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URBANISATION AND PUBLIC SANITATION: A GENERAL STUDIES APPROACH TO PUBLIC HEALTH EDUCATION

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ABSTRACT
Urbanisation has become one of the most significant global trends, reshaping human settlements, social systems, and health outcomes, especially in developing countries such as Nigeria. While cities present opportunities for economic growth and modernization, their rapid expansion has created critical challenges in sanitation, waste management, and public health. Poor sanitation remains a key contributor to communicable diseases such as cholera, typhoid, and diarrhoea, disproportionately affecting vulnerable populations in informal settlements. This study explored the relationship between urbanisation, public sanitation, and the role of general studies in promoting public health education. Anchored on the modernization theory of urbanisation, the study adopted an exploratory research design and relied on qualitative data from scholarly works, policy documents, and institutional reports. The study revealed that sanitation challenges in Nigerian cities are not solely infrastructural but also behavioural and educational. The study emphasizes that integrating public health and sanitation into the general studies curriculum provides a holistic framework for equipping undergraduates with knowledge, values, and civic responsibility to address sanitation-related challenges. It concludes that sustainable urban health requires a multidisciplinary approach that combines education, behavioural change, strong policy enforcement, and community participation.
Keywords: Urbanisation, public sanitation, public health education and general studies.

INTRODUCTION
Urbanisation has become one of the most defining trends of the 21st century, significantly reshaping human settlements, social structures, and public health dynamics. The rapid growth of cities, particularly in developing countries, has created both opportunities and challenges for sustainable development. On one hand, urban centres are hubs of economic activity, cultural exchange, and technological innovation; on the other, they are often confronted with problems such as overcrowding, inadequate housing, poor waste management, and insufficient sanitation facilities (United Nations, 2019). These challenges have direct implications for public health, as poor sanitation is a major contributor to the spread of infectious diseases and environmental degradation. Public sanitation, which encompasses access to clean water, safe disposal of human waste, and effective waste management systems, is a critical determinant of urban health outcomes. The World Health Organization (2022) emphasizes that inadequate sanitation not only increases the prevalence of diarrheal diseases but also exacerbates health inequities, disproportionately affecting vulnerable populations living in informal settlements. Thus, the nexus between urbanisation and sanitation highlights the urgency of integrating public health education into urban development strategies.
A general studies approach to public health education offers a holistic framework for addressing these issues. Unlike specialized professional training, general studies provide students and citizens with broad-based knowledge, critical thinking skills, and civic awareness necessary for understanding and responding to complex societal challenges (Nwosu & Chukwu, 2021). By situating urbanisation and public sanitation within this multidisciplinary context, individuals are better equipped to appreciate the social, environmental, and health dimensions of urban living, thereby fostering responsible citizenship and collective action. Consequently, exploring urbanisation and public sanitation through a General Studies lens is essential for promoting sustainable urban health. It enables learners and policymakers

to recognize the interconnectedness of human behavior, environmental management, and health systems, while also emphasizing preventive health education as a cornerstone of urban well-being. This approach ensures that public health is not treated merely as a clinical concern but as a shared societal responsibility in the face of rapid urban growth.

Statement of the Problem

The rapid pace of urbanisation across many parts of the world, particularly in developing nations like Nigeria, has outpaced the capacity of urban infrastructure and public health systems to cope with the growing population. While cities continue to expand as centres of opportunity and development, they also grapple with overcrowding, poor housing conditions, and inadequate public sanitation facilities. A large proportion of urban residents, especially those living in slums and informal settlements, lack access to clean water, proper waste disposal systems, and safe sanitation services. This situation not only undermines environmental quality but also contributes to the prevalence of preventable diseases such as cholera, typhoid, and diarrhoea, which remain public health concerns in many urban centres. Despite the recognition of sanitation as a critical determinant of public health, efforts to address the challenges associated with urbanisation have often been fragmented, reactive, and insufficiently grounded in public health education. Many urban dwellers are either unaware of the health risks associated with poor sanitation practices or lack the knowledge and skills to adopt safe and sustainable hygiene behaviours. Furthermore, educational systems, particularly at the general studies level, have not fully integrated public health issues such as sanitation into their curriculum in ways that empower students to become proactive agents of change in their communities. This gap between urban growth and public health education creates a pressing problem: as cities expand, the risks associated with poor sanitation multiply, yet the level of awareness and preventive action among urban residents remains low. Without deliberate efforts to link urbanisation, sanitation, and public health education through multidisciplinary approaches like general studies, the cycle of poor sanitation, disease outbreaks, and environmental degradation will persist. This poses not only a challenge to individual and community health but also to sustainable urban development and national productivity.

THEORETICAL REVIEW

Modernization Theory of Urbanisation

Modernization Theory emerged in the mid-20th century as a framework for explaining social and economic development, particularly in developing countries. The theory posits that as societies transition from traditional to modern systems, they undergo structural changes such as industrialization, improved education, technological advancement, and urbanisation (Hoselitz, 1960). Urbanisation, within this framework, is viewed as a natural outcome of economic growth, as people migrate from rural areas to cities in search of better opportunities, higher standards of living, and access to modern amenities. However, the theory also recognizes that the pace of urbanisation in many developing countries often surpasses the capacity of governments and institutions to provide adequate infrastructure and services. This mismatch can result in overcrowding, slum development, insufficient sanitation systems, and strained health services (Todaro & Smith, 2020). While modernization is expected to bring progress, the unintended consequences of rapid urban growth highlight the critical need for planning and education to manage the challenges that accompany it. Thus, the Modernization Theory not only explains the structural drivers of urbanisation but also supports the study's argument that public health education is a vital tool for mitigating sanitation-related risks in rapidly expanding urban centres.

LITERATURE REVIEW

Concept of Urbanisation

Urbanisation refers to the process by which an increasing proportion of a population resides in towns and cities rather than in rural areas. It is a complex socio-economic and spatial transformation that

involves not only population concentration but also changes in lifestyles, economic activities, and social structures. Urbanisation is often driven by industrialisation, technological advancement, and the search for improved livelihoods, as people migrate from rural communities in pursuit of better opportunities, amenities, and services (Todaro & Smith, 2020). From a developmental perspective, urbanisation is seen as a natural outcome of modernization and economic growth. Cities serve as hubs of commerce, governance, education, and innovation, offering prospects for individual advancement and national development. However, when urban growth occurs at a rate faster than infrastructural and institutional capacity, it leads to significant challenges. These include overcrowding, informal settlements, traffic congestion, unemployment, and most importantly, inadequate public sanitation. Such conditions increase the vulnerability of urban residents to communicable diseases and environmental hazards (United Nations, 2019).

Urbanisation in developing countries like Nigeria has been particularly rapid, influenced by factors such as rural-urban migration, natural population growth, and uneven development between rural and urban areas. While cities such as Lagos, Port Harcourt, and Abuja have emerged as centres of economic activity, they are equally burdened by poor housing conditions, strained sanitation facilities, and weak urban planning systems (Adelekan, 2016). The health and environmental implications of this rapid urbanisation underscore the urgent need for sustainable policies and effective public health education to manage its impact. In the context of this study, urbanisation is not only a demographic or spatial phenomenon but also a public health concern. The challenges it poses to sanitation highlight the necessity of equipping individuals, through general studies education, with the knowledge and skills to adopt healthy practices and advocate for better urban health systems. Thus, understanding the concept of urbanisation provides the foundation for examining its intersection with sanitation and public health education.

Concept of Public Sanitation

Public sanitation refers to the organized system of promoting hygiene and ensuring proper management of human waste, wastewater, and solid waste to protect community health and the environment. It encompasses access to safe drinking water, hygienic toilets, effective sewage disposal, solid waste management, and the promotion of personal and community hygiene practices. Sanitation is considered a cornerstone of public health, as it directly influences the prevalence of communicable diseases and the overall quality of life within a society (World Health Organization, 2022). Historically, improvements in sanitation have been closely linked to significant declines in disease outbreaks such as cholera, typhoid, and diarrhoea, particularly in urban settings. The Germ Theory of Disease established in the 19th century demonstrated the role of microorganisms in transmitting diseases through contaminated water and unhygienic conditions, thereby reinforcing the importance of sanitation as a preventive health measure (Rosen, 2015). Today, the United Nations recognizes sanitation as a human right and a key component of sustainable development, enshrined in Sustainable Development Goal (SDG) 6, which emphasizes ensuring availability and sustainable management of water and sanitation for all (United Nations, 2019).

In urban contexts, public sanitation becomes even more critical due to high population density, rapid industrialisation, and the accumulation of waste. Poorly managed sanitation systems can overwhelm urban infrastructure, leading to environmental degradation, flooding, and the spread of waterborne diseases. This situation is particularly acute in many developing countries, including Nigeria, where rapid urbanisation has outpaced the provision of adequate sanitation facilities. Informal settlements often lack proper drainage, sewage systems, and waste management, leaving residents exposed to avoidable health risks (Adelekan, 2016). Within the scope of this study, public sanitation is not just a matter of infrastructure but also of education and behaviour. While governments and institutions have the responsibility of providing sanitation facilities, individuals and communities play an equally important role in maintaining hygienic practices and adopting responsible waste management behaviours. Integrating sanitation education into the General Studies curriculum equips learners with

the awareness and civic responsibility needed to uphold sanitation standards, thereby contributing to healthier urban environments.

Urbanisation and Public Health

Urbanisation and public health are closely interconnected, as the rapid growth of cities directly affects the living conditions, health behaviours, and disease patterns of urban populations. Urbanisation brings economic growth, technological advancement, and improved access to health facilities for many people. However, when poorly managed, it also creates new health challenges and exacerbates existing ones. Overcrowding, poor housing, inadequate sanitation, and insufficient waste disposal systems are common features of rapidly growing cities, particularly in developing countries, and these conditions increase vulnerability to communicable diseases such as cholera, malaria, typhoid, and diarrhoeal infections (Adelekan, 2016).

The relationship between urbanisation and health is not limited to infectious diseases. Urban environments also contribute to the rise of non-communicable diseases (NCDs) due to sedentary lifestyles, unhealthy diets, pollution, and stress associated with city living. For instance, air pollution from traffic and industrial activity is linked to respiratory illnesses and cardiovascular diseases, while poor waste management practices contribute to environmental contamination and vector-borne diseases (World Health Organization, 2022). Thus, urbanisation can be described as a "double-edged sword," offering opportunities for improved health care access and innovation while simultaneously exposing populations to new health risks. In Nigeria and many other developing nations, the pace of urbanisation has outstripped the capacity of public health infrastructure. Cities such as Lagos, Port Harcourt, and Kano face significant sanitation challenges, ranging from indiscriminate waste disposal to inadequate sewage systems. Informal settlements, which house large portions of urban populations, often lack basic sanitation and clean water, leaving residents highly exposed to preventable diseases (Adelekan, 2016). This situation highlights the urgent need for preventive health strategies that combine infrastructural development with public health education.

Public Health Education

Public health education refers to the systematic process of providing individuals and communities with knowledge, skills, and attitudes necessary to make informed decisions that promote health, prevent disease, and improve overall well-being. It emphasizes prevention rather than cure, aiming to empower people to adopt healthy lifestyles, practice good hygiene, and actively participate in creating healthier environments (Glanz et al., 2015). Unlike clinical medicine, which focuses on treating individuals, public health education addresses the health needs of populations, making it a vital component of sustainable development. At its core, public health education covers a wide range of issues, including sanitation, nutrition, reproductive health, environmental health, and disease prevention. The approach is multidisciplinary, drawing from health sciences, social sciences, and education to design interventions that shape health behaviours and attitudes. By raising awareness about risk factors and teaching preventive practices, public health education reduces the burden of communicable and non-communicable diseases, particularly in urban settings where health risks are intensified by overcrowding, poor sanitation, and environmental pollution (Nutbeam & Muscat, 2021).

In many developing countries, including Nigeria, inadequate awareness and misconceptions about sanitation and hygiene remain significant barriers to improving health outcomes. Public health education plays a critical role in bridging this gap by equipping individuals with evidence-based information and fostering behavioural change. For example, campaigns on handwashing, waste disposal, and water purification have proven effective in reducing diarrhoeal diseases and other sanitation-related illnesses (World Health Organization, 2022). Within the framework of this study, public health education is viewed as a key strategy for addressing the sanitation challenges associated with rapid urbanisation. By integrating public health themes into the General Studies curriculum, educational institutions can nurture a generation of citizens who are not only aware of the health risks

of poor sanitation but are also motivated to adopt sustainable hygiene practices and advocate for better urban health policies. This broad-based educational approach ensures that public health is understood not merely as the responsibility of medical professionals but as a shared societal obligation.

Behavioural and Social Dimensions of Sanitation

Sanitation is not only a technical or infrastructural issue but also a behavioural and social one. The success of sanitation interventions depends largely on how individuals and communities perceive cleanliness, adopt hygienic practices, and sustain them over time. Understanding the behavioural and social dimensions of sanitation is therefore critical to addressing urban health challenges, particularly in rapidly growing cities where population density intensifies health risks.

Community attitudes and cultural perceptions of cleanliness: This play a central role in shaping sanitation outcomes. In many societies, cultural norms and traditional beliefs influence how waste is managed, how cleanliness is defined, and the level of priority given to sanitation. For example, in some communities, open defecation persists because it is culturally tolerated or considered a normal practice. Conversely, in societies where cleanliness is deeply valued as a cultural or religious principle, households are more likely to invest in sanitation facilities and maintain hygienic environments (Coffey & Spears, 2017). These variations underscore the importance of tailoring sanitation education and interventions to the cultural contexts of communities.

Behavioural change and the adoption of hygiene practices: Promoting sanitation also requires behavioural change which is often more challenging than providing infrastructure because it requires individuals to alter long-standing habits and routines. Interventions such as handwashing campaigns, toilet-use promotion, and waste segregation initiatives demonstrate that when people understand the health risks of poor sanitation and the benefits of hygienic practices, they are more likely to adopt sustainable behaviours. The Health Belief Model and Social Learning Theory provide useful insights into this process, emphasizing that individuals change behaviour when they perceive personal risk, see clear benefits, and observe positive examples from others (Rosenstock et al., 2018; Bandura, 2004).

Role of social norms, peer influence, and civic responsibility in sanitation: Social norms dictate acceptable behaviour within a community, and individuals often conform to these norms to gain social approval or avoid stigma. When good sanitation practices such as using toilets, washing hands, or participating in community clean-up exercises are widely accepted and reinforced, they become self-sustaining social norms. Peer influence further strengthens this process, as individuals are more likely to emulate behaviours demonstrated by respected members of their community. Moreover, civic responsibility—expressed through collective action and participation in community sanitation programmes—ensures that sanitation is upheld as a shared responsibility rather than left to government authorities alone (Jenkins & Curtis, 2005).

Behavioural and social dimensions highlight the need for public health education within the general studies curriculum. By fostering awareness of cultural attitudes, promoting positive behavioural change, and strengthening civic responsibility, higher education institutions can help create a generation of citizens committed to sustainable sanitation practices in urban areas.

General Studies as a Framework for Health Education

The purpose and philosophy of general studies in higher education is rooted in the idea of producing well-rounded graduates who are not only skilled in their chosen professions but also knowledgeable about societal issues, civic responsibilities, and human values. General studies seeks to broaden students' intellectual horizons by exposing them to courses outside their major disciplines, such as ethics, communication, history, environmental studies, and health education. This broad-based educational philosophy reflects the conviction that universities should develop graduates who can

think critically, act responsibly, and contribute meaningfully to societal development (Okebukola, 2012). In the Nigerian context, general studies has been institutionalized by the National Universities Commission (NUC) to promote national unity, civic responsibility, and awareness of pressing developmental challenges (Obioma & Onyike, 2018).

As a multidisciplinary approach to solving societal problems, general studies integrates knowledge from diverse fields to address issues that cut across disciplines, such as poverty, governance, environmental sustainability, and public health. By fostering interdisciplinary learning, students are encouraged to see connections between their academic pursuits and real-life challenges in society. For example, courses on environmental studies provide insights into climate change and pollution, while those on philosophy and ethics emphasize civic duty and responsible citizenship. This multidisciplinary nature positions General Studies as a unique platform for tackling complex challenges like urbanisation and sanitation, which require not just technical expertise but also social awareness, behavioural change, and civic engagement (Adebayo & Lawal, 2017).

The integration of public health and sanitation issues into the general studies curriculum is particularly significant given the public health challenges facing rapidly urbanising societies. By embedding topics such as sanitation, hygiene, disease prevention, and environmental health into general studies courses, institutions can equip students with the knowledge and values needed to promote healthier urban environments. This integration ensures that every graduate, regardless of discipline acquires basic health literacy and an appreciation of the role of sanitation in sustainable development. Beyond awareness, such courses can cultivate civic responsibility, motivating students to participate actively in community sanitation initiatives, health campaigns, and advocacy for improved urban infrastructure (Nwosu & Chukwu, 2021).

General studies is therefore conceived not just as an academic requirement, but as a powerful framework for cultivating responsible citizenship and fostering behavioural change. By emphasizing sanitation and public health education within this curriculum, higher education can contribute directly to addressing the health and environmental challenges posed by urbanisation.

Government Policies and Urban Sanitation Management

Urban sanitation is a critical public health concern that requires coordinated government policies, legal frameworks, and effective enforcement mechanisms. While infrastructure and community participation are essential, the enabling environment provided by national and local government strategies largely determines the success and sustainability of sanitation initiatives.

National and local government strategies on urban sanitation have sought to address the growing challenges of waste management, drainage, and access to clean water in Nigeria. The Federal Government, through agencies such as the Federal Ministry of Water Resources, has introduced policies like the National Water Supply and Sanitation Policy (2000), which emphasizes universal access to safe sanitation facilities. At the state and municipal levels, sanitation is often integrated into urban planning through waste management authorities and public health departments. However, despite these efforts, rapid urbanization has strained local governments' capacity to implement policies effectively, leading to challenges such as poor waste collection, open dumping, and inadequate public toilets (Nnaji et al., 2019).

At the international level, frameworks such as the Sustainable Development Goals (SDGs) and World Health Organization (WHO) guidelines provide direction for improving sanitation. Goal 6 of the SDGs specifically calls for universal access to clean water and sanitation by 2030, stressing the importance of equity, inclusivity, and sustainability. The WHO also provides technical standards and best practices for sanitation services, ranging from safe water management to urban wastewater treatment. These global frameworks influence national policies by setting benchmarks and mobilizing international funding and technical support (United Nations, 2019; WHO, 2022). Despite these policy efforts, gaps and enforcement challenges in Nigeria remain significant. Weak institutional capacity, inadequate funding, and corruption have hindered the implementation of sanitation laws and strategies. For

instance, while policies exist on open defecation, illegal dumping, and wastewater management, enforcement mechanisms are often weak, with little accountability for violators. Furthermore, political instability and overlapping responsibilities between federal, state, and local governments create bureaucratic bottlenecks that slow down policy execution (Okpala, 2020). This situation highlights the need for stronger governance structures, community engagement, and public-private partnerships to improve sanitation outcomes in urban areas. For the purposes of this study, government policies are crucial because they provide the framework within which urban sanitation and public health education can be integrated into higher education curricula. By aligning general studies with national and international sanitation objectives, universities can contribute to bridging the gap between policy formulation and behavioural change at the community level.

METHODOLOGY

This study adopted an exploratory research design, which is suitable for investigating broad social and educational issues while generating deeper insights into their underlying dimensions. The exploratory design was considered appropriate because the study focused on understanding the relationship between urbanisation, public sanitation, and the role of general studies in promoting public health education. The study relied primarily on qualitative data obtained through an extensive review of relevant literature.

CONCLUSION

Urbanisation remains one of the most significant drivers of social and environmental transformation in the 21st century, particularly in developing countries such as Nigeria. While it creates opportunities for economic growth and modernization, its rapid pace has generated complex challenges in the areas of sanitation, waste management, and public health. The review of literature revealed that inadequate sanitation in urban centres continues to contribute to the spread of communicable diseases, environmental degradation, and poor quality of life, especially for vulnerable populations in informal settlements. The study further emphasized that addressing urban sanitation requires more than infrastructural development, it demands behavioural change, civic responsibility, and strong policy enforcement. Public health education, when embedded into the general studies curriculum, provides a holistic approach to cultivating awareness, shaping positive sanitation behaviours, and fostering responsible citizenship among undergraduates. By linking the philosophy of general studies with pressing health concerns, higher education institutions can play a pivotal role in promoting sustainable urban living. Thus, the study concludes that urbanisation and sanitation are not merely technical or infrastructural concerns but deeply social and educational issues. A multidisciplinary approach that integrates government policies, behavioural change strategies, and general studies education is necessary to ensure healthier cities and sustainable development in Nigeria.

RECOMMENDATIONS

1. Universities and higher education institutions should embed public health education, especially sanitation and hygiene topics into General Studies programmes to equip students with knowledge, values, and civic responsibility for sustainable urban living.
2. Federal, state, and local governments should enhance institutional capacity, funding, and accountability mechanisms to ensure effective enforcement of existing sanitation policies. Collaboration with private sector actors and NGOs can also improve service delivery.
3. Beyond formal education, community-wide health promotion initiatives should be intensified, using culturally appropriate strategies to change perceptions of cleanliness, reduce open defecation, and promote hygienic practices in urban communities.
4. Governments should encourage partnerships with private organizations, civil society, and international development agencies to expand sanitation infrastructure, improve waste management systems, and promote innovative technologies for urban sanitation.

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