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Assessment of Knowledge and Perception of the Health Risk Posed by Living near Dumpsite among the Lagos State College of Nursing Students

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Chapter One
Introduction
1.1 Background to The Study

Worldwide, urban expansion correlates with increased waste generation from various residential and commercial activities. The accumulation of waste in urban areas poses significant challenges for local communities. According to Singh et al. (2021), cities globally produce approximately 1.3 billion tons of solid waste annually, a figure projected to rise as urbanization and industrial activities expand in the future. The most noticeable effects of living near a dumpsite are often seen in reduced aesthetic appeal, unpleasant odors, and the general stigma of proximity to such areas. However, there is a strong connection between living near dumpsites and negative health outcomes in surrounding communities. Therefore, it can be concluded that residing near a dumpsite poses significant environmental health risks. According to Reinhart & Townsend (2018), non-communicable diseases like cancer, asthma, and birth defects in infants, as well as waterborne diseases such as typhoid and cholera, are linked to living close to dumpsites. Additionally, other health problems such as skin infections and eye irritation are associated with the breeding and spread of insects and rodents, which act as vectors for these diseases (Singh et al., 2021). The detrimental effects of environmental pollution on health outcomes are particularly evident in low-income countries, where pollution is linked to up to 90% of recorded deaths (Siddiqua et al., 2022).Landfilling remains one of the most widely used waste management techniques globally, regardless of a country's level of development. Common types of landfills include municipal solid waste, industrial waste, hazardous waste, and green waste landfills (Siddiqua et al., 2022). In developing nations, particularly in Africa, illegal and unregulated landfills are prevalent and can often be found in various communities. Landfills are often located in areas that were initially considered uninhabitable before communities were established nearby. It has been shown that landfilling contributes to several environmental pollution issues, including groundwater contamination from the leaching of organic, inorganic, and other substances of concern (SoC) present in the waste. Additionally, it leads to air pollution from suspended particles, odor pollution from the disposal of municipal solid waste (MSW), and marine pollution caused by runoff (Siddiqua et al., 2022). Improper landfill management results in significant toxic metal pollution, which is considered one of the most dangerous forms of contamination, affecting water, soil, and crops. Additionally, open burning

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contributes to the release of atmospheric pollutants such as carbon dioxide and carbon monoxide (Siddiqua et al., 2022). A well-managed landfill, however, ensures that pollutants remain contained in one area, preventing their spread through soil, groundwater, or air. It also minimizes the risk of insect infestations or animal contamination and should be located away from residential areas. Limoli et al. (2019) reported adverse health effects on individuals living near illegal landfills, which pose even greater risks to children due to their weaker immune systems and outdoor activities like playing or engaging in recreational activities. Liquid pollutants such as chlorides, organic matter, persistent organic pollutants (POP), sulfates, and ammonium nitrogen can degrade water quality, lead to bioaccumulation, and cause eutrophication. These pollutants may also increase the production of methylmercury by certain bacteria, which is highly toxic (Siddiqua et al., 2022). Gaseous pollutants, such as nitric oxide, contribute to the formation of photochemical smog and acid rain, while volatile organic compounds (VOCs) lead to the creation of harmful ground-level ozone (Siddiqua et al., 2022). Environmental health concerns extend beyond radiological hazards, water and wastewater treatment, air pollution control, solid waste disposal, and occupational health—they also pose significant risks to future generations (Kret et al., 2018).

In Lagos State, Nigeria, dumpsites have long been the primary method for managing solid waste. However, the Lagos State Waste Management Authority (LAWMA), responsible for overseeing waste disposal across the state, faces challenges such as insufficient funding, maladministration, inefficiency, and poor implementation of government policies (Olu & Iyere, 2020).

A healthy environment however should not be the sole responsibility of LAWMA as the communities need to participate fully in the drawing and implementation of policies that will ensure achievement of the goal. Landfills also invariably attract scavengers who are also exposed to the health risk posed by the dumpsites as well as the communities living close to them.

1.2 Statement of Problem

The environment plays a major role in the health of individuals and families. A safe and clean environment favours a healthier populace while a dirty and unhygienic environment favours various forms of illnesses and diseases. People living and working near landfills face significant environmental health risks (Singh et al., 2020) due to the release of pollutants into the air, land, and water, which they may come into contact with directly or indirectly. It is often the urban poor who are most vulnerable to these life-threatening conditions, which arise from inadequate solid waste management (Schenck et al., 2019). The primary purpose of establishing dumpsites or landfills is to safely dispose of waste and prevent harm to humans and the environment. However, as cities expand and encroach on these sites, the waste becomes a health hazard to nearby residents, posing numerous health risks. Etea et al. (2021) found that all participants in their study acknowledged the environmental and health dangers associated with living near an open solid waste dumpsite. Remains a significant threat to surrounding communities, including Alimosho General Hospital, which is less than 50 meters from the site. Njoku et al. (2019) reported that people living close to dumpsites experience health issues such as eye irritation, flu, body weakness, severe air quality contamination, and concerns about their future health. Similarly, Siddiqua et al. (2022) concluded that health impacts from living near dumpsites can arise through groundwater pollution and gas emissions, leading to both carcinogenic and non-

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carcinogenic effects on the exposed population.

However, there are no studies that assess knowledge and perception of the health risk posed by living near the dumpsite among the Lagos State College of Nursing Students Igando.

1.3 Objectives of The Study

The broad objective of this study is to assess the knowledge and perception of the health risk posed by living near the dumpsite among the Lagos State College of Nursing Students Igando, Lagos State. However, the specific objectives of this study are to:

- assess the knowledge level regarding the health risk posed by living near the dumpsite among the students,
- assess the perception regarding the health risk posed by living near the dumpsite among the students,
- identify some common illnesses that are being experienced by the students due to living near the dumpsite,
- identify some factors that may influence the perception of the health risk posed by living near the dumpsite among the students.

1.4 Research Questions

i. What is the level of knowledge regarding the health risk posed by living near the dumpsite among the students?
ii. What is the level of perception regarding the health risk posed by living near the dumpsite among the students?
iii. What are the health risk posed by living near dumpsite among the students?
iv. What factors may influence the perception of the health risk posed by living near the dumpsite among the students?

1.5 Hypotheses

Hypothesis 1:

There is no significant relationship between the knowledge and perception level of the students, towards the health risk posed by living close to the dumpsite.

Hypothesis 2:

There is no significant relationship between length of stay in school hostel and health conditions experienced/known.

1.6 Significance of The Study

The findings of this study will have an impact on the following:

Nursing Profession: This study will help to reveal the health risk posed by living near the dumpsite among the students who are undoubtedly part of the nursing profession. Hence, assessing and identifying the health risk posed by the students of this institution which will have a huge impact on the the nursing profession at large.

Health Providers: The study will bring to the limelight some health risks that may have long term consequences on the health and invariably on the performance of these student nurses who in a short time would be full time staff nurses and part of the health care team. Hence, preventive measures and probably swift responses in event of illnesses to prevent further complication that would reduce the quality of life of the nurses may be implemented.

The Society: This study will assist in exposing the health risks posed by living close to the dumpsite and serve as a referral for further work on dumpsites close to residential communities in Lagos State and the Nation at large.

1.7 Scope Of Study

This study assesses the knowledge and perception of students in Lagos State College of Nursing, Igando on the health risk posed by living close to the dumpsite. Year 1, 2 and 3 students of both departments of Nursing and Midwifery were used as

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respondents using self administered questionnaires.

1.8 Operational Definition of Terms

Assessment: This involves collecting and analysing information from various sources to evaluate factors, risks, knowledge, and levels of perception.

Dumpsite: Also referred to as a landfill, this term denotes a designated area where waste materials are disposed of. In this study, "dumpsite" and "landfill" can be used interchangeably.

Health risk: This term indicates the probability of harm to an individual's health as a result of exposure to the dumpsite.

Knowledge: This refers to the understanding acquired through experience or education, which often influences actions aimed at mitigating health risks.

Living near: This refers to the Lagos State College of Nursing hostel which is less than 50 meters from the dumpsites.

Perception: Refers to the belief or opinion of the students on how the dumpsite is viewed.

Pose: Refers to the creation of the problem constituted by the dumpsite.

CHAPTER TWO

Literature Review

2.0 Introduction

This chapter explores the comprehensive literature review that focuses to reveal the following: Conceptual review, Empirical review and Theoretical framework.

2.1 Conceptual Review

Open dumpsites present numerous risks by contributing to various forms of pollution that negatively impact the overall health of the surrounding community. These risks range from air pollution caused by burning waste at the sites, to underground water and soil contamination due to leachate pollutants. Additionally, radioactive waste exposure can lead to radioactive pollution, while the large piles of waste create visual pollution. Stagnant water formed around these dumpsites also becomes a breeding ground for insects, which act as vectors for disease (Etea et al., 2021).

Overview of the Health Risk Posed by Living Close to Dumpsite

Living near a dumpsite exposes individuals and families to environmental pollution. Environmental pollution involves the introduction of harmful materials or waste products into the environment, negatively impacting the health of those living nearby. This issue is a growing challenge associated with industrialization and urbanization worldwide. While not a new phenomenon, environmental pollution tends to increase as communities grow, generating more waste and advancing technologically, which directly or indirectly contributes to the expansion of this problem.Environmental pollution, as outlined by Ukaogo et al. (2020), is one of the leading causes of morbidity and mortality worldwide, affecting both developing and developed nations. However, developed countries tend to have better environmental protection due to stricter laws and greater public awareness. Pollutants, which are substances introduced into the environment, can be either natural or man-made. These pollutants may exist in solid, liquid, or gaseous forms, and they negatively impact the quality of the environment (Manisalidis et al., 2020).

Knowledge of the Health Risk Posed by Living Close to Dumpsite

Most people residing near dumpsites are aware of the various types of pollution they are exposed to, and some believe that the severity of pollution varies depending on the season or time of year (Etea et al., 2021). The different forms of pollution that pose health risks to those living nearby can be

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classified into two categories: natural and man-made environmental pollution.

i. **Natural Environmental Pollution** refers to pollution caused by natural events that result in pollutants being present in the environment at levels harmful to health, without being influenced by human activities. These events are often unexpected and can lead to emergencies due to their sudden impact. Examples include volcanic eruptions, which cause noise, soil, water, air, and thermal pollution; hurricanes, which spread debris and raise pollutant levels beyond safe limits; and wildfires, which produce air and thermal pollution while introducing harmful inorganic materials into the soil, leading to water and soil contamination. Other examples include dust storms, decay of radioactive elements, and meteorite showers.

ii. **Man-made Environmental Pollution** refers to pollution caused directly or indirectly by human activities. This type of pollution produces anthropogenic pollutants, which can pose immediate and long-term threats to environmental health. Most man-made pollution arises from human consumption, transportation, mining, scientific explorations, waste disposal, energy generation, and industrial waste production. These pollutants can be either organic or inorganic in nature.

Perception of the Health Risk Posed by Living Close to Dumpsite

The perception of the risks associated with living near a dumpsite, as noted by Etea et al. (2021), is shaped by individual experiences and emotional reactions related to the proximity to the dumpsite. It is well-established that living close to dumpsites, particularly open ones, leads to various health issues, including respiratory, gastrointestinal, and skin-related diseases. This proximity exposes individuals to various forms of environmental pollution, which in turn generates different pollutants, such as:

i. **Organic pollutants** are toxic carbon-based compounds that can cause various diseases in humans when they exceed safe limits. These pollutants are produced from products like detergents, petroleum hydrocarbons, plastics, organic solvents, pesticides, and dyes (Geetha & Nagarajan, 2021). They are commonly released into the environment through activities like oil burning, mining, and modern industrial emissions/effluents. Persistent organic pollutants (POPs), a subset of these, are particularly harmful due to their ability to bioaccumulate, with long-term effects that may surface years later. POPs are resistant to degradation and can be easily transported across borders through air or water, posing a threat to living organisms far from their origin. The harmful effects of persistent organic pollutants (POPs) were addressed in the Stockholm Convention, held on May 22, 2001. POPs can be present in pesticides, insecticides, and some industrial or pharmaceutical solvents. Another type of organic pollutant is polycyclic aromatic hydrocarbons (PAHs), which are produced during the incomplete combustion of natural petroleum or petroleum-related products.

ii. **Inorganic pollutants** are contaminants of mineral origin that typically lack carbon molecules in their structure. According to Geetha & Nagarajan (2021), around 3% of synthetic chemicals used daily are considered problematic, including heavy metals like mercury (Hg) and lead (Pb). Common examples of inorganic pollutants include lead (Pb), cadmium (Cd), chromium (Cr), copper (Cu), nickel (Ni), zinc (Zn), arsenic (As), carbon monoxide (CO), sulfur oxides (SO), and

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nitrogen oxides (NO). Exposure to levels of these pollutants beyond normal limits poses significant public health risks (Manisalidis et al., 2020).

Common Illnesses and Factors Influencing the Perception of the Health Risk Posed by Living Close to the Dumpsite

In 2012, air pollution was responsible for the deaths of more than one million people in China, over 600,000 in India, more than 140,000 in Russia, and around 46,000 in Nigeria, as exposure to certain inorganic pollutants can lead to respiratory diseases and even fatalities (Fuwape et al., 2021). Residents living near dumpsites have reported various types of pollution, including air pollution, water pollution, noise pollution, land and soil pollution, thermal pollution, radioactive and nuclear pollution, light pollution, and visual pollution.

Air pollution refers to the release of harmful substances into the air in amounts that negatively affect the health of living organisms and diminish the quality of life in the surrounding environment. The World Health Organization (WHO), dedicated to promoting and maintaining global health, highlights outdoor air pollution as one of the most significant public health threats. In 2019, it was responsible for approximately 4.2 million premature deaths worldwide (WHO, 2022), with 89% of these fatalities occurring in low- and middle-income countries. Air pollution can have both immediate and long-term consequences. Short-term exposure to air pollutants is strongly associated with conditions such as Chronic Obstructive Pulmonary Disease (COPD), coughing, shortness of breath, wheezing, asthma, respiratory diseases, and increased hospitalization rates, which serve as indicators of morbidity. In contrast, long-term exposure is linked to chronic asthma, pulmonary insufficiencies, cardiovascular diseases, and increased mortality (Manisalidis et al., 2020). Given the significant public health impact of air pollution, many countries have implemented various interventions to mitigate its effects, achieving considerable success (Manisalidis et al., 2020).Natural sources of air pollution include volcanic eruptions, forest fires, and dust storms, while anthropogenic sources encompass vehicle exhaust, industrial emissions, uncontrolled burning of waste, refineries, railways, and air travel. Air pollution also contributes to soil and water pollution, as contaminated precipitation can lead to polluted rainfall that affects water bodies and soil. According to the WHO, there are six major air pollutants: particulate matter, carbon monoxide, sulfur oxides, nitrogen oxides, lead, and ground-level ozone.

Water pollution refers to the influx of pollutants into water bodies at levels that exceed what is healthy for living organisms. This type of pollution can arise from both natural and human-induced sources. Factors such as industrialization, agricultural practices, and urbanization have contributed to the degradation and contamination of the environment, negatively impacting essential water bodies like rivers and oceans. This, in turn, poses significant risks to human health and sustainable social development (Xu et al., 2022).Water pollution can originate from various sources, including agricultural practices, industrial facilities, sewage disposal, pharmaceutical companies, metallurgical industries, and food processing plants. Arsenic and cadmium are particularly significant pollutants that are often released into wastewater, with the industrial sector being a major contributor to these harmful substances (Chen et al., 2019). These pollutants can spread to the water supplies of neighboring countries that were not directly involved in their release, leading to a range

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of health problems, such as gastrointestinal disorders, including diarrhea.

As noted by Aralu et al., (2022), groundwater in communities near dumpsites has been contaminated due to the uncontrolled discharge of leachates from these sites, which have been found to contain elevated levels of nitrates and chlorine, ammonium and other harmful particulate matter are also present in leachates. The ongoing disposal of waste generates leachate at dumpsites, which poses a significant risk to groundwater due to leaching (Aralu et al., 2022). Additionally, water pollution contributes to eutrophication, a process where the concentration of phosphorus, nitrogen, and other plant nutrients increases in a water body. This negatively impacts the growth of basic plant life and creates a breeding ground for certain insects, such as mosquitoes, which are known vectors for malaria.

Noise pollution refers to the presence of excessive noise that negatively impacts humans and animals, resulting in both physiological and psychological effects on the living beings in these communities. Common sources of noise pollution include loud music from concerts, sounds from religious buildings like churches and mosques, and noise generated by generators (Ibhadode et al., 2018). Other contributors to noise pollution are large outdoor parties, political campaign events, construction sites, road traffic, and manufacturing industries. The health impacts of noise pollution are significant, prompting organizations such as the WHO and the Federal Environment Protection Agency (FEPA) in Nigeria to establish standards and permissible noise levels (Ibhadode et al., 2018). Exposure to noise pollution can result in hearing loss or impairment.Noise pollution from landfills is often due to the large number of disposing vehicles, their workers, scavengers as well as traffic situations that mayarise due to the workers of waste disposal in such communities.

Land and soil pollution occurs when waste and chemicals are released into the soil and land. According to Bolaji & Alatise (2021), land pollution refers to any alteration in the physical or chemical composition of land that makes it unsuitable for beneficial use. As one of the key factors of production in economics, alongside labor and capital, land is essential for human survival. It serves various purposes, including the construction of residential homes, the establishment of industries, and agricultural activities. Much of the pollution we encounter stems from land pollution. In Nigeria, land pollution is on the rise due to increased industrial activities, leading to significant environmental degradation and associated health risks for humans (Bolaji & Alatise, 2021). Research by Ileanwa et al., (2020) found that waste accumulation on land creates breeding grounds for disease-carrying bacteria, pests, and vermin, resulting in diseases such as malaria, yellow fever, and Lassa fever.

Thermal pollution refers to the deterioration of water quality due to any process that alters the natural temperature of the water (Speight, 2020). It can also impact air quality, as excess heat released as steam may influence cloud formation and alter local weather patterns (Davidsdottir, 2018). This kind of pollution disrupts the temperature balance in habitats, posing a threat to the survival of living organisms in the environment.

Radioactive and nuclear pollution refers to the discharge of radioactive and nuclear contaminants into the soil, water, or air. This can occur either intentionally or unintentionally when radioactive substances or their byproducts are released, such as

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during the exploration of energy sources like uranium, the use of nuclear weapons, or radioactive waste disposal. Communities near dumpsites have been found to contain traces of radionuclides and radioactive materials in some local fruits, indicating that these refuse sites are vulnerable to contamination from radioactive substances (Ogungbemi et al., 2023). This type of pollution poses significant long-term health risks and can lead to serious health complications.

Light pollution refers to the excessive and unnecessary use of artificial lighting from outdoor sources, which negatively impacts the environment, lifestyle, wildlife, and astronomy (Kaushik et al., 2022). While artificial light has enhanced human life by improving security, increasing nighttime construction efficiency, and enhancing aesthetics and military operations, it has harmful effects on insects, plants, and aquatic animals that are economically important in these communities. Many communities near dumpsites experience light pollution due to the presence of disposal trucks and scavengers that use artificial lighting during nighttime operations.

Visual pollution refers to the presence of elements that distort the visual landscape and detract from the aesthetic appeal of an area. Such pollutants can have both physical and psychological impacts on the health of individuals living in affected communities. Examples of visual pollutants include power lines, billboards, dumpsites, and construction sites. The overabundance of unattractive objects in urban settings can lead to visual blights and eyesores for residents (Tasnim et al., 2023). Additionally, visual pollution resulting from proximity to dumpsites can lead to a decrease in property values, which is closely tied to the overall quality of life in those areas.

2.2 Theoretical Review

Health Belief Model (HBM)

The Health Belief Model (HBM) is a psychological health behaviour change model that attempts to predict the health-related behaviour of an individual in respect to belief patterns and it states that people's beliefs influence their health-related actions or behaviours (Washburn, 2020). Research by social psychologists in the United States Public Health Service Rosentock et al. as sited by Barakat & Kasemy (2020), proposed the HBM in the 1950s. A person's motivation to demonstrate a health behaviour is divided into three (3) categories: Individual beliefs, Modifying factors and Action (Mckellar & Sillence, 2020).

Individual Beliefs

Individual perceptions are certain criterions that affect the perception of an illness as felt by the individual. These include:

Perceived Susceptibility refers to an individual's belief regarding the chances of acquiring a specific health condition (Washburn, 2020). According to the Health Belief Model (HBM), individuals who recognize their susceptibility to a particular health issue are more likely to take preventive measures or interventions to lower or completely avoid the risk of developing the condition. The model suggests that those who perceive themselves at risk are more inclined to engage in behaviors aimed at reducing the likelihood of encountering the health issue.

Perceived Severity refers to an individual's belief about the seriousness of a disease. When both perceived susceptibility and perceived severity of a disease are increased, the likelihood of the individual taking action to address the health risk is greater (Washburn, 2020).

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Perceived Benefits refer to an individual's belief in the effectiveness of a behavior change in reducing the risk of a disease (Washburn, 2020). For someone to adopt a new behavior, they must believe that the change will lead to positive health outcomes.

Perceived Barriers are factors that influence whether or not a behavior change occurs. They represent an individual's view of the obstacles preventing a change in behavior (Washburn, 2020). These barriers can be tangible, such as a lack of money or transportation, or intangible, like fear, pain, or embarrassment. It is important to note that if perceived barriers outweigh perceived benefits, behavior change is unlikely to happen (Washburn, 2020).

Perceived Self-efficacy refers to an individual's confidence and belief in their ability to take action, engage in an intervention, or perform a specific behavior. People are unlikely to attempt adopting new behaviors unless they believe they are capable of doing so, and factors like encouragement, training, and support can help boost their self-efficacy (Washburn, 2020).

Modifying Factors

Modifying factors include the demographic variables e.g Age, Gender, Ethnicity, Personality, Socio-economic factors, Knowledge, Work experience, etc.

Action

Cue to Action: these are the events, people or things that help trigger or propel people to change behaviour (Washburn, 2020). These cues sometimes may be internal like discomfort, fatigue or even pain.

The Health Belief Model (HBM) suggests that when a person recognizes a threat to their health, is prompted to take action, and believes the perceived benefits outweigh the perceived barriers, they are more likely to adopt the recommended preventive intervention (Mckellar & Sillence, 2020).

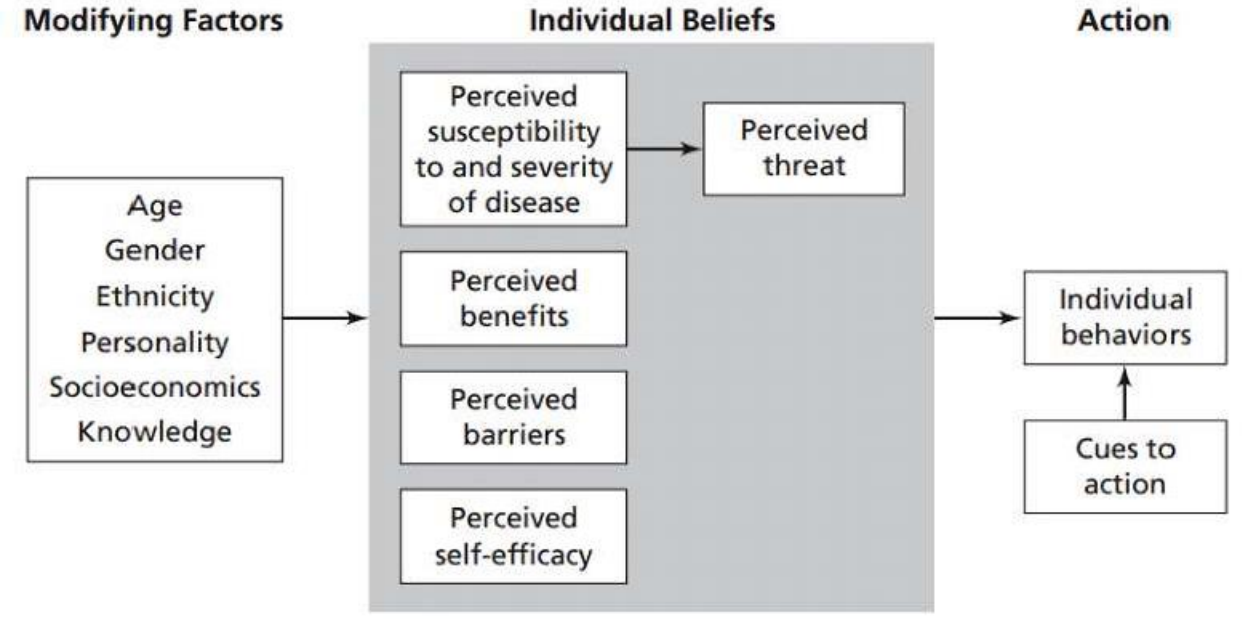

Figure 1: Diagrammatic representation of the Health Belief Model (Mose et al., 2022).

Application of The Theory to The Study

The Health Belief Model (HBM) serves as a framework for understanding individuals' beliefs and perceptions regarding health-related behaviors and associated risks. It

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provides valuable insight into how Lagos State College of Nursing students in Igando perceive potential health hazards in their environment and how these perceptions may influence their behaviors.The components of the HBM in relation to the knowledge and perception of the health risk of the Lagos State College of Nursing Students Igando living close to the dumpsite can be applied in the following:

Modifying factors

These factors encompass demographic variables such as age, gender, ethnicity, personality, socio-economic status, knowledge, and work experience, which vary from one person to another and contribute to the differences in knowledge, perceptions, and life experiences among individuals.

Individual Beliefs

Perceived Susceptibility: The students may evaluate their vulnerability by considering factors such as their exposure to different pollutants and the potential health outcomes, including respiratory issues, gastrointestinal problems, or eye irritations.

Perceived Severity: The students may assess the seriousness of the potential health impacts by reflecting on the prevalence of illnesses within the community, their personal experiences, or scientific evidence linked to living near dumpsites.

Perceived Benefits: The students may evaluate the advantages of adopting certain behaviors, such as advocating for the relocation of the dumpsite, using mosquito nets, drinking sachet water, practicing regular handwashing, and maintaining a healthy lifestyle.

Perceived Barriers: The challenges preventing students from adopting recommended health behaviors could include financial limitations, lack of institutional support, or difficulty in adjusting their daily routines.

Perceived Self-efficacy: The students can evaluate their capability to effectively carry out necessary health behaviors by considering their ability to advocate for policy changes and their capacity to sustain health-promoting practices despite the environmental challenges posed by living near the dumpsite.

Cue to Action:The stimuli that motivate students to adopt healthy behaviors may include their nursing classroom teachings, personal experiences, patient encounters observed in the ward, or information available online. These aspects of the Health Belief Model (HBM) provide valuable insights into how students at Lagos State College of Nursing, Igando perceive the health risks linked to living near a dumpsite and how these beliefs shape their knowledge and behaviors. The HBM indicates that addressing this concern necessitates efforts to raise awareness about the potential health hazards associated with the dumpsite, enhance understanding of the severity of these risks, and emphasize the benefits of adopting healthy behaviors (Washburn, 2020).

Modifying Factors Individual Perception Action

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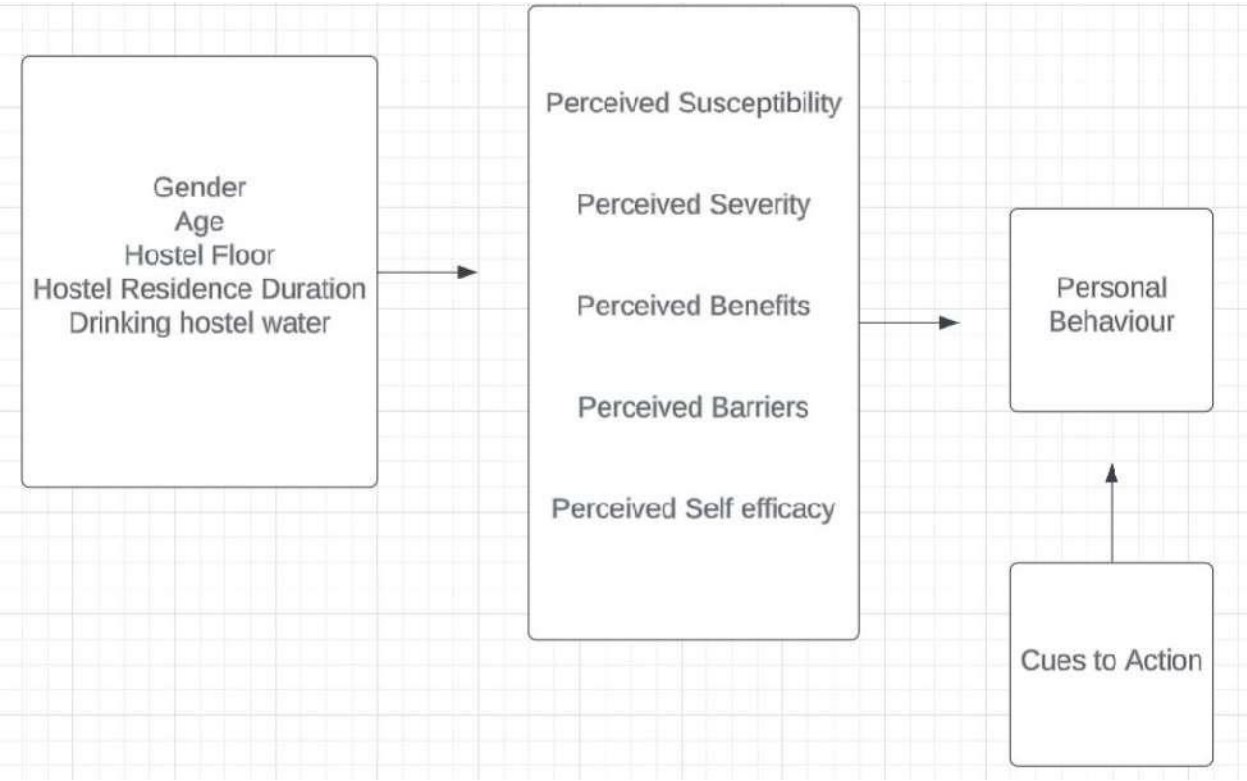

Figure 2: Adaptation of Health Belief Model to the Study

2.3 Empirical

In a study conducted by Etea et al. (2021) titled "Risk Perceptions and Experiences of Residents Living Nearby Municipal Solid Waste Open Dumpsite in Ginchi Town, Ethiopia: A Qualitative Study," all participants viewed the municipal solid waste open dumpsite as a threat to both the environment and their health. Residents expressed feelings of anger and disappointment due to the lack of solutions for the ongoing waste disposal at the site, as well as experiencing symptoms related to respiratory disorders and psychological distress. Their perception of the risks associated with living near the dumpsite was influenced by their personal experiences and observations of its physical conditions, which ultimately impacted their emotional responses to the proximity of the open dumpsite (Etea et al., 2021).

Methodology

The study by Etea et al., (2021), examined the Knowledge and perception of the risk of living close to the dumpsite employed the use of various methods, which includes:

The literature review included 31 journal articles, primarily focused on public health risks and the effects of living near dumpsites globally.

A survey was conducted in Ginchi town, located in central-western Ethiopia, which has a population of 23,118 and 4,816 households. Participants were selected from those who had lived within a 1 km radius of the dumpsite for at least five years. A qualitative purposive sampling technique was used, with data collection taking place in the participants' homes after they voluntarily consented to participate in the study. Following a thorough observation of the community, a checklist was created, and

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a focus group discussion lasting 45 minutes was conducted with six participants from each group to assess the residents' risk perceptions. A descriptive phenomenological approach was used to analyze individual experiences, with each interview lasting about 30 minutes. The interviews were audio recorded, and interviewers took notes during the sessions.The sample size was established based on data saturation, which occurs when consistent responses are received for the same questions. The analysis was conducted using OpenCode qualitative data analysis software, version 4.03.

Another study by Olu and Iyere (2020) examined the perceptions of residents and workers regarding the environmental health impacts of a dumpsite in Solous Igando, Lagos, Nigeria. The findings revealed that the community surrounding the dumpsite expressed dissatisfaction with the landfill and its negative health effects, which included malaria, typhoid, and skin infections.The authors found that the dumpsite serves as a conduit for disease transmission, with 99.3% of respondents living near the site and 77% of the workers sharing this view. Additionally, their findings indicated that the odor from the dumpsite, as well as infestations of insects and rodents, along with burning activities, had significant correlations with the poor health of the community living near the dumpsite, leading to a predictive model for their health status.

Methodology

The study conducted by Olu & Iyere (2020), assessed the Perception of the residents and workers towards the environmental health effects of the Solous dumpsite Igando by using various methods, which includes:The literature review included 22 journal articles, with a focus on public health and occupational health and safety.The survey primarily targeted workers and residents within a 0-3 km radius of the Solous dumpsite in the Ikotun/Igando Local Council Development Area of Alimosho Local Government in Lagos State. Participants were selected through random sampling to represent the population accurately. The study involved 320 residents living near the dumpsite and 100 workers employed there. In total, 177 questionnaires were distributed to residents, while 80 were given to dumpsite workers. Of these, 157 questionnaires from residents were returned, with 150 completed correctly, while 66 questionnaires were returned from workers, with 61 filled out properly.A structured, self-generated questionnaire was used to collect data, divided into two sections: socio-demographic information and perceptions of the hazards associated with the dumpsite for both residents and workers.

Additionally, a study by Njoku et al. (2019) titled *Health and Environmental Risks of Residents Living Close to a Landfill: A Case Study of Thohoyandou Landfill, Limpopo Province, South Africa* aimed to assess the perceptions of residents living near the landfill regarding environmental issues, health concerns, and overall life satisfaction. The research found that 78% of participants living in proximity to the landfill reported significant air quality contamination due to unpleasant odors from the site. Furthermore, over 56% of respondents expressed concerns about the potential future impact on their health.Nevertheless, 10% of the respondents living near the landfill stated that the accumulation of solid waste at the site did not pose a significant issue for them. This finding led to the conclusion that residents in the vicinity of the landfill were generally dissatisfied with the location of their community.

Methodology

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The methodology employed in the research by Njoku et al. (2019) titled Health and Environmental Risks of Residents Living close to a Landfill: A Case Study of Thohoyandou Landfill, Limpopo Province, South Africa were as follows:

- A literature review was conducted, encompassing 61 articles, journals, and books, primarily focusing on the health effects experienced by residents and communities living near dumpsites, as well as identifying contaminants in these environments.
- To assess the number of households and institutions in the area, a reconnaissance survey was performed. This survey revealed that approximately 100 households, averaging four people each, were located about 100 meters from the landfill, leading to a calculated sample size of 100. A stratified random sampling method was used, with a landfill operations manager and three university students from the University of Venda, South Africa, trained and employed for data collection.
- A five-page questionnaire was pre-tested with 10 respondents to identify errors and limitations for corrections. After making necessary adjustments, a total of 100 respondents participated. Initially, most residents expressed a willingness to cooperate with the study. However, during the data collection phase, six households declined to participate, citing their belief that the research would not benefit them, as they were not homeowners and thus felt less responsible for the community's environmental issues.
- The questionnaire included questions about perceptions of neighborhood problems, the importance of environmental issues, commonly experienced illnesses, and general life in the community. Questions regarding environmental concerns were categorized as serious, fairly serious, or not serious, while those about frequently experienced illnesses were coded as fairly frequent or not frequent. The environmental issues addressed in the questionnaire included solid waste disposal, garbage and litter in the streets, undesirable landfill locations, air pollution, unpleasant odors, water pollution, noise pollution, and dust. The data was analyzed using the Statistical Package for the Social Sciences version 25.

Findings

Research conducted by Etea et al. (2021), Olu & Iyere (2020), and Njoku et al. (2019) revealed that improperly managed waste significantly impacts the health of both community members and the surrounding environment. Residents living near the dumpsite expressed dissatisfaction with its presence and demonstrated a strong awareness of the associated environmental and health risks. Health issues reported included malaria, typhoid fever, skin irritations, and diarrhea. Many residents were particularly concerned about air pollution, as some had experienced respiratory illnesses, likely because air pollution is more easily identified as a threat. Additionally, participants believed that the dumpsites could contribute to water and soil pollution, posing both immediate and long-term health risks to those in close proximity. Increased risk perceptions were more pronounced among individuals who had experienced health problems linked to their living conditions. Conversely, those who relied on the dumpsite for their livelihood tended to downplay the associated risks. Most of these individuals had worked at the dumps for over five years and reported

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infrequent illness, possibly due to a stronger immune system or denial stemming from their reliance on this source of income (Olu & Iyere, 2020).Njoku et al. (2019) discovered a statistically significant relationship between all seven variables in the community and environmental issues. Residents living near the dumpsite reported experiencing various health problems, including flu, respiratory issues, coughing, asthma, eye irritation, and general weakness. Additionally, individuals in these communities noted that friends were often reluctant to visit, and property owners encountered challenges when trying to rent or sell their properties.

Limitations

The studies conducted by Etea et al. (2021), Olu & Iyere (2020), and Njoku et al. (2019) faced limitations regarding the time required for more comprehensive research, as well as a need for additional manpower and funding.

CHAPTER THREE

Methodology

3.1 Research Design

Research design is a plan or a framework adopted by a researcher before data collection is made on the field to enable the researcher meet the objectives set in a valid way (Asenahabi, 2019). The main goal of a research design is to interpret the research problem into data that can be analysed to provide relevant answers to questions asked in a cost-effective manner. A descriptive cross-sectional survey is a study that analyses data from a population at a particular period in time using observations (Wang & Cheng, 2020). This method was employed in the course of the research as it was more appropriate in assessing the prevalence of a phenomenon occurring at a particular period in time without giving a reason for why the phenomenon occurred at that specific time.

3.2 Research Setting

The research setting refers to the location or environment where a study is conducted, encompassing details about the nature, context, environment, and logistics involved (Majid, 2018). For this study, the setting was the Lagos State College of Nursing, Igando, located in Alimosho Local Government Area. The college, established in 2013 after relocating from Awolowo Road, Ikoyi, and achieving accreditation, includes both nursing and midwifery departments. All students are required to reside in the school's hostel, a three-story building situated less than 50 meters from a nearby dumpsite. Alimosho Local Government, the largest in Lagos State, is serviced by this dumpsite, commonly known as "Oko Filling," which handles waste from the local area and surroundings.

3.3 Target Population

The target population refers to the group of individuals that a research study aims to investigate (Majid, 2018). For this study, the target population consisted of 1st, 2nd, and 3rd-year students from all departments at Lagos State College of Nursing, Igando. The college has a total of 390 students across both its nursing and midwifery departments. Since all students are required to reside in the hostel, which is situated near the dumpsite, every student had an equal opportunity to participate in the study, as they are all affected by the dumpsite's proximity— the central focus of the research.

3.4 Sample Size

The sample size in a research study is a subset selected from the entire population to represent that population, as it is often impractical to include the entire population

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of interest (Majid, 2018). Lagos State College of Nursing, Igando, has a total of 390 students, and the sample size for this study can be determined using the Taro Yamane formula, with a 95% confidence interval. This approach is based on the research titled *Elementary Sampling Theory*, as referenced in Nottidge et al. (2019). The formula for calculating the sample size is as follows:

n= □/1+□ (□)2
Where;
n= sample size
N= Population size (390)
e= margin of error (0.05)
n= 390/1+390 (0.05^2)
n= 197.5
An attrition of 10% (~20) of the sample size was added to compensate for respondents who choose to withdraw interest in participating in the research and also for lost questionnaire.

3.5 Sampling Technique

The sampling technique refers to the method used to select representatives from a population to serve as a sample (Majid, 2018). In this study, a random probability sampling technique was applied to determine the sample size of the students, ensuring the selection process was free from bias. Random sampling ensures that every individual in the population has an equal chance of being chosen as a participant (Majid, 2018). Since all students reside in the school-owned hostel, each has been affected by the proximity to the dumpsite, making them suitable for inclusion in the study.

InclusionCriteria:
Inclusion criteria refer to the key attributes of the target population that are necessary to address the research questions (Patino & Ferreira, 2018). For this study, the inclusion criteria consisted of all students of Lagos State College of Nursing, Igando, who were present in the hostel during the two-week period when the research was conducted.

ExclusionCriteria:
Exclusion criteria are the characteristics of potential participants that may interfere with the study's success or increase the risk of unfavorable outcomes, even if they meet the inclusion criteria (Patino & Ferreira, 2018). In this case, students who were away on clinical postings or those who had received special permissions to be absent from the hostel were excluded from the study.

3.6 Instrument For Data Collection

Instruments for data collection refer to tools utilized to gather data from relevant sources, ensuring that research studies are effective and meaningful (Mwita, 2022).

In this study, the data collection instrument involved the use of a self-structured questionnaire, which included a Likert scale to accurately capture respondents' attitudes and opinions. The self-structured questionnaire was divided into five sections:

Section A: This section gathers demographic information from the respondents, focusing on their socio-demographic characteristics.

Section B: This section contains Likert scale questions aimed at assessing the students' knowledge of the health risks associated with living near the.

Section C: Likert scale questions in this section evaluate the students' perception of the health risks posed by living close to the dumpsite.

Section D: This section identifies common illnesses that Lagos State College of Nursing, Igando students may have experienced due to living near the dumpsite.

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Section E: This section seeks to identify factors that may influence the students' perception of health risks related to the proximity of the dumpsite.

3.7 Validity of Instrument

Instrument validity refers to the extent to which an instrument accurately measures what it is intended to measure, ensuring the truthfulness of the research findings (Kubai, 2019). To achieve this, the structured questionnaires were reviewed by my project supervisor to ensure the questions effectively addressed the research questions and aligned with the study objectives. Necessary corrections and adjustments were made to ensure both face and content validity.

3.8 Reliability of Instrument

Instrument reliability refers to the consistency and dependability of a measurement, ensuring that it can be replicated and yield the same results (Kubai, 2019). The reliability of the instrument was evaluated using the test-retest method, where the same questionnaire was administered to students at different time intervals. The data was analysed using Cronbach's alpha to assess internal consistency, resulting in reliability index scores of 0.79, 0.84, 0.89, and 0.78.

3.9 Method of Data Collection

The method of data collection refers to the approaches used to increase the likelihood of achieving research objectives and effectively answering the research questions (Mwita, 2022). A Likert scale was employed, with responses ranging from Strongly Agree, Agree, Disagree, Strongly Disagree, to Unsure, to measure the respondents' level of agreement with the items presented. Data was collected over a period of 14 days using a simple random probability sampling technique. This involved drawing names from a bowl containing well-mixed slips with the respondents' names until the required sample size was met. A total of 198 completed questionnaires were retrieved from the field after distribution.

3.10 Method Of Data Analysis

The method of data analysis refers to the process of transforming the collected data into meaningful insights (Taherdoost, 2020). Data from respondents was gathered, sorted, and organized for analysis. The Statistical Package for the Social Sciences (SPSS) version 26.0 was used due to its ability to efficiently handle complex datasets and perform advanced statistical analyses.

3.11 Ethical Consideration

Ethical considerations are a set of guidelines or codes of conduct that ensure research practices are properly conducted (Bhandari, 2021). Before the study began, permission was obtained from the Provost of the College, and a gatekeeper's approval was granted by the College Research Committee. Respondents were informed about the research objectives, and written consent was obtained to confirm their voluntary participation. Confidentiality and privacy were strictly maintained throughout the study, and participants were informed of their right to withdraw from the research at any point without any obligation. The study ensured that all data collected was based solely on participants' responses, free from bias.

Chapter Four
Results

4.1 Introduction

This chapter presents the results of the research carried out to study the knowledge and perception of the health risk posed by living close to the dumpsite among students at Lagos State College of Nursing, Igando. It shows the presentation and analysis of the data gathered using questionnaires

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administered to the respondents. One hundred and ninety-eight (198) questionnaires were distributed and retrieved. Three research questions and four hypotheses were formulated and tested. The data were analysed using frequency count, percentages, and Chi-square analysis.

Socio-Demographic Data

Table 1: Socio-Demographic Characteristics of Respondents

Socio-Demographic Characteristics	Responses	Frequency (n=198)	%
Gender	Male	30	15
	Female	168	85
Age	16-20	64	32
	21-25	102	52
	26-30	26	13
	31-35	2	1
	36 years and above	4	2
How long have you been residing in the college hostel?	3-6 months	42	21
	7-12 months	26	13
	13-18 months	22	11
	19-24 months	28	14
	25 months and above	80	40

From Table 1 above, Among the age groups, the highest proportion falls within the range of 21-25 years, comprising 52% of the sample. The 16-20 age group represents 32% of the respondents, while the remaining age groups (26-30, 31-35, and 36 years and above) have smaller proportions.

In terms of the duration of residency in the college hostel, the highest proportion of respondents (40%) have been residing in the hostel for 25 months or more. The other durations, ranging from 3-6 months to 19-24 months, have varying proportions, with the lowest being 11% for the duration of 13-18 months. Regarding the floor distribution in the hostel, the highest number of respondents (49%) reported residing on the third floor, followed by the second floor (31%) and the first floor (19%).

These findings provide insights into the demographic characteristics, and living arrangements, of the respondents in relation to their proximity to the dumpsite.

4.2 ANSWERING OF RESEARCH QUESTIONS

Research question 1: What is the level of knowledge regarding the health risk posed by living near the dumpsite among the

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Lagos State College of Nursing Students Igando?

Section B of the questionnaire highlights the answer to this question. The results are as seen in Table 2 and 3 below.

Table 2: Knowledge of the Health Risk Posed by Living near the Dumpsite

Questions	Strongly Agree (%)	Agree (%)	Disagree (%)	Strongly Disagree (%)	Unsure (%)
Dumpsites serve as a source of different types of pollution	172 (87)	24 (12)	-	2 (1)	-
Dumpsites releases chemicals to the environment	148 (75)	46 (23)	4 (2)	-	-
Dumpsites affect the underwater in the host community	118 (60)	58 (29)	6 (3)	4 (2)	12 (6)
Dumpsites create air pollution	182 (92)	16 (8)	-	-	-
Air pollution is linked to a variety of respiratory conditions	120 (61)	72 (36)	4 (2)	-	2 (1)

Table 2 above indicates that respondents exhibit a high level of awareness about the health risks associated with residing near a dumpsite. A considerable majority, 87%, strongly agreed that dumpsites contribute to various forms of pollution, while 75% acknowledged that they release harmful chemicals into the environment. Additionally, 60% of participants recognized the negative effects of dumpsites on the aquatic ecosystem in the host community and 92% identified the contribution of

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dumpsites to air pollution. Furthermore, 61% of respondents made the connection between air pollution and different respiratory issues.A significant number of respondents also noted the visual pollution resulting from dumpsites, with 61% agreeing and 26% strongly agreeing with this assessment. The study further revealed that many respondents (53% agreeing and 32% strongly agreeing) were aware that environmental pollution caused by dumpsites could lead to psychological distress.In contrast to the assumption that individuals residing near a dumpsite maintain good health, most respondents (64%) disagreed or strongly disagreed with this idea. Furthermore, a notable percentage of participants (31.4%) agreed or strongly agreed that the dumpsite close to the student hostel should be moved away from the residential area, reflecting their concern about its closeness to their living environment.

Overall, these findings highlight a strong level of knowledge and awareness among respondents regarding the health risks associated with living near a dumpsite, underscoring the necessity for effective measures to mitigate these risks, such as relocation and environmental regulations.

Table 3: **Knowledge Level of Respondents towards the Health Risk Posed by Living close to the Dumpsite**

Knowledge Level	Frequency (%)
Good	180 (91)
Poor	18 (9)
Total	198 (100)

Table 3 above presents the knowledge level of the respondents towards the health risk posed by living close to the dumpsite among students of Lagos State College of Nursing in Igando.

Out of the total 198 respondents, the majority (91%) demonstrated a good knowledge level regarding the health risk posed by living close to the dump site. On the other hand, a smaller proportion (9%) of respondents had a poor knowledge level regarding health risk.These findings suggest that a significant number of students at Lagos State College of Nursing in Igando possess a good understanding of the potential health risks associated with living in proximity to the dump site. The categories of respondents' knowledge level of respondents towards the health risk posed by living close to the dumpsite were arrived at by assigning a score to respondents' response to each question item in the questionnaire, a score of 1 was assigned to a good response while a poor response takes a score of 0

Research question 2: What is the perception level regarding the health risk posed by living near the dumpsite among the Lagos State College of Nursing Students Igando?

Section C of the questionnaire highlights the answer to this question. The results are as seen in Table 4 and 5 below.

Table 4: Perception of the Health Risk Posed by living near the Dumpsite

Questions	Strongly Agree (%)	Agree (%)	Disagree (%)	Strongly Disagree (%)	Unsure (%)
Pollution caused by the dumpsite	96 (49)	82 (41)	-	-	20 (10)

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can be easily identified					
Do you think you are exposed to health risks caused by the dumpsite pollution	130 (66)	60 (30)	-	2 (1)	6 (3)
Do the impacts of the risk caused by the dumpsite pollution affect you immediately	32 (16.2)	88 (44.4)	54 (27.3)	4 (2)	20 (10.1)
How severe is the pollution caused by the dumpsite surrounding your hostel	110 (56)	66 (33)	4 (2)	-	18 (9)
How severe do you think the pollution caused by the dumpsite has impacted on your health	84 (42.4)	76 (38.4)	14 (7.1)	2 (1)	22 (11.1)
Do you think that the local authorities need to develop methods to regulate the pollution caused by the dumpsite?	174 (87.9)	22 (11.1)	2 (1)	-	-

From Table 4 above, the findings reveal a strong perception among respondents regarding the health risks posed by living near a dumpsite. A significant majority agreed that they could easily identify the pollution caused by the dumpsite (90%) and believed they were exposed to

health risks due to the dumpsite pollution (96%). Furthermore, a substantial proportion of respondents (60.6%) agreed that the impacts of the risk caused by the dumpsite pollution affected them immediately.

In terms of the severity of pollution surrounding their hostel, a majority of respondents (89%) agreed that it was severe. They also expressed the belief that the pollution caused by the dumpsite had a severe impact on their health (80.8%). Additionally, almost all respondents (99%) agreed that local authorities need to develop

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methods to regulate the pollution caused by the dumpsite.

These findings demonstrate a high level of perception among respondents regarding the identification of pollution, personal exposure to health risks, immediate impact of the risk, severity of pollution, impact on health, and the need for regulatory measures. It underscores the urgency of addressing the health risks associated with living near a dumpsite and implementing appropriate measures to mitigate those risks.

Table 5: **Perception Level of Respondents towards the Health Risk posed by Living close to the Dumpsite**

Perception Level	Frequency (%)
Positive	178 (90)
Negative	20 (10)
Total	198 (100)

Table 5 above presents the perception level of the respondents towards the health risk posed by living close to the dumpsite among students of Lagos State College of Nursing in Igando.

Among the total 198 respondents, the majority (90%) demonstrated a positive perception towards the health risk posed by living close to the dumpsite. On the other hand, a smaller proportion (10%) of respondents had a negative perception of the health risk.These findings suggest that a significant number of students at Lagos State College of Nursing in Igando hold a positive perception regarding the health risk associated with living in proximity to the dumpsite. They are aware of the potential dangers and hazards posed by such an environment. The categories of respondents' perception level of respondents towards the health risk posed by living close to the dumpsite were arrived at by assigning a score to respondents' response to each question item in the questionnaire, a score of 1 was assigned to a positive response while a negative response takes a score of 0.

Research question 3: What are the health risk posed by living near dumpsite among the Lagos State College of Nursing Students Igando? 43

Section D of the questionnaire highlights the answer to this question. The results are as seen in Table 6 and 7 below.

Table 6: Common Illnesses that may have been experienced by the Lagos State College of Nursing Students, Igando due to living near the Dumpsite

Questions	Strongly Agree (%)	Agree (%)	Disagree (%)	Strongly Disagree (%)	Unsure (%)
Frequent gastrointestinal disorders like diarrhea	104 (52.5)	62 (31.3)	16 (8.1)	4 (2)	12 (6.1)
Frequent increase in respiratory disorders/irritations	120 (60.6)	62 (31.3)	12 (6.1)	-	4 (2)

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like cough, catarrh, asthma					
Frequent skin disorders/irritations like pruritus	48 (24.2)	78 (39.4)	50 (25.3)	2 (1)	20 (10.1)
Frequent eye irritations like conjunctivitis	44 (22.2)	66 (33.3)	54 (27.3)	4 (2)	30 (15.2)

From Table 6 above, the findings indicate that a significant proportion of respondents (83.8%) agreed or strongly agreed that living near the dumpsite may have led to frequent gastrointestinal disorders like diarrhea. Additionally, a majority of respondents (91.9%) agreed or strongly agreed that living near the dumpsite may have resulted in a frequent increase in respiratory disorders/irritations such as cough, catarrh, and asthma. Furthermore, a significant proportion of respondents (63.6%) agreed or strongly agreed that living near the dumpsite may have led to frequent skin disorders/irritations like pruritus. Moreover, a substantial proportion of respondents (55.5%) agreed or strongly agreed that living near the dumpsite may have resulted in frequent eye irritations like conjunctivitis.

Table 7: **Common Illnesses experienced by Students of Lagos State College of Nursing, Igando due to Living close to the Dumpsite**

Level of illness frequency	Frequency (%)
High	176 (89)
Low	22 (11)
Total	198 (100)

Table 7 outlines the common illnesses reported by students at Lagos State College of Nursing in Igando due to their proximity to the dumpsite. Among the 198 respondents, a large majority (89%) indicated that they often fell ill from common ailments associated with living near the dumpsite, while a smaller group (11%) reported experiencing low levels of illness frequency.

These results imply that a significant portion of students at the college is affected by various common illnesses linked to their living conditions near the dumpsite. The categorization of these illnesses was determined by assigning scores to respondents' answers on the questionnaire, with a score of 1 for positive responses and 0 for negative ones.

Research question 4: What factors may influence the perception of the health risk posed by living near the dumpsite among the Lagos State College of Nursing Students Igando?

Section E of the questionnaire highlights the answer to this question. The results are as seen in Table 8 below.

Table 8: Factors that may influence the Perception of the Health Risk

Questions	Yes (%)	No (%)	Sometimes (%)

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Do you drink water that runs in the hostel?	124 (63)	32 (16)	42 (21)
Do you have previous history of gastrointestinal disorder prior to admission into the college?	48 (24)	134 (68)	16 (8)
Do you have previous history of respiratory disorder prior to admission into the college?	22 (11)	168 (85)	8 (4)
Do you have previous history of skin disorder prior to admission into the school?	30 (15)	164 (83)	4 (2)
Do you have previous history of eye irritation prior to admission into the school?	34 (17)	156 (79)	8 (4)

According to table 8 above, regarding drinking water in the hostel, a majority of respondents (63%) reported that they consume the water supplied in the hostel. About 16% indicated that they do not drink this water, while 21% stated that they sometimes do.The table also presents data on the prevalence of various health issues among the respondents, including gastrointestinal disorders, respiratory disorders, skin disorders, and eye irritations. Approximately 24% of respondents reported a history of gastrointestinal disorders, whereas 68% did not have such a history, and 8% stated they experienced them occasionally.For respiratory disorders, 11% reported a history, while 85% did not, and 4% mentioned experiencing them occasionally. Regarding skin disorders, around 15% reported a history, 83% did not, and 2% experienced them occasionally. Lastly, for eye irritations, 17% reported having a history, while 79% did not, and 4% experienced them sometimes. These findings offer insights into the factors that may shape the students' perceptions of health risks.

4.3 Hypothesis Test

Hypothesis 1

Ho1: There is no significant relationship between the knowledge and perception level of the Lagos State College of Nursing Students, Igando towards the health risk posed by living close to the dumpsite.

H11: There is a significant relationship between the knowledge and perception level

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of the Lagos State College of Nursing Students, Igando towards the health risk posed by living close to the dumpsite.

Table 9: Knowledge Level of the Students towards the Health Risk Posed by Living close to the Dumpsite * Perception Level of the Students towards the Health Risk Posed by Living close to the Dumpsite Crosstabulation

	Perception level		
	Negative	Positive	Total
Knowledge level good count	18	162	180
% within knowledge level	10%	90%	100%
poor count	2	16	18

Table 10: Chi-square Tests

	value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.022[a]	1	.881
N of valid cases	198		

The chi-square test results show that there is no statistically significant relationship between the students' knowledge level and their perception of the health risks associated with living near the dumpsite ($\chi 2 = 0.022$, df = 1, p = 0.881).

Consequently, we fail to reject the null hypothesis (Ho1), which posits that there is no significant relationship between the students' knowledge level and their perception level. Thus, the data does not provide enough evidence to conclude that a significant relationship exists between the students' knowledge and perception regarding the health risks of living near the dumpsite.

Hypothesis 2

Ho2: There is no significant relationship between length of stay in school hostel and health conditions experienced/known.

H12: There is a significant relationship between length of stay in school hostel and health conditions experienced/known.

Table 11:Length of stay in School Hostel * Health Conditions Experienced/Known

			Health conditions experienced/known		
			Good	Poor	Total
length of stay in school hostel	3-6months	counts	36	6	42
		% within length of stay in school hostel	85.7%	14.3%	100.0%
	7-12months	Counts	24	2	26
		% within length of stay in school hostel	92.3%	7.7%	100.0%
	13-18months	Counts	22	0	22
		% within length of stay in school hostel	100%	0%	100%
	19-24months	Counts	24	4	28
		% within length of stay in school hostel	85.7%	14.3%	100.0%

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	>25months	Counts	70	10	80
		% within length of stay in school hostel	87.5%	12.5%	100%
Total		Counts	176	22	198
		% within length of stay in school hostel	88.9%	11.1%	100%

Table 12: Chi-square Tests

	value	df	Asymptotic Significance (2-sided)
Pearson Chi-square	3.928	4	0.416
N of Valid Cases	198		

The chi-square test results indicate that there is no statistically significant relationship between the length of stay in the school hostel and the health conditions reported or recognized by the students ($\chi 2 = 3.928$, df = 4, p = 0.416).

As a result, we fail to reject the null hypothesis (Ho2), which proposes that there is no significant relationship between the length of stay in the school hostel and the health conditions experienced or known by the students. Therefore, the data does not provide adequate evidence to suggest that the length of stay in the hostel significantly affects the health conditions experienced or acknowledged by the students.

CHAPTER FIVE

Discussion

5.1 Discussion of Findings

The findings from this research show that the majority of respondents are female, making up 85% of the sample, while males account for 15%. This is expected, as nursing is a female-dominated profession. The largest age group is 21-25 years, comprising 52% of the sample, followed by the 16-20 age group at 32%, with smaller proportions in other age groups.

In terms of hostel residency, 40% of respondents have lived in the hostel for 25 months or more. Regarding floor distribution, 49% of respondents reside on the third floor, 31% on the second floor, and 19% on the first floor. Most respondents (63%) reported drinking the water that runs in the hostel.

Additionally, 24% reported a history of gastrointestinal disorders, while 68% did not. For respiratory disorders, 11% had a history, while 85% did not. Approximately 15% reported skin disorders, and 17% reported eye irritations, with the majority not having experienced these conditions before. This suggests that most students had limited prior experience with illnesses potentially linked to living near the dumpsite.

Out of the 198 respondents, the majority (91%) demonstrated a high level of knowledge regarding the health risks associated with living near the dumpsite, while a smaller group (9%) had limited knowledge on the subject. These findings align with the research by Njoku et al. (2019) titled *Health and Environmental Risks of Residents Living Close to a Landfill: A Case Study of Thohoyandou Landfill, Limpopo Province, South Africa*, where 78% of participants living near the dumpsite exhibited a good understanding of the associated risks.

Similarly, 90% of respondents in this study showed a positive perception of the health

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risks linked to living near the dumpsite, while 10% had a negative perception. This mirrors the findings of Etea et al. (2021) in *Risk Perceptions and Experiences of Residents Living Nearby Municipal Solid Waste Open Dumpsite in Ginchi Town, Ethiopia*, where participants unanimously perceived the dumpsite as a health and environmental hazard.

Regarding health impacts, a significant proportion of respondents (83.8%) agreed or strongly agreed that living near the dumpsite likely contributed to frequent gastrointestinal disorders, such as diarrhea. Additionally, 91.9% agreed or strongly agreed that living near the dumpsite may have caused frequent respiratory issues, including cough, catarrh, and asthma. Furthermore, 63.6% agreed or strongly agreed that skin disorders, like pruritus, were likely linked to the dumpsite, while 55.5% believed that frequent eye irritations, such as conjunctivitis, were also related to their proximity to the dumpsite.

The findings of this study support the research by Olu & Iyere (2020) on the *Perception of Residents and Workers Towards the Environmental Health Effects of a Dumpsite in Solous Igando, Lagos, Nigeria*. Their study concluded that living near the dumpsite posed significant health risks, with 99.3% of respondents reporting various illnesses linked to the dumpsite's proximity. Similarly, Etea et al. (2021), in their research on the *Risk Perceptions and Experiences of Residents Living Nearby Municipal Solid Waste Open Dumpsite in Ginchi Town, Ethiopia: A Qualitative Study*, align with this study's findings, as residents frequently experienced symptoms of respiratory disorders. Njoku et al. (2019) further corroborate these results, revealing that residents living near dumpsites often suffered from respiratory issues, coughing, asthma, and eye irritations.

However, the null hypotheses in this research, which state that there is no significant relationship between the knowledge and perception levels of Lagos State College of Nursing students regarding the health risks of living close to the dumpsite, and no significant relationship between the length of stay in the school hostel and health conditions experienced, were not rejected. This indicates that there was insufficient evidence to support the alternative hypotheses, suggesting no significant relationship between the variables. Therefore, the null hypotheses (Ho) were upheld, while the alternative hypotheses (H1) were rejected.

5.2 Implications Of Findings To Nursing Profession

The results of this study highlight the concerns of Lagos State College of Nursing students regarding the health risks associated with living near the dumpsite. The high incidence of illnesses reported by respondents underscores the potential impact on the health of nursing students, which could, in turn, affect the well-being of future nurses and the nursing profession as a whole. Ensuring the good health of future nurses is crucial for their overall well-being, reducing the likelihood of them attending work while ill, which in turn promotes better holistic care for patients and supports the growth and development of the nursing profession.

5.3 Limitations of The Study

The limitations encountered during this research included:

- Insufficient time to conduct the study.

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- Challenges in balancing office responsibilities with research activities.
- Lack of funding or grants.

Nevertheless, despite these constraints, the validity of this work remains intact.

5.4 Summary of The Study

This study focuses on the knowledge and perception of the health risks associated with living near the dumpsite among students of Lagos State College of Nursing, Igando. The objectives were to assess the students' knowledge and perceptions and to identify common illnesses they experienced due to their residence in the hostel, which is located close to the dumpsite. The findings showed that the students possessed a high level of awareness regarding the risks of living near the dumpsite and also had a strong perception of these risks. However, they also experienced significantly high levels of common illnesses related to their proximity to the dumpsite.

5.5 Conclusion

In conclusion, students of Lagos State College of Nursing, Igando, demonstrate a high level of knowledge and awareness regarding the health risks posed by living near the dumpsite. However, a significant number of students reported frequent illnesses, indicating a serious concern that warrants attention from stakeholders, including the government, healthcare community, and school management.

5.6 Recommendations

Based on the findings, the following recommendations are proposed:

- **Relocation of the Dumpsite:** It is essential to relocate the dumpsite near the Lagos State College of Nursing hostel due to its proximity to both the hostel and nearby hospital. This will help prevent further deterioration of the health of students and patients in the hospital.
- **Provision of Stipends:** It is recommended that students receive stipends to promote health and prevent illness. Financial difficulties were identified as a barrier to healthy behavior during this research, and stipends would help alleviate this issue.
- **Water Treatment:** Given the high number of students who consume hostel water and report gastrointestinal disorders, it is crucial to prioritize proper treatment of the water in the school environment.
- **Free Healthcare Access:** Nursing students should have free access to healthcare services to prevent illness. Given their exposure to hospital environments during training, they should receive free medical check-ups as compensation.
- **Health Risk Education:** It is important to frequently remind students of the need to prioritize their health. Many of these students are young adults, and they may not always place sufficient importance on maintaining healthy behaviors.
- **Policy Advocacy:** Policymakers should be encouraged to implement regulations that prioritize the health of communities living near dumpsites. This includes stronger health protection measures and stricter waste management practices.

5.7 Suggestions For Further Study

The Following Suggestions are recommended for future research on the knowledge and perception of health risks among Lagos State College of Nursing students regarding living near the dumpsite:

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- **Long-term Health Impact Investigation:** Conduct longitudinal studies to track the long-term health outcomes of students living close to the dumpsite.
- **Educational Interventions:** Explore various educational programs to improve students' risk awareness and empower them to adopt preventive measures against illness.
- **Socioeconomic Influence:** Investigate the role of socioeconomic factors in shaping students' knowledge and perception of the health risks posed by living near the dumpsite.
- **Mental Health Assessment:** Examine the psychological and emotional well-being of students living near the dumpsite to assess the prevalence of anxiety, stress, depression, and other mental health issues.

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