) to be able to carry out education and counseling.

Activities: Training of health professionals and CHWs in behaviorbehavior and attitude change towards unhealthy dietary practices among adults.

Community utilization of NCD services.

Resource mobilization with leadership.

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Original Article

Objective 4: To promote massive communication education and screening to detect adultsadults at early stages of NCDs for better management by the end of 2024.
Strategy: conduct screening and assessment for NCDs to identify those at risk.
Activity: Conduct massive screening among adults 18 to 65 years in the MBH community.
Refer diagnosed cases with complications to health facilities for better management and to NCD clinics for better networking.

Monitoring and Evaluation (M&E)

Monitoring and evaluation: every project requires effective M&E so as to track progress, and identify more gaps on an ongoing basis (Krishnan et al, 2011). NC and education have indicated signals that the consumption of poor diets by many is a result of not having knowledge of healthy diets and diseases. They eat what is available, and develop NCDs without knowing until complications have set in. With the onset of this awareness project, the number of people who come for KYN screening, and counseling has increased as adults were motivated to carry out health checks especially if experiencing unusual symptoms. The monitoring tool is daily reporting of client turnout and consultation on NCDs as well as a screening register. Secondly, an increased management of NCD cases in health facilities has been observed as compared to previous months an increase in the cases of HTN and DM Cases in clinics. All this is a result of community screening and education. Sudden death rates due to NCDs that were unknown by individuals have also reduced. A critical incident occurred when a family member just slumped and could not talk or walk. On reaching the hospital, the diagnosis showed that the person had chronic HTN, DM, and Cardiovascular Accident (CVA). This was unknown to the family members as the one involved has never complained of any sickness. However, if this was known through education and counseling, it could have been addressed before complications set in.
Therefore, the fruits attained in a short while demonstrate that before the project comes to an end, many will come to the knowledge of healthy eating habits, KYN earlier will prevent NCDs, and improve management and quality of life. Access to NC and education remains the appropriate approach to improving dietary and NCD awareness.
Pekka et al (2002), say that the monitoring system is also vital to assess baseline situations and for monitoring changes in the community. Data for outcome indicators will be collected 3yearly as they are not expected to change rapidly. The change agent shall ensure that health workers trained are providing appropriate evidence-based education and counseling correctly.

Project sustainability

According to Knowles (2014), project continuity demands community participation and effective M&E. empowering community key payers and ensuring their full support through social interaction and local ownership as drivers of the change process (Bloch et al, 2014). In this line, the project operates within the CBCHS NCD-PCP and hence the recommendations and implementation strategies are currently supported by the directorate of the CBCHS NCD-PCP This team has been working with the change agent to undertake an education and counseling program on behavior change about diets and NCD prevention and management among the adult population.
Trained community Health Workers shall operate within the mandate of the project head. They shall ensure that continuous screening and assessment are carried out with possible referral if need be. Secondly, nutrition education and counseling to enhance continuous information spread with connection to NCD clinics shall continue to be a community priority.

Project SWOT Analysis

SWOT stands for strengths, weaknesses, opportunities, and threats which is an important management tool used in identifying the internal and external factors that can influence the achievement of a project (Nicholas, 2015; Sammut-Bonnici et al, 2015). This section outlines SWOT in the healthy diet and NCDs awareness among adults in the MBH community project.

Strengths

These are attributes that help to achieve the project. MBH serves as a referral Hospital in the region and most parts of the country. The hospital has specialized services capable of handling NCDs and their complications. MBH has a training center for doctors both internists and surgeons and so possesses good resources and a learning environment. It has a NIP, department that provides nutrition services to people with malnutrition and chronic NCDs by providing

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Original Article

counseling and support. This department receives nutritional support supplies from other organizations like UNICEF. They are nutrition programs that need to be promoted. Currently, there are 4 nutrition counselors supported by 1 diabetic educator and 2 KYN nurses.

There is a quality Improvement team that uses COPE tools to improve and ensure quality in all departments. This will help to improve approaches to service delivery that will meet client satisfaction hence the foundation for effective education and counselling. There is good leadership when it comes to NIP. Available counseling guides and materials for assessment.

Weaknesses

These are attributes that stop the achievement of the project. The weakness that can hinder this awareness project is that many clients come from far away distances with more serious complications prioritized above NCDs. Some do not even know about the diseases, especially cancer, and some with denial syndrome. Secondly, adequate time is required to make clients understand the diseases and adhere to management to dispel misconceptions and cultural beliefs and practices. Thirdly, lack of concrete NCD policy on diets to reinforce healthy food consumption in the MBH community environment. Clients who come from far away are always eager to go home due to the socio-political crisis in the region thus making nutritional education and counseling brief hindering effective services to clients, especially at various clinics. Inadequate capacity-building sessions may limit knowledge of current Nutrition practices and subsequently adequate nutrition knowledge. Lack of current standard operating procedure manual for counseling and training.

Opportunities

These are external conditions that help achieve project objectives.

The MBH community has a high rate of working-class population with limited time available for cooking who are also becoming increasingly diet-conscious. The CBCHS NCD-CPP is assisting in reducing NCDs by raising awareness of Trans-fats in foods to the population and food industries. Many vendors of healthy fruits and vegetables in the hospital environment thus with increased competition are likely to reduce prices for better affordability. The availability of online information thus increases availability and better access to nutrition information.

Threats

These are external conditions that could damage the project. The heavy workload on counselors from the steady increase of clients with NCDs especially Cancer thus providing counseling to all patients seems to increase the workload. Increase NIP workforce leaving to other jobs leaving the already overstretched workforce with heavy workloads and hence burnout. In addition, cultural beliefs and practices affect the utilization of health services. Many people believe that cancer is spiritual and thus needs prayers and traditional medicines (Sharma et al, 2017). Furthermore, increased demand for ready-prepared meals or a shift from healthy fruits and vegetables to processed ready-food items in the market environment.

Way forward in scaling up counseling and education networks

Plan to strengthen networking, reporting, and evaluating the success of the project. Strengthening NCD clinics by soliciting support from the health facility to provide fruits to the participants quarterly. Community sensitization meetings to use beneficiaries as ambassadors of the program so that the population can develop a sense of ownership by creating better platforms such as Django houses, churches, health centers, and families and family meetings to spread the good news of healthy eating and practices that will improve health and prevent them from diseases. Redman and Larson (2011), say ownership of the project motivates community members to participate and sustain it.

Change Management

Framework for the Change Management Implementation

Implementing this project requires everyone's hand on deck with the writer being the change agent. Key factors involved in bringing change to the organization and community as a whole need to be addressed. For example, Awareness strategies are to be implemented involving adults to have behavior change information towards adopting healthy dietary practices and NCD is being put in place in the organization, health facility, and the health system. Other key players in this project implementation such as trained Health professionals at MBH, the adult population, and the surrounding community leaders need to work together. The

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change process is critical to success with the use of various change theories. Since the project is ongoing, some of the strategies have been applied, when need be, such as nutrition counseling in the health facilities. Because of the goal of helping the population to be aware of the impact of healthy dietary practices on NCD prevention and management, the health belief model (HBM) and Kotter's eight steps change model are considered as the change management process of both the clients and the non-clients of NCDs and health workers.

The rationale of reflecting on the HBM and Kotter's eight-point step model

Health Belief Model

The HBM is a cognitive framework which goes to explains how people use undergo behavior change or not. It entails two important elements; whether an action taken will improve or prevent illness and the motivation to avoid illness (Ritchie et al, 2021). Similarly, HBM expresses the desire to avoid diseases and the belief that health-related action can prevent diseases (Tong et al, 2020). Its components are perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and cues to actions (Tong et al, 2020). Based on the concept of this model, a similar approach has been used to design and evaluate training programs for Nutrition counselors and educators in the MBH community aimed at providing information to the adult population on improving dietary risk factors for NCD prevention and management. These programs should be based on theories. Specific beliefs related to dietary practices and how they influence NCDs are all embodied in the implementation of the HBM. In MBH, it has been observed that the perceptions that co-workers have about counseling and education influence the way counseling and education are done as well, and the behavior of clients towards counseling on NCDs is modeled by the beliefs about food, eating habits, and diseases.
The model chosen to bring about the desired change in improving awareness of healthy dietary practices and NCDs program will be Kotter's eight-point step model. These steps will be applied as follows.

Kotter's Change Management Model
Establishing a sense of urgency

Identifying challenges and sharing them with stakeholders fulfills the first step in Kotter's change model. This will gain needed cooperation and express reasons why the problem needs to be handled (Hackman, 2017). To bring change requires a creative force (Kotter & Cohen. 2002). The need for change was fully shared with MBH administration and leadership, the supervisor for CBCHS NCD-PCP, local community leaders NIP/KYN/Diabetic educators, and counselors, this was based on the EBNA and available statistics presented in the literature on the rates of NCDs. Also, the knowledge gap was identified as identified which if bridged, diets could be improved. After sharing the problem that needs to be addressed, all members realize the magnitude of the consequences of poor diets which does not only result in NCDs but undernutrition as well. They also realize the high burden on the health care system. They all agreed on the urgent need to change the attitudes and behaviors of health workers and clients in the community on how dietary risk factors can influence health.

Creating a guiding coalition

In this step, the change team is formed with various tasks assigned to the right direction and vision (Lagi et al, 2021). Secondly, forming a group with the right mix of position, power, expertise, credibility, and leadership to effectively move the needed change (Hackman, 2017). For this project, the change agent and all the aforementioned team members including CHWs were all engaged with various tasks to implement, monitor, and motivate counselors to provide nutrition education and counselling on improving dietary risk factors and NCDs to bring about change. As Kotter rightly points out it is impossible to bring about change in isolation. The team must work together.

Develop a vision for change

The strong team formed will develop a picture of what the outcome of the project will look like. The future picture will be easy to communicate to all involved in moving the project (Liang et al, 2021). Similarly, the vision accomplished three things which are; clarifying the direction for change, motivating people to take action, in the right direction, and coordinating the actions of different people (Hackman,

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Original Article

2017). For this project, the vision is to see a community free of the avoidable burden of NCDs and eating healthily. The goals and objectives of this project were established in line with the CBCHS department for the fight against NCDs. The guiding coalition develops the strategy for implementing the change vision. The change agent together with other team members developed the vision in clear words about the direction of the project.

Communicate the vision for buy-in:

This involves putting on every strategy, and opportunity possible to continuously communicate the change. This can be through repetition, explanation, and the use of multiple forums for communication (Hackman, 2017). Using team huddles which refers to briefing sessions held among team members to discuss pertinent issues and information. This helps to prepare for unforeseen and strengthens team communication (Pollack& Pollack, 2015; Baloh &Zhu, 2018). In this project, this is effectively going on right from the need assessment to the time the project started. During the training Needs assessment, consultations were done to ensure that the project goals and objectives as well as outcomes were all communicated to the beneficiaries and stakeholders. Management and coordination meetings were held and the aforementioned talked. Even during morning meetings, the counselors and educators are reminded about the project at hand how to report, and the timing for each task.

Empower broad base actions

The first action in this step requires removing any barrier to change. This may involve changing structures, and allocation of resources such as money, time, and support needed to make the change effective (Hackman, 2017; Liag et al, 2021). In this project, every team member, and stakeholder put in collective roles and tasks in the change process which is ongoing. Counselors and educators all play their roles and tasks of screening and offering Nutrition education and counseling services. The training was given to those to carry out the project and equipment was made available for screening, and reporting. Other members carry out monitoring and evaluation all ensuring that the project is well implemented and sustained. Time was allocated for various tasks. However, the more the project is going on, the more clients are received in the unit hence more workload and burnout. The possible barriers are workloads and burnout, limited motivation. However, work schedules and assignment sheets will be reviewed and restructured to ensure that work is evenly distributed and health workers have time to rest. As for motivation to the working staff, a monthly allowance is being allocated during the project period in addition to verbal acknowledgment and appreciation.

Generate short-term wins

Most people will not continue to work hard for change if they see no evidence of success in their efforts. Acknowledging that the change process takes time to achieve, there is a need to build on lessons learned (good achievements) and reflect on past mistakes to avoid repeating them. In this line, there will be a weekly review of implementation approaches to determine successful measures for providing appropriate nutrition counseling and education on NCDs.

Build on the change and never let go

For more change to take place, and for people to continuously acquire knowledge on healthy eating and NCDs, each success in the awareness project will provide an opportunity to build on what went well. Limitations will be improved upon for effective continuity. This will be done through monthly reviews of successes and improvement of better strategies for success.

Incorporate change into culture

Change sticks when it involves the ways things are always done. This can only become part of the culture when people see how the changes have improved health. To make appropriate Nutrition education and counseling become an organizational and community culture, success stories will be celebrated at each opportunity. This will be with evidence of reduced mortality, morbidity, and increased consumption of healthy diets and sales of healthy foods in the MBH community. Involving the leadership at regional, hospital, and NIP units as well as all team members in the prevention and management of NCDs by improving the dietary risk factor, the change will be imminent.

The learner's learning

This framework of learning has really been of help to the writer involving all these levels from basic skills of

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Vol.6 No. 6 (2025): June 2025 Issue
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Original Article

knowledge, comprehension, application, analysis, synthesis, and evaluation. These were all embodied in the learner's learning process. Throughout the learning, the writer could think critically and implement various writing skills to ideas and concepts. Based on the learning, the writer prefers the psychomotor domain in the process of bringing change because it involves people performing some physical tasks in daily life from knowledge acquired through various learning techniques. Changing behaviors from unhealthy to healthy ones and adopting healthy choices all to reduce the burden of NCDs. This will fit well in the project at hand.

Project limitation, conclusion and recommendation

Limitations

Some limitations have been experienced so far as the project is going on which include;

Human resource

The NIP department is generally understaffed with three staff. This leaves a heavy workload on the staff taking into consideration the increasing number of clients who are turning up for screening, education, and counseling due to the awareness project in the community. In effect, the quality of nutrition counseling (NC) and education can be affected leaving clients unsatisfied. Inadequate information may push clients to persistently adhere to myths, fallacies, and their own opinions about dietary practices and NCDs.

Financial resource

There have been some challenges in having funds to implement the project as proposed. The main available funds were from the CBCHS NCD-PCP and the income generated by the NIP department. However, the budget year did not reflect this project as it started after the CBDHS budget meeting. Secondly, client turnout has reduced in MBH due to the socio-political crisis. On the other hand, trained NIP staff are limited to supporting staff that received training only for four days. Therefore, there is the possibility that they still face some challenges in the field of work and so may need additional training on the job which requires finances.

Socio-political atmosphere

This has contributed greatly to hindering project activities. Frequent roadblocks and sporadic confrontations make it difficult for clients to assess health facilities and even for CHWs to carry out community activities. This affects the quality of NC and education.

Learning Process

Implementing effecting NC is challenging but possible. The writer observed that NC and education require intensive initial training to deal with clients who have diverse information and perceptions about diets from many sources. Even CHWs need to accept the responsibility and challenges that come with it and this can only be achieved when they understand the importance and keep learning on the job.

Time

Time has remained a difficult resource to manage when it comes to providing Nutritional services. The writer observed that it takes patience and time to carry out behavior-change counseling and education. This is because the counselor needs to look into the client's perceptions and understand the client's readiness to participate before providing effective counseling. Secondly, community programs need to be planned with community leaders and adult participants which most of the time, they do not turn out in time.

Conclusion

The NCD problem globally, in Cameroon and MBH community is a crucial issue due to increased morbidity and mortality. Several risk factors have been known to contribute to the incidence and prevalence, with unhealthy dietary risk factors being the most prominent among others. This is due to the changing dietary patterns and habits as well as many people switching to westernized lifestyles and urbanization. This implies that if this is not addressed using an evidence-based strategy, NR-NCDs will continue to be on the rise thus, increasing the burden on health systems, and increasing government spending on drugs and family financial burden.

Though there are several strategies to improve diets and prevent and manage NCDs, effective Nutrition counseling

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Original Article

and education to raise and improve awareness on NCD prevention and management remains the foundation of bridging the knowledge gap. The positive impact of nutrition and NCD knowledge has begun to show positive signs as many people now turn to KYNs for screening and counseling. This is as a result of the ongoing awareness project. Therefore, NC and education need to be included as one of the key programs or services to all facilities with well-trained professionals to offer these services. Remember "food is medicine and health is wealth".

Recommendations

The Ministry of Health should set out funds right down to regional levels for Nutrition awareness and campaign programs, and monitor its implementation to ensure that the budgeted funds are used as planned. Secondly. Community awareness campaign programs should be implemented as part of the health communication strategy aimed at raising nutrition awareness of NCDs, with NIP counselors included in the team. Finally, education for change should be made one of the core courses for all nutrition counselor training programs so as to provide evidence-based counseling based on theories and models.

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List of Abbreviation

CA cancer
CBCHS Cameroon Baptist Convention Health Services
CVD Cardiovascular Diseases
CRDs Chronic Respiratory Diseases
CHWs Community Health Workers
DALYS Disability Adjusted Life Years
DM Diabetes Mellitus
EBNA Evidence Bases Needs Assessment
ENT Ear Nose Throat
HBM Health Belief Model
HIV/AIDS Human Immune Virus/Acquired Immune Deficiency Syndrome
HTN Hypertension
KAB Knowledge Attitude Behavior
KYN Know Your Numbers
LMIC Low- and Medium-Income Countries
MBH Mbingo Baptist Hospital
NCDs Non-Communicable Diseases
NCDCPC Non-communicable Disease Prevention Control Program
NIP Nutrition Improvement Programme
NR-NCDs Nutrition Related Non-Communicable Diseases
OPD OutPatient Department
WHO World Health Organization

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Conflict of interest

No conflict of interest was declared.

Availability of data

Data used in this study is available upon request from the corresponding author.

Authors contribution

Jane Frank Nalubega supervised all stages of the study from conceptualization of the topic to manuscript writing and submission.

Authors biography

Jane Frank Nalubega is a research supervisor at Mildmay Uganda.

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