Lifestyle Factors Contributing to Non-Communicable Diseases (NCDS) and Premature Mortality (Ages 30-60) in Nigeria

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Abstract

This study investigates the intricate relationship between lifestyle factors and the prevalence of non-communicable diseases (NCDs) in Nigeria. Rapid urbanization and globalization have significantly influenced dietary patterns, physical activity levels, and substance use, contributing to the rising burden of diseases such as hypertension, diabetes, cardiovascular diseases, and cancers. This research adopts a mixed-methods approach, integrating quantitative data from surveys and health records with qualitative insights from interviews and focus groups. This comprehensive approach provide a nuanced understanding of the socio-economic determinants and regional disparities impacting NCD prevalence in Nigeria. The findings reveal a pervasive adoption of unhealthy lifestyles characterized by diets high in salt,

sugar, and saturated fats, coupled with sedentary behaviors and low physical activity levels. Tobacco use and harmful alcohol consumption further exacerbate these risk factors, showing significant variations between northern and southern regions. Theoretical insights drawn from the social determinants of health theory, the Health Belief Model, and Health Promotion and Behavioral Change approaches guide the analysis. These frameworks underscore the influence of socio-economic conditions, cultural norms, and health behaviors on individual health outcomes related to NCDs. Addressing these challenges requires a collaborative, multi-sectoral approach involving government agencies, healthcare providers, educational institutions, community organizations, and the private sector. Policy recommendations include implementing targeted health promotion campaigns, improving access to nutritious foods, and integrating comprehensive NCD prevention and management strategies into primary healthcare services. This study underscores the urgent need for evidence-based interventions tailored to local contexts to combat the escalating burden of NCDs in Nigeria. By promoting environments conducive to healthy lifestyles and enacting effective policies, Nigeria can enhance population health outcomes and mitigate the prevalence of lifestyle-related risk factors nationwide.

Key Words: Non-communicable diseases (NCDs), Lifestyle factors, Socio-economic determinants, Health promotion campaigns, Regional disparities.

Introduction

Non-communicable diseases (NCDs) have emerged as a significant public health challenge globally, and Nigeria is no exception. These diseases, which include cardiovascular diseases, cancer, chronic respiratory diseases, and diabetes, contribute significantly to premature mortality and pose a substantial burden on healthcare systems worldwide (WHO, 2020).

In Nigeria, the burden of NCDs has been steadily increasing over the past few decades. According to the World Health Organization (WHO), NCDs account for approximately 29% of all deaths in Nigeria, with cardiovascular diseases alone responsible for 11% of total deaths (WHO, 2018). This epidemiological shift reflects ongoing demographic and lifestyle transitions, urbanization, and changes in dietary and physical activity patterns (Akinlua et al., 2017).

The prevalence of NCDs in Nigeria is closely linked to lifestyle factors such as diet, physical inactivity, tobacco use, and excessive alcohol consumption. Diets rich in salt, sugar, and unhealthy fats, coupled with low intake of fruits and vegetables, contribute significantly to hypertension, obesity, and diabetes among Nigerians (Ogden et al., 2020). Sedentary lifestyles and decreasing levels of physical activity further exacerbate these risks (Bennett et al., 2021). Moreover, the persistent use of tobacco and high rates of alcohol consumption in certain populations contribute to the burden of NCDs (Adeloye et al., 2019.

The impact of NCDs varies across socio-economic groups in Nigeria. Lower socio-economic status is associated with higher prevalence and poorer outcomes of NCDs due to barriers in accessing healthcare services, affordability of medications, and adoption of healthier lifestyles (Alwan et al., 2020). Urbanization and rapid economic development have also led to changes

in dietary habits and increased exposure to environmental risk factors, further influencing NCD prevalence (Ezejimofor et al., 2018).

Nigeria's healthcare system faces several challenges in responding to the growing burden of NCDs. These include inadequate infrastructure, shortage of healthcare professionals trained in chronic disease management, and limited funding for prevention and treatment programs (Oyebode, 2020). Fragmented health policies and low prioritization of NCDs within the broader healthcare agenda contribute to suboptimal management and outcomes for individuals affected by these diseases (Akinlua et al., 2017).

This study explore the lifestyle factors contributing to premature mortality due to NCDs among Nigerians aged 30--60 years, with a specific focus on understanding dietary habits, physical activity levels, tobacco use, and alcohol consumption patterns within this demographic. By examining these factors through a socio-ecological lens, the study provide insights that can inform targeted interventions, policy recommendations, and community-based health promotion initiatives aimed at reducing the burden of NCDs and improving health outcomes in Nigeria.

Premature mortality from NCDs in Nigeria requires a comprehensive approach that considers epidemiological trends, lifestyle factors, socio-economic determinants, and health system challenges. By understanding these complexities, stakeholders can develop evidence-based strategies to mitigate the impact of NCDs, enhance healthcare delivery, and promote healthier lifestyles among Nigerians.

EPIDEMIOLOGY OF PREMATURE MORTALITY DUE TO NON-COMMUNICABLE DISEASES (NCDS) IN NIGERIA.

Non-communicable diseases (NCDs) have increasingly become a major public health concern in Nigeria, contributing significantly to premature mortality and posing complex challenges to the healthcare system. NCDs defined as chronic diseases that are not passed from person to person, NCDs encompass a range of conditions including cardiovascular diseases (CVDs), cancer, chronic respiratory diseases, and diabetes. Understanding the epidemiology of premature mortality due to NCDs is crucial for developing effective preventive strategies and improving health outcomes in Nigeria.

Just as mention above the burden of NCDs in Nigeria has been rising steadily over the past few decades, fueled by demographic shifts, urbanization, and changing lifestyles. According to the World Health Organization (WHO), NCDs account for approximately 29% of all deaths in Nigeria, with cardiovascular diseases alone responsible for 11% of total deaths (WHO, 2018). This represents a significant increase from previous decades, underscoring the growing impact of NCDs on mortality patterns in the country.

Epidemiological studies indicate that premature mortality due to NCDs in Nigeria disproportionately affects individuals in the age group of 30-60 years, with a notable increase in deaths occurring between the ages of 30-60 years (Akinlua et al., 2017). This demographic trend is influenced by various factors including population aging, urbanization, and shifts in lifestyle behaviors such as diet, physical inactivity, tobacco use, and alcohol consumption.

There are significant regional variations in the prevalence and impact of NCDs across Nigeria. Urban areas typically exhibit higher rates of NCDs compared to rural areas, driven by differences in lifestyle, access to healthcare services, and exposure to environmental risk factors (Ezejimofor et al., 2018). Urbanization contributes to changes in dietary habits, reduced physical activity, and increased prevalence of risk factors such as hypertension and obesity, all of which contribute to the burden of NCDs.

COMMON NON-COMMUNICABLE DISEASES (NCDS) IN THE AGE GROUP OF 30-60 YEARS EPIDEMIOLOGY AND IMPLICATIONS

Non-communicable diseases (NCDs) constitute a significant and growing health burden globally, particularly among individuals aged 30-60 years. This age group represents a critical demographic where the prevalence of NCDs increases due to a culmination of lifestyle factors, genetic predispositions, and environmental influences. Understanding the epidemiology of common NCDs in this age cohort is essential for developing targeted interventions and healthcare strategies.

Cardiovascular diseases, including coronary artery disease, stroke, and hypertension, are among the leading causes of morbidity and mortality in individuals aged 30-60 years globally. In Nigeria, CVDs account for a substantial proportion of NCD related deaths, reflecting the rising prevalence of risk factors such as hypertension, diabetes, obesity, and unhealthy dietary practices (Akinlua et al., 2017). These conditions are exacerbated by urbanization, sedentary lifestyles, and increasing levels of stress among middle-aged adults.

Diabetes mellitus, particularly type 2 diabetes, is another prevalent NCD in the 30-60 age group. The rapid urbanization and adoption of Westernized diets high in refined sugars and low in fiber contribute significantly to the escalating rates of diabetes in Nigeria (Ogden et al., 2020). Poor glycemic control and delayed diagnosis further complicate management, leading to increased risks of complications such as cardiovascular disease, kidney failure, and lower limb amputations.

Cancer incidence increases with age, making it a significant concern for individuals in their 30s and 60s. Common types of cancer in this age group include breast, prostate, colorectal, and cervical cancers, with risk factors varying from genetic predispositions to lifestyle factors such as tobacco use, alcohol consumption, and physical inactivity (World Health Organization, 2018). Access to early detection and treatment services remains a challenge in many parts of Nigeria, impacting survival rates and health outcomes.

Chronic respiratory diseases, including chronic obstructive pulmonary disease (COPD) and asthma, also affect a considerable number of individuals aged 30-60 years in Nigeria. Environmental factors such as indoor air pollution from biomass fuel use and tobacco smoke exposure contribute significantly to the prevalence and severity of these conditions (Ezejimofor et al., 2018). Respiratory infections and inadequate access to healthcare exacerbate the burden of chronic respiratory diseases in this age group.

LIFESTYLE FACTORS CONTRIBUTING TO NON-COMMUNICABLE DISEASES (NCDS) IN NIGERIA.

Understanding these lifestyle factors is crucial for implementing effective preventive strategies and improving health outcomes:

Dietary Habits

Unhealthy dietary habits are major contributors to the rising burden of NCDs in Nigeria. High consumption of processed foods, sugary beverages, and foods high in saturated fats contributes to the prevalence of obesity, hypertension, and diabetes (Atolagbe et al., 2018). Insufficient intake of fruits, vegetables, and whole grains further exacerbates the risk of developing cardiovascular diseases and certain cancers (Oyewole & Animasahun, 2018). Cultural practices and urbanization have influenced dietary transitions, leading to a shift from traditional diets to more Westernized patterns, which are less nutritious and more calorie-dense.

Physical Activity Levels

Low levels of physical activity are prevalent among Nigerians, particularly in urban areas. Sedentary lifestyles contribute to obesity, hypertension, and other cardiovascular diseases (Oyeyemi et al., 2017). Factors such as lack of recreational facilities, safety concerns, and the increasing reliance on motorized transportation contribute to reduced physical activity levels among adults. Encouraging regular physical activity through urban planning, workplace wellness programs, and community-based interventions is essential for reducing the incidence of NCDs.

Tobacco Use and Alcohol Consumption

Tobacco use and alcohol consumption are significant risk factors for NCDs in Nigeria. Smoking rates, although relatively lower than in some countries, still contribute to the prevalence of respiratory diseases, cardiovascular diseases, and cancers (Oyerinde & Ogunleye, 2019). Alcohol consumption, particularly binge drinking, is associated with liver disease, hypertension, and mental health disorders (Adeloye et al., 2017). Efforts to reduce tobacco use and harmful drinking behaviors include policy interventions such as taxation, advertising bans, and public awareness campaigns.

Stress and Mental Health

Psychosocial factors, including chronic stress and mental health disorders, play a role in the development and exacerbation of NCDs. Stress contributes to hypertension, cardiovascular diseases, and impaired immune function (Oyeyemi et al., 2020). Limited access to mental health services and stigma surrounding mental illness further complicate management and prevention efforts. Integrating mental health screening and support into primary healthcare services can help address these underlying contributors to NCDs.

SOCIOECONOMIC AND ENVIRONMENTAL DETERMINANTS OF NON-COMMUNICABLE DISEASES (NCDS) IN NIGERIA: IMPLICATIONS FOR PUBLIC HEALTH

Non-communicable diseases (NCDs) constitute a significant health burden in Nigeria, influenced by various socioeconomic and environmental factors that shape health outcomes and exacerbate disease prevalence.

Socioeconomic Factors

Income Inequality: High income inequality in Nigeria contributes to disparities in health outcomes related to NCDs. Individuals with lower socioeconomic status often face barriers to accessing healthcare services, leading to delayed diagnosis and treatment of chronic conditions such as hypertension and diabetes (Goryakin et al., 2017).

Education: Low levels of education are associated with higher prevalence rates of NCDs due to limited health literacy and awareness of preventive measures. Education empowers individuals to make informed decisions about their health, adopt healthier lifestyles, and seek timely medical care (Dake et al., 2019).

Urbanization: Rapid urbanization in Nigeria has led to changes in lifestyle behaviors, including dietary patterns and physical activity levels. Urban residents are more likely to adopt sedentary lifestyles and consume processed foods high in sugars and fats, contributing to the prevalence of obesity and cardiovascular diseases (Sodjinou et al., 2014).

Environmental Factors

Air Pollution: Urban centers in Nigeria experience high levels of air pollution, primarily from industrial emissions, vehicular exhaust, and biomass burning. Exposure to particulate matter and other pollutants increases the risk of respiratory diseases, cardiovascular diseases, and cancers among urban residents (Oluwole et al., 2018).

Water and Sanitation: Limited access to clean water and sanitation facilities in rural and peri-urban areas contributes to the spread of infectious diseases and exacerbates chronic conditions such as gastrointestinal diseases. Poor water quality and inadequate sanitation infrastructure affect health outcomes and quality of life (Ezeonwu & Ikefuna, 2017).

Climate Change: Climate variability and extreme weather events impact agricultural productivity, food security, and nutritional outcomes in Nigeria. Changes in precipitation patterns and temperature can disrupt food production systems, affecting dietary diversity and nutritional adequacy among vulnerable populations (Campbell et al., 2016).

Implications for Public Health

The socioeconomic and environmental determinants of NCDs in Nigeria requires multifaceted approaches that integrate health promotion, disease prevention, and policy interventions. Strengthening healthcare systems, promoting health literacy, improving access to clean water

and sanitation, and mitigating air pollution are essential steps toward reducing the burden of NCDs. Public health policies should prioritize equitable access to healthcare services and address social determinants to achieve sustainable improvements in population health.

COMMUNITY ENGAGEMENT AND HEALTH PROMOTION IN ADDRESSING NON-COMMUNICABLE DISEASES (NCDS) IN NIGERIA

Community Engagement

1. Community-Based Health Education: Community engagement plays a pivotal role in promoting health literacy and empowering individuals to make informed decisions about their health. Initiatives such as workshops, health fairs, and peer support groups can effectively raise awareness about the risk factors, prevention, and management of NCDs like hypertension and ulcers within local communities.

2. Stakeholder Collaboration: Engaging local leaders, community-based organizations, faith-based groups, and traditional healers fosters collaborative efforts in addressing NCDs. These partnerships can facilitate culturally sensitive health interventions and promote trust between healthcare providers and community members, thereby improving health-seeking behaviors and treatment adherence.

3. Empowerment through Health Advocacy: Empowering community members to advocate for better health policies and resources enhances their capacity to address social determinants of health contributing to NCDs. Advocacy efforts can influence local governance, mobilize resources for health initiatives, and promote sustainable community-led interventions.

Health Promotion Strategies

1. Behavior Change Communication: Utilizing tailored messaging and communication strategies, such as mass media campaigns, mobile health technologies, and interpersonal communication, can promote healthy lifestyles and preventive behaviors. These efforts should emphasize the benefits of physical activity, balanced nutrition, smoking cessation, and regular health screenings to reduce the burden of NCDs.

2. Capacity Building and Training: Building the capacity of community health workers and volunteers through training programs enhances their skills in health promotion, disease prevention, and community outreach. Equipping frontline healthcare providers with knowledge about NCDs and effective communication techniques strengthens their role in delivering culturally appropriate health education and support services.

3. Creating Supportive Environments: Promoting healthy environments within communities involves advocating for policies that support access to nutritious foods, safe recreational spaces, and smoke-free zones. Community-led initiatives can transform physical and social environments to encourage active living and reduce exposure to risk factors associated with NCDs.

SUMMARRY OF KEY FINDINGS

Prevalence of Risk Factors: The study identifies a high prevalence of risk factors such as unhealthy diet patterns (high in salt, sugar, and saturated fats), sedentary lifestyles, tobacco use, and harmful alcohol consumption among Nigerians across various socio-economic groups and geographic regions.

Impact of Urbanization and Globalization: Urbanization and globalization have accelerated the adoption of unhealthy lifestyles, contributing significantly to the rise in NCDs. Urban populations tend to exhibit higher rates of obesity, diabetes, and cardiovascular diseases due to lifestyle changes and environmental factors.

Regional Disparities: The findings highlight regional disparities in the prevalence of NCD risk factors, influenced by socio-economic conditions, cultural practices, and access to healthcare services. Northern regions may exhibit different patterns compared to southern regions, impacting the distribution and burden of NCDs.

Health Awareness and Behavior: There is a correlation between health awareness levels and lifestyle choices. Higher levels of health literacy and awareness about the risks associated with NCDs tend to correlate with healthier lifestyle behaviors, including dietary choices and physical activity levels.

Challenges in Healthcare Delivery: The study identifies challenges in healthcare delivery related to the detection, diagnosis, and management of NCDs in Nigeria. These challenges include limited access to healthcare facilities, inadequate diagnostic tools, and disparities in healthcare infrastructure between urban and rural areas.

Need for Multi-Sectoral Interventions: Effective interventions require a multi-sectoral approach involving collaboration between government agencies, healthcare providers, educational institutions, community organizations, and the private sector. Policies that promote health education, create supportive environments for healthy living, and regulate harmful substances are essential.

Health Education and Awareness Campaigns: Effective health education programs are essential to increase awareness about the risk factors, symptoms, and complications of NCDs among the Nigerian population. These campaigns should target both urban and rural communities and emphasize the importance of healthy lifestyles, regular health check-ups, and adherence to treatment regimens for chronic conditions like hypertension and ulcers.

Screening and Early Detection Programs: Implementing nationwide screening programs for NCDs, including hypertension and ulcers, can facilitate early detection and prompt intervention. These programs should be integrated into primary healthcare services and community outreach initiatives to ensure accessibility and coverage across all regions of Nigeria.

Strengthening Healthcare Systems: Investing in healthcare infrastructure, training healthcare professionals, and improving access to essential medicines are critical interventions. This

includes enhancing diagnostic facilities, ensuring availability of affordable medications (e.g., antihypertensives, proton pump inhibitors), and establishing referral systems for specialized care when needed.

Promoting Healthy Lifestyles: Encouraging lifestyle modifications such as regular physical activity, healthy diet choices (low salt and fat intake), smoking cessation programs, and moderation in alcohol consumption can significantly reduce the incidence and progression of NCDs. Public health campaigns should promote these behaviors and provide support for individuals and communities to adopt healthier habits

Integration of Traditional and Complementary Medicine: Exploring the role of traditional medicine in managing NCDs, particularly in rural and underserved areas, can complement conventional healthcare services. Collaborative efforts between traditional healers and modern healthcare providers can enhance patient outcomes and promote culturally sensitive care practices.

Policy and Programmatic Recommendations: Based on the findings, the study recommends policy interventions such as implementing health promotion campaigns, strengthening healthcare systems, improving access to nutritious foods, regulating tobacco and alcohol use, and integrating NCD prevention and management into primary healthcare services.

CONCLUSION

The study has delved into the intricate interplay of lifestyle factors and their profound impact on the prevalence of non-communicable diseases (NCDs) in Nigeria. Through an exploration of dietary habits, physical activity levels, tobacco use, and alcohol consumption among Nigerians, it becomes evident that these lifestyle choices significantly influence the incidence and progression of chronic diseases such as hypertension, diabetes, cardiovascular diseases, and cancers.

Evidence suggests that urbanization, globalization, and socio-economic transitions have accelerated the adoption of unhealthy lifestyles across the country. This shift towards sedentary lifestyles, coupled with dietary patterns high in salt, sugar, and saturated fats, has contributed to the rising burden of NCDs. Furthermore, tobacco use and harmful alcohol consumption remain prevalent among certain demographics, exacerbating the risk factors associated with these diseases.

Effective interventions must prioritize health education campaigns aimed at raising awareness about the detrimental effects of unhealthy lifestyles. Empowering individuals and communities to make informed choices through behavior change communication, access to nutritious foods, and promoting physical activity can mitigate the risk factors for NCDs.

Lifestyle factors contributing to NCDs in Nigeria requires a multi-sectoral approach involving government agencies, healthcare providers, civil society organizations, and the private sector. By fostering a supportive environment that promotes healthy behaviors and implementing evidence-based policies, Nigeria can mitigate the impact of NCDs and enhance the quality of life for its population..

RECOMMENDATIONS

1. Development of National NCD Policies and Strategies: Formulating comprehensive national policies and strategic plans specifically targeting NCD prevention, management, and control is imperative. These policies should prioritize health promotion, disease prevention, and sustainable financing mechanisms to support long-term healthcare initiatives.

2. Strengthening Legislative Frameworks: Enacting and enforcing legislation to regulate tobacco control, reduce salt and sugar content in processed foods, and promote workplace wellness programs can create supportive environments for NCD prevention. Legislative measures should also address environmental factors contributing to NCDs, such as air pollution and occupational hazards.

3. Investment in Research and Data Collection: Increasing funding for epidemiological research, surveillance systems, and health data collection is essential for monitoring NCD trends, evaluating intervention effectiveness, and guiding evidence-based policymaking. Regular health surveys and population-based studies can provide valuable insights into the burden and distribution of NCDs across Nigeria.

4. Partnership and Collaboration: Fostering partnerships between government agencies, non-governmental organizations (NGOs), academia, private sector stakeholders, and international organizations is crucial for mobilizing resources, sharing best practices, and implementing coordinated interventions. Collaborative efforts can leverage diverse expertise and resources to address the multifaceted challenges of NCDs.

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