



Health promotion strategies and primary healthcare on management of cardiovascular diseases risk factors among young adults: A narrative review of progress in Delta State, Nigeria.

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Abstract

Background: Cardiovascular Diseases (CVDs) are a group of disorders of the heart and blood vessels which causes premature death in about one-third of those less than seventy years of age. Therefore, for effectively preventing CVDs in adult life there is a need to stop, through health promotion, the development of lifestyle and cardio-metabolic risk factors of CVDs which may start from childhood, adolescence, young adulthood and continuing throughout life.

Aims: This study was aimed at reviewing health promotion strategies in line with the Alma Ata Declaration and its contributions towards management of CVD risk factors.

Method: This was a narrative review. PRISMA-ScR approach was used to select literatures from databases such as PubMed, Google Scholar and WHO Library and Information Networks for Knowledge Database.

Results: The relationship between health promotion and primary healthcare is education for prevention. Conceptual strategies of health promotion among young adults include health education and awareness strategies. The primary healthcare concept is reducing stress to prevent CVD among young adults. Milestone progress in health promotion policies on CVD risk in Nigeria for young adults show focused strategic policies on tobacco control, nutrition, and national mental health Acts. The challenges of policy implementation include lack of awareness about these policies, inadequate healthcare resources, and inadequate surveillance systems to monitor policies.

Conclusion: By focusing on health promotion (primary healthcare prevention) strategies, policies and their genuine implementation will empower healthcare providers and public health professionals, encourage individuals and communities build a strong foundation for lifelong health and well-being.

Keywords: CVD risk factors, health promotion, primary healthcare, policies, young adults, Delta State, Nigeria.

1.1 Introduction

CVDs are the leading cause of death globally, taking an estimated 17.9 million lives each year. CVDs are a group of disorders of the heart and blood vessels and include coronary heart disease, cerebrovascular disease, rheumatic heart disease and other conditions. More than four out of five CVD deaths are due to heart attacks and strokes, and one third of these deaths occur prematurely in people under 70 years of age (WHO, 2021)

The most important behavioural risk factors of heart disease and stroke are unhealthy diet, physical inactivity, tobacco use and harmful use of alcohol. Amongst environmental risk factors, air pollution is an important factor. The effects of behavioural risk factors may show up in individuals later in life as raised blood pressure, raised blood glucose, raised blood lipids, and overweight and obesity. In Delta State, Nigeria, the prevalence of these risk factors among young hyperglycemic adults was found to be high (Nnamudi, Orhue, & Ijeh, 2020). These “intermediate risks factors” can be measured in primary care facilities and indicate an increased risk of heart attack, stroke, heart failure and other

complications (WHO, 2021).

So, prevention of cardiovascular diseases needs to start from prevention of the development of these lifestyle/behavioral risk factors that usually leads to cardio-metabolic risk factors. Therefore, for effectively preventing CVDs in adult life one has to start, by prevention, through health promotion, of the development of lifestyle risk factors starting from childhood, adolescence, young adults and continues throughout life.

1.2 Statement of the problem

According to a 2016 World Health Organization (WHO) report, non-communicable diseases (NCDs) were predicted to be responsible for 29% of all deaths in Nigeria, with cardiovascular diseases (CVDs) accounting for 11% of these fatalities. Heart failure, stroke, and hypertension are among the CVDs that have been identified to be on the rise in Nigeria over the last 20 years (Onyema & Ike, 2020). In Delta State Nigeria, persons mostly affected are the young adults who mostly engage in CVDs risk behaviours (Oguoma et al, 2015; Umuerrri, 2019). This together with the middle-aged group

accounts for nearly half of all CVDs patients and form a sizeable portion of workforce driving the Nigerian economy (Olamide, 2023). Management of these cardiovascular risk factors is mainly by lifestyle modification which is the cornerstone of health promotion that emanated from the Alma Ata declaration of 1977. However, literature reviews on the role of health promotion in the management of cardiovascular risk factors among young adults in Delta State is limited. This study therefore aims at reviewing health promotion strategies and the Alma Ata Declaration: A narrative review of its contributions towards management of cardiovascular diseases risk factors among young adults in Delta State, Nigeria.

1.3. Objectives

The objectives of this narrative review include highlighting the

1. relationship between health promotion and Alma Ata declaration
2. conceptual strategies of health promotion among young adults in Nigeria,

3. Results

A total of 55 articles were selected between January to June, 2024 with 18 articles that

3. CVDs health promotion policies available for young adults in Nigeria and
4. challenges faced in implementing CVDs health promotion policies for young adults.

2. Method

This narrative review was designed giving cognizance to the SANRA principles (Baethge et al., 2019). The PRISMA-ScR method was adopted in the literature search (Page et al., 2021). The focus was on available literature about health promotion on cardiovascular diseases risk factors among young adults in Nigeria. Searching for articles and books used words such as health promotion, cardiovascular diseases risk factors, young adults, between 10-34years, Nigeria and published from 1977 to 2024. Database used was mainly Google Search, however, others databases included PubMed and WHO Library and Information Networks for Knowledge Database (WHOLIS) to comprehensively search for peer-reviewed articles. The results were presented after a critical review of the selected articles.

met the inclusion criteria were reviewed. The retrieved literatures were appraised using validated template for review of

evidence-based practice (Arohaneui Hospice, 2017; Heart Views, 2017), and public health literatures (Heller et al., 2008). The template used in this review was the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) and figure 1 showed PRISMA-ScR flow-chart of the results. The results were

presented in charts and table showing; The relationship between health promotion and Alma Ata Declaration; Conceptual strategies of health promotion among young adults; Milestone health promotion policies on CVD risk in Nigeria for young adults, and; challenges of policy implementation.

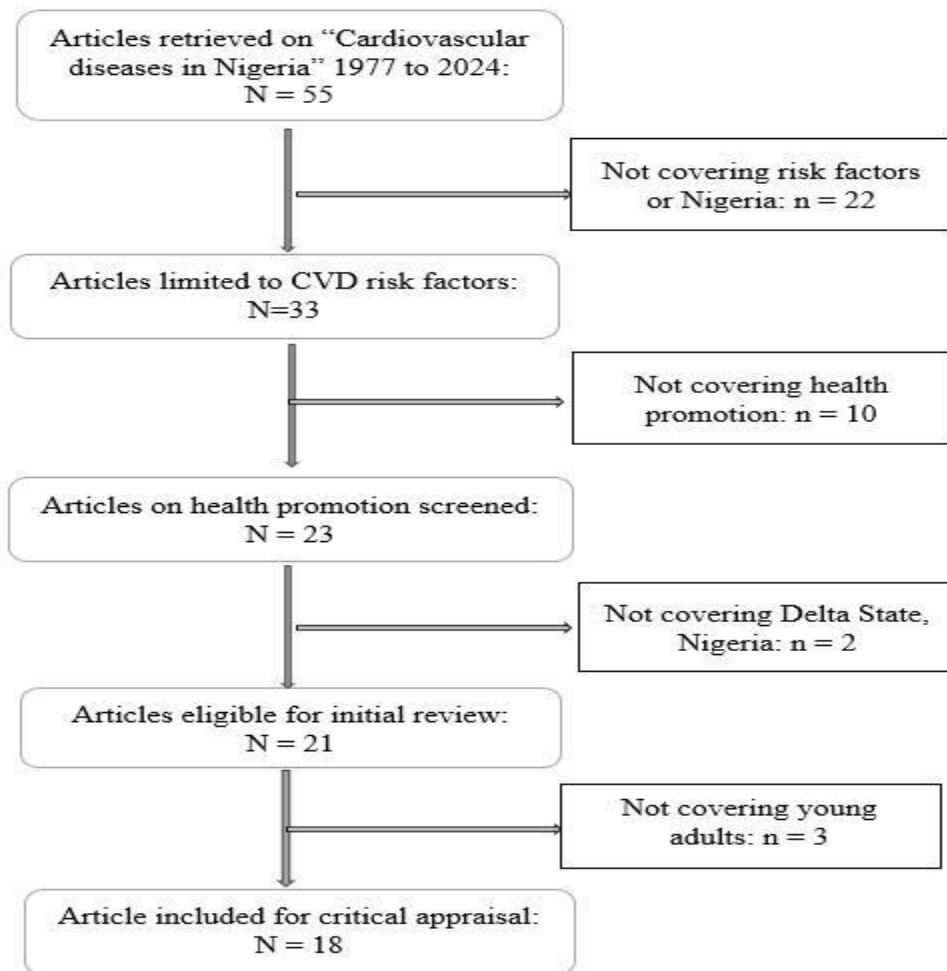


Fig 1: PRISMA-ScR flow-chart showing final selection process

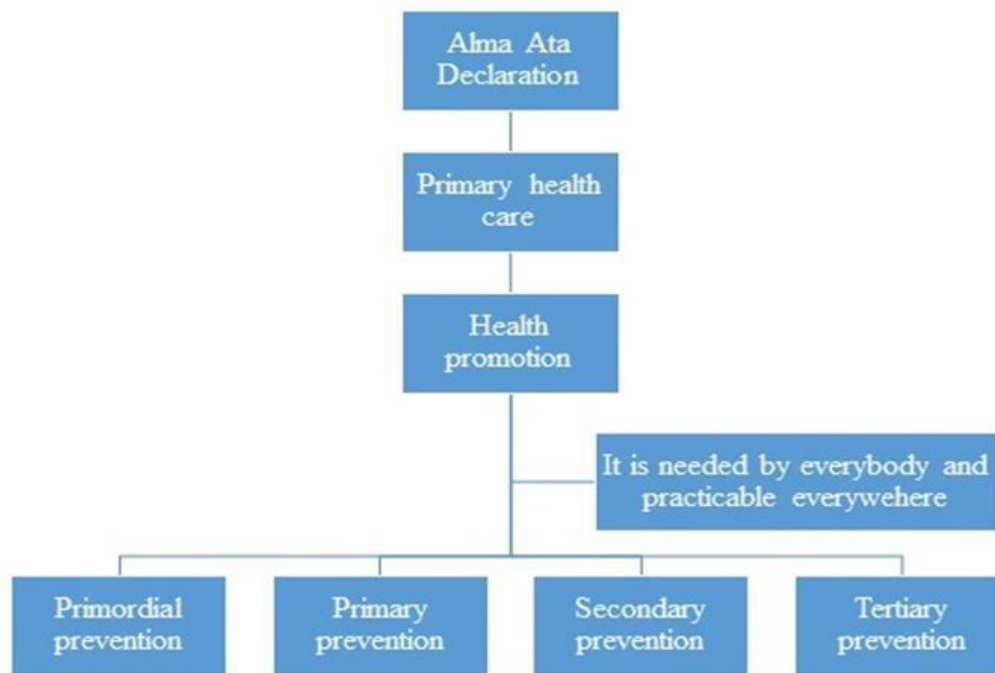


Fig 2: Health promotion vs primary health care and Alma Ata Declaration



Fig 3: Conceptual strategies of health promotion among young adults

Table 1: Milestone health promotion policies on CVD risk in Nigeria for young adults

Year	Policy	Aim
2013	National Non- Communicable Disease (NCD) Policy (FMOH, 2013)	To prevent and control NCDs, such as cardiovascular disease, cancers, chronic respiratory diseases, and diabetes, which are a major public health burden in Nigeria.
2015	Tobacco Control Policy (Lawyers online 2016)	a) Prevent initiation of tobacco use b) Reduce tobacco use prevalence among young c) Protect young people from secondhand smoke exposure d) Educate youth about tobacco-related health risks
2016	National Policy on Food and Nutrition Food and Nutrition in Nigeria (Ministry of Budget and National Planning, 2016)	a) Promote healthy eating habits among Nigerians b) Particularly among people c) To improve nutritional status and reduce diet-related diseases.
2019	National-Health Promotion Policy (FMOH, 2019)	The National Health Promotion policy aim at empowering the Nigerian populace to take timely actions in disease prevention, improving their health and wellbeing as well as taking measures that ensure a healthy society
2020	National Policy on the Health and Development of Adolescents and Young People in Nigeria (FMOH, 2020)	a) Provide accessible acceptable, and high- quality health services for young people in Nigeria (ages 10-24) b) Addressing their unique health needs and promoting health behaviors
2021	<i>Health sector component of National Policy on Food and Nutrition (2021 - 2025).</i>	Update on FMOH The National Strategic Plan of Action for Nutrition 2014-2019.
2022	The Lancet Nigeria Commission (Abubakar et al., 2022)	While the importance of CVD has grown and recognized as the leading contributor to age- standardized mortality. Achievements and limitations of the current health agenda strategies and policies from independence to present are highlighted
2023	National Mental Health Act 2021 (Akanni & Edozien 2024)	a) Promote mental health and wellbeing b) Improve the quality of life of individuals and mental health conditions in Nigeria

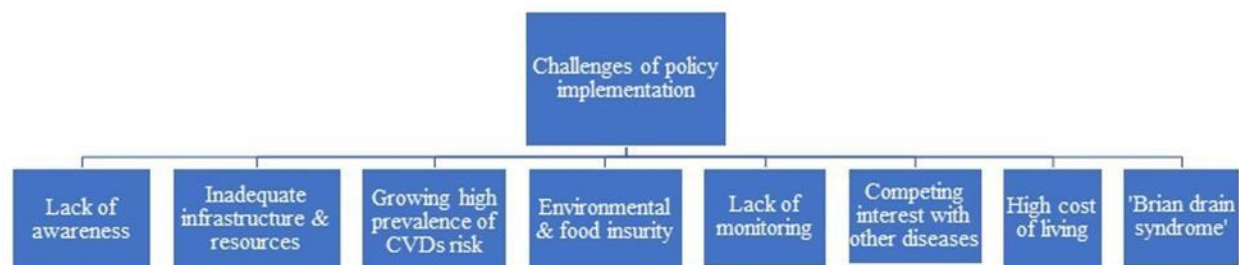


Fig 4: Challenges of policy implementation in primary healthcare practice

4. Discussion

4.1: PRISMA review and reporting system

Published in 2009, the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) statement was created to assist systematic reviewers in openly disclosing the purpose of the review, the actions taken by the authors, and the results obtained (Page et al., 2020). The guideline has had to be updated in the last ten years due to changes in terminology and systematic review technique. The 2009 statement was replaced by the PRISMA 2020 statement, which also contained revised reporting guidelines that took into account improvements in techniques for finding, selecting, evaluating, and synthesizing research. To make implementation easier, the items' display and structure have been changed. In this article, we used PRISMA 2020 because it is a validated template for review of evidence-based practice (Arohaneui Hospice, 2017; Heart Views, 2017), and public health literatures (Heller et al., 2008).

4.2 Relationship between health promotion and primary healthcare

a) What is primordial prevention? The primary healthcare concept

Primordial prevention refers to the prevention of risk factors of diseases, particularly CVD, from developing at the first place. It should be noted that primordial prevention is a health promotion intervention aimed at promoting healthy behaviours and environments to prevent the emergence of risk factors of both communicable and non-communicable diseases. The focus here is CVDs such as high blood pressure, high cholesterol, and obesity; as well as the risk factors including smoking, physical inactivity, excessive consumption of alcohol and unhealthy diet (Gillman, 2015).

It is pertinent to restate the known, that primary healthcare concept revolves around prevention, rehabilitation, and treatment (Uzochukwu, 2017). This includes targeted activities to improve health awareness and, food security as it reduce the prevalence of diseases (Ebuka, 2005). While strategies to avoid development of the risk factors is primordial and curative management of risk factors is primary prevention (Gillman,

2015), it is pertinent to emphasize that the primordial prevention is one of the three basic concepts of primary healthcare, which is prevention.

b) Why health promotion?

Most developed nations of the world had made significant reduction in the burden of cardiovascular disease since early 1980s. It was shown that about 66% of this reduction was due to reduction in the rate of smoking, lower cholesterol (due to better diets and statins), and reduced blood pressure (due in part to better treatment) (Mensah et al, 2017). The above primary preventive measures have had major impact on CVDs (especially coronary heart disease - CHD) mortality, which was fourfold greater than the impact made by secondary prevention. The health benefits of primordial prevention include reducing the burden of chronic diseases, improving the overall health and well-being of the population, and lowers overall healthcare costs, thereby contributing to the economic growth of the nation. It also enhances the quality of life of the populace and supports healthy development and growth. It has been found that these major health benefits are

obtained with even preventive strategies with modest aims. Thus, primary prevention strategies are medically and cost effective but primordial prevention has the potential for greater benefits than can be achieved through existing primary prevention strategies mentioned above. It should be noted that health promotion could be applied at every level of health prevention (Mensah et al, 2017). By way of definition primordial prevention is a health promotion process that enables individuals and communities to increase control over their health. But health promotion which is an essential component of Primary Health Care (PHC) was initiated by the 1978 Alma Ata Declaration.

c) What is Alma Ata Declaration?

Traditionally, over the last two centuries, health has been defined as hospitals and doctors, making healthcare unavailable to people living in remote communities where there are no hospitals or doctors. Even when the hospitals were available, affordability was a problem especially for the low socioeconomic class and less privileged. Due to the above reasons and the universal health coverage promulgated

by WHO, the importance of health as a reflection of social determinant, in 1978 was recognized and formalized into policy (Rifkin, 2018). This policy, also known as “The Declaration of Alma Ata” was supported by all member states of WHO and was titled Primary Health Care (PHC). Primary health care (PHC) was defined as ‘an essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. (WHO Alma Ata, 1978) One of the key aims of PHC is to enable individuals, families and communities to increase control over their own health. This is an important component of PHC known as health promotion.

d) Who needs and where to initiate health promotion:

The link between modifiable cardiovascular risk factors in children and the development of disease in adulthood is becoming more evident. Thus the target population for

primordial prevention includes children, adolescents, and young adults, communities at high risk for chronic diseases, and populations with low health literacy or limited access to healthcare. Rather than limiting the progression of existing risk factors, primordial prevention aims to prevent cardiovascular risk factors from appearing in the first place (Olufayo et al, 2023). Strategies for primordial prevention focus on the importance of a healthy diet and body mass index, sufficient physical activity, the absence of smoking, and recognition of factors such as normal blood pressure, blood cholesterol and blood glucose, for their importance on health over the life course of the child through adolescence to adulthood.(German et al, 2022). So, in a nut shell everybody needs health promotion and should be practiced everywhere, not only in the hospitals.

4.3 Conceptual strategies of health promotion for young people in Nigeria

Strategies for primordial prevention in adolescents and young adults in Nigeria includes health education and awareness, promoting physical activity (Activities of

Daily Living-ADL) and lifestyle choices, encouraging healthy dietary habits, reducing stress, encouraging social support and community engagement, and creating healthy development and growth (Jayashinghe & Hill, 2023). These strategies should be executed not solely by the health professionals but should also engage government parastatals, NGOs, institutions, public health practitioners, and the community.

a) Health education and awareness strategies

In Delta State, a study by Umuerrri in 2019, showed that there was an overall poor knowledge of heart disease among young adults living in the State. Therefore, introduction of school-based health education program is an important health promotion strategy that can be used in preventing CVDs in Delta State, Nigeria. Here students are educated on healthy lifestyle choices, stress management lessons, symptomatology of cardio-metabolic diseases and the extent of damage of these health conditions in the community. These programs are incorporated into the school learning

curriculum with practical sections attached to it (Pulinemo, 2020). Communities could be involved in health education of young adults through community-based outreach and youth engagement. In this case the community will organize events such as health screenings, providing educative resources, and platform for interactive activities among young adults, to promote healthy living (Kadariya, 2023). The State/Local Government through collaboration with local healthcare providers and organizations (Collaborative Partnerships), work with local healthcare providers,

community organizations, and government agencies to better amplify health education and awareness efforts (Rajabi, 2021).

b) Promoting physical activity (Activities of Daily Living-ADL) and lifestyle choices

Promoting physical activities and healthy lifestyle choices among young adults in Delta State, Nigeria is crucial for their overall health and well-being because a study done in the State had suggested that there is a need to make policies that will encourage regular physical activity (Ibekwe, 2015). Therefore, one of the

strategies to achieve this may include “School-based programs” where physical and health education will be integrated into school curricula and emphasizing the importance of regular physical activity and healthy lifestyle choices through social media platforms, seminars and workshops. Adolescents and young people should be encouraged to engage in at least one sporting activity while in school (Frömel, 2020). School sports such as inter-house sports, Nigerian Universities Games (NUGA), Nigerian Polytechnic Games (NIPOGA) and the junior athletics championships should all be encouraged. Community-based initiatives should be encouraged where communities organize community based events, such as fun runs, walkathons, and fitness classes, to encourage physical activity and social interaction, especially for young people. Resources such as social media influencers and celebrities may be used to promote physical activity and healthy lifestyle choices among young adults (Harris, 2022). Establishment of affordable and accessible recreational facilities, such as gyms, parks, and sports fields in schools, workplaces and within the communities should be encouraged and this

could be achieved through public or private organizations or via public-private partnership to encourage physical activity at the community level (Garner-Purkis, 2020). Employers of labour should be encouraged to implement workplace wellness programs, such as physical activity sessions, health screenings, and healthy food options. These session/s could be as little as a ten minute brisk walk ones or twice a week and this may spur individuals to initiate such sessions in their homes and places of worship. Also various social group intervention strategies to encourage parents, teachers, and community leaders to model physical activity and healthy lifestyle choices for young adults should be initiated. (Halling et al, 2023; Rachman et al, 2024).

c) Encouraging healthy dietary habits

Unhealthy dietary intake is an important lifestyle/behavioural risk factor of CVDs that predisposes to cardio-metabolic risk factors such as obesity, high cholesterol, diabetes and high blood pressure therefore, there is a need to educate young adults about the importance of healthy eating and the risks associated with unhealthy diets.

Ibekwe in his study of modifiable risk factors of hypertension in Delta State, Nigeria, also suggested the need to make policies that will encourage healthier dietary choices while making them available, affordable and accessible to all. It is therefore, important to introduce this dietary education into school curriculum as early as possible. Healthy food options in schools and workplaces should be encouraged to provide healthy food such as fruits, vegetables, and whole grains in the school/workplace canteens. (Barnes et al, 2020) Eateries/canteens should be encouraged to promote traditional Nigerian cuisine, which often features healthy ingredients like vegetables, legumes, and whole grains. In other to promote our traditional Nigerian cuisine, communities are encouraged to organize community events, such as cooking classes and food festivals, to promote healthy eating and social interaction. Finally, an important strategy is to advocate for policies and programs that support healthy dietary habits, such as taxes on sugary drinks and subsidies for healthy food options. Also the government should effectively collaborate with the agricultural sector to supply

policies and reforms for improvement within the provision of fruits and vegetables such that affordability is ensured (Olamide, 2023).

d) Reducing stress among young adults

Stress is a significant predisposing and aetiological factor for developing cardiovascular diseases in young adults. Reducing stress among young adults in Delta State, Nigeria requires a multi-faceted/multidisciplinary approach and therefore working with other professional becomes very important. This have been found to be necessary because a study done in the Delta State University, Abraka, among undergraduates showed that all parameters of stress were found to be high ranging from causes of stress, effect of stress and stress management strategies (Okoro, 2024). Health promotion strategies for stress management such as mindfulness, meditation, yoga and exercises could be taught in schools and incorporated into school's curriculum. Workshops and seminars could be organized in schools and communities to increase public awareness and enlightenment on the effects and importance of management of stress. Also

creating safe parks for relaxation and stress reduction in schools, workplaces (especially during breaks) and within the community is another strategic initiative to reduce stress (Lemay, 2019; Parson, 2022).

e) Environmental modifications

Strategies to address hazards/occupational risks should be primary to the establishment of any school/workplace. The government should also enact and implement policies that promote smoke-free environments in all work sites, institutions, indoor public places, and other public places. More importantly, policy measures on the creation of health-promoting environments should be implemented before the licensing of any establishment (school/workplaces), and the means to effectively monitor the adoption of these policies should be put in place (Tochukwu Sibeudu, 2022; Yilmaz, 2022).

f) Encouraging social support and community engagement

This is a vital health promotion strategy among young adults in Nigeria. Government should put policies in place that will encourage creation of community-

based initiatives that will organise community/cultural events, such as festivals, clean-up initiatives, and volunteer programs, to bring young adults together and foster social connections. The formation of these social clubs and groups will encourage young adults to join social clubs, sports teams, or hobby groups that align with their interests, promoting social interaction and a sense of belonging. Mentorship programs is another strategy that may provide social support for young adults by pairing them with positive role models and mentors, including but not limited to religious activities, neighborhood programs and community service projects that promote social support (Haldane, 2019; Effiong, 2023)

g) Creating healthy development and growth among young people

Creating healthy development and growth among young people in Nigeria as a health promotion strategy requires a multifaceted approach. Provision of accurate and age-appropriate information on physical, emotional, and mental health and ensuring access to balanced diets and nutritious meals, particularly in schools and

communities is a good strategy for healthy development and growth among young people (Hamulka et al, 2018). Encouraging regular physical activity and sports participation to develop physical and mental well-being along with offering counseling, peer support, and psychological services to address mental health concerns is an important health promotion strategy for young people (Gkintoni, 2024). Providing access to quality healthcare

services, including preventive care and health screenings and strengthen family bonds with provision of parental support through education and resources will enhance the growth and development of young people thereby helping them to resist the developing CVDs in future (Abubakar et al, 2022; Barnes et al., 2020).

4.4 Health promotion policies for cardiovascular risk in Nigeria for young people: Implications on primary healthcare concepts

Of the policies on health promotion for young people on CVDs risk factors reviewed, eight had contributed most to health promotion. The National Policy on the Health and Development of

Adolescents and Young People in Nigeria addressed some of the health promotion issues of CVDs risk factors, especially risky heart-health behaviours among young people in Nigeria. Its overall goal is to ensure that the Nigerian health system is adequately adolescent- and youth responsive and that primary healthcare deliver high quality, gender-sensitive, equitable health services that effectively meet the preventive, curative and rehabilitative health needs of all young people. Thus, reducing morbidity, disability, and preventable mortality rates as well as optimally contributing to their wellbeing and development (FMOH, 2020). The National Health Promotion policy aim at empowering the Nigerian populace to take timely actions in disease prevention, improving their health and wellbeing as well as taking measures that ensure a healthy society (FMOH, 2019).

The mental health policy of Nigeria is based on the principles of social justice and equity. It also covers mental health promotion, as well as the primary healthcare concepts of prevention, treatment, and rehabilitation, as well as the facilitation of effective inter-sectoral collaboration (Akanni & Edozien, 2024). The

other policies listed in table 1 above also had important contributions towards health promotion for CVDs risk in Nigeria for young people. Delta State has taken several steps to improve health promotion and access to healthcare, one of which is the Delta State Contributory Health Commission (DCHC) which was established in 2015, with the aims of providing affordable and quality healthcare to all residents of Delta State (Onyebadi et al, 2023).

4.5 Challenges in implementing of health promoting policies in Nigeria

Implementing health promotion policies for cardiovascular risk in Nigeria for young adults faces several challenges. One of the most important challenges facing the implementation of these policies is the lack of awareness and knowledge of these policies by the young adults and the healthcare providers. So, when the awareness is not there the policy may not impact meaningfully on those persons these policies were meant for. Also, even when these policies are existing, there may be inadequate healthcare infrastructure and resources, to execute these policies. The prevalence of the CVD risk factors, such as

obesity, hypertension and diabetes is high and with inadequate healthcare infrastructure implementing these policies becomes difficult. The implementation of policy on food and physical activity may also be affected by the limited availability and accessibility of healthy food options, due to food insecurity, and safe spaces for physical activity due to insecurity in our environment.

Most of our facilities do not have adequate data and surveillance systems to monitor cardiovascular disease trends and track policy effectiveness. Therefore, without proper documentation and medical record keeping, implementation, monitoring, and evaluation of policies become difficult. Policy implementation for a particular health condition becomes more difficult when it has competing priorities such as infectious disease, maternal and child health that divert attention and resources away from cardiovascular health. Accessibility to health care promotion activity even with good policies may be marred by our cultural and social norms that promote unhealthy health seeking behaviors among our young adults.

Recently one of the major challenges of health promotion policy implementation is the high cost of living which has limited the availability of affordable and effective treatments for cardiovascular diseases. Also the health sector in recent times has also been depleted of skilled and experience health care professionals due to the “brain drain” syndrome. It is one thing for policies to be made and another is the availability of political will and funding to execute these health promotion policies. So where these are not available, implementation becomes a challenge (WHO, 2020).

4.6: Implication for primary healthcare practice

Some solutions to overcome the above challenges have been known. Most importantly the awareness of health promotion programs and its benefits among young adults and healthcare providers should be increased by implementing an all-inclusive health promotion program primary healthcare facility, as well as in schools and workplaces. To use new technologies such as mobile app online platforms etc to disseminate information to a wider audience. Advocacy should be used to

increase political will of those in power to increase funding for health promotion and CVDs prevention programs.

The government should strengthen healthcare infrastructure and access by providing equipment, security in our hospitals, increase manpower, better working conditions and remuneration so as to reduce movement of health worker abroad for greener pastures. Specific interventions should be used to address socio-economic and cultural hindrances to health promotion activities against CVDs risk factors such as increasing employment for young people, establishing more youth empowerment programs, providing soft loans to establish those who complete these programs, debunking cultural myths and misconception about health promotion and fostering health seeking behaviours among young adults. Lastly, more research is necessary to inform evidence-based policies and programs particularly longitudinal studies to examine the impact of risk factors on CVDs outcomes and investigation into environmental factors influencing cardiovascular health especially among young adults.

5 Conclusion

This narrative review study focused on health promotion (primordial prevention) as it relates to the Alma Ata Declaration, which focuses on primary healthcare, and strategies among young adults in Delta State Nigeria. It looked at health promotion policies that create conducive environments for making healthy choices, affordable and available access to quality healthcare services as well as improving air quality and reducing pollution, are essential for motivating people to adopt and sustain healthy behaviours. It showed that addressing the challenges of implementing health promotion vis-à-vis primary healthcare policies, require a comprehensive approach that involves government, civil society, private sector, and individual efforts to create an enabling environment for healthy behaviors and access to quality primary healthcare services. Therefore, by focusing on primordial prevention, primary healthcare providers and public health professionals can help individuals, especially young adults, and communities build a strong foundation for lifelong health and well-being.

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