# STRATEGIES TO ENHANCE NURSES' PARTICIPATION IN HEALTHCARE RESEARCH IN THE CONTEXT OF HIV AND AIDS TRANSMISSION IN NIGERIA

by

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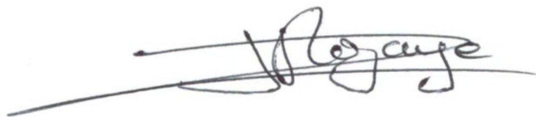

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# DEDICATION

*"Work hard for what you desire because it will not come to you until you battle for it. You must be strong and bold, and you must believe that you are capable of doing everything you set your mind to. If someone criticises or dismisses you, maintain believing in yourself and turning it into something extraordinary" (Leah LaBelle).*

To the Almighty God, my wife, Florence Abiodun Rojaye, and our children Augustine Ibidamola Abimbola, Pius Oyinkonsola Abimbola and Esther Moyosolaoluwa Abimbola. Your immeasurable support, patience and understanding has not been in vain while I was unavoidably away from home when you needed my attention the most.

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*"No one achieves success without appreciating the assistance of others."*
*The intelligent and self-assured express their thanks for this assistance."*
*Alfred North Whitehead*

I offer all praise to God for the wonderful things He has done for me. This research study would not have been completed without His succour and everlasting mercy. I also express my most heartfelt gratitude to my Lord Jesus Christ for the grace to complete my doctoral programme,

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## ABSTRACT

**Background:** Reducing the disease-related hardships in Nigeria's HIV and AIDS transmission context needs research-based multi-sectoral and multidisciplinary strategies that scientifically inform research findings for relevant research advocacy. As health professionals, nurses play a crucial role in health-sector solutions to lower the burden of diseases such as HIV. However, the deep awareness of HIV and AIDS transmission did not convert into research generation through independent research output in this environment.

**Purpose:** This study aimed at developing strategies that enhance nurses' participation in healthcare research in Nigeria's HIV and AIDS transmission context.

**Method:** This study adopted a qualitative research approach in conjunction with exploratory and descriptive research designs as this enabled the provision of further details and information in aspects of the research field where knowledge is limited. The study population consisted of about 200 registered nurses providing nursing care at a general hospital in Ogun State, Nigeria, a 160-bed tertiary hospital providing various medical and nursing care services.

**Sample:** The non-probability purposive sampling technique was utilised for the selection of 31 registered nurse participants. In-depth interviews were held with 10 of these nurses, while 21were involved in three focus group discussions as part of the study’s overall data collection regime. The modified six-phase data analysis method was utilised to correlate and integrate the information from the individual in-depth interviews and focus group discussions into coherent themes addressing the study’s investigated problem.

**Result:** The study found that nurses in Nigeria were largely aware of local and worldwide HIV trends, the mechanisms for mobilising local initiatives, and the critical role of applying research findings in effectively reducing HIV and AIDS. However, they were usually unconcerned with their role in HIV and AIDS healthcare research development. While the nurses were primarily engaged in data gathering and validation, their personal understanding did not convert into knowledge disseminated via autonomous research productivity and publications in this area. Instead, they preferred to go with the flow of events and were hesitant to challenge the *status quo*.

**Recommendation:** All nurses should be required to have a university education, and policies that promote a culture of nursing research productivity should be promoted.

**Keywords:** *Contribute,* Context, *Development*, *Enhance, Healthcare, HIV and AIDS, Hospital, Nurses, Participation, Research, Strategies, Transmission.*

## LIST OF ABBREVIATIONS

| | |
|---|---|
| AACN | American Association of Colleges of Nursing |
| ADA | Americans with Disabilities Act |
| AIDS | Acquired Immune Deficiency Syndrome |
| ART | Antiretroviral Therapy |
| ARV | Antiretroviral |
| CDC | Centres for Disease Control and Prevention |
| CINAHL | Citations for Nursing and Allied Health Literature |
| COVID-19 | Coronavirus |
| CST | Critical Social Theory |
| FDA | Food and Drug Administration |
| FGON | Federal Government of Nigeria |
| FRN | Federal Republic of Nigeria |
| GREC | Graduate Research Ethics Committee |
| GRID | Gay-Related Immune Deficiency |
| HAART | Highly Active Antiretroviral Therapy |
| HIV | Human Immunodeficiency Virus |
| HTLV-III | Human T-Lymphotropic Virus III |
| ICN | International Council of Nurses |
| ICAP | International Centre for AIDS Care and Treatment Programmes |
| IOM | Institute of Medicine, United States of America |
| LAV | Lymphadenopathy-Associated Virus |
| MSEM | Modified Socio-Ecological Model |
| NACA | National Agency for the Control of AIDS |
| NANNM | National Association of Nigerian Nurses and Midwives |
| PAR | Participatory Action Research |
| PCP | Pneumocystis carinii pneumonia |
| PMTCT | Prevention of Mother- to- Child Transmission |
| SACA | State Agency in Control of AIDS |
| SFAF | San Francisco AIDS Foundation |
| SROM | System Research Organizing Model |
| SSA | Sub-Saharan Africa |
| STI | Sexual Transmission Infection |
| TB | Tuberculosis |
| UNAIDS | United Nations Programme on HIV and AIDS |
| UNISA | University of South Africa |
| WHO | World Health Organization |

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# CHAPTER 1
# ORIENTATION TO THE STUDY
## 1.1 INTRODUCTION

Africa constitutes just 11% of the world's population but remains the epicentre of the Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS) pandemic (Avert, 2017: 1). According to the World Health Organization's/ WHO's (2017) guidelines, treatment for those living with HIV should provide them with a complete package of services (i.e., screening and diagnosis, treatment, prophylaxis and preventive treatment for specific pathologies, such as tuberculosis (TB), rapid initiation of anti-retroviral treatment (ART), and adherence support) to minimise morbidity and mortality. In Nigeria, over 3.4 million individuals are infected with HIV and AIDS (Avert, 2017: 2). At the same time, approximately 217,000 people are killed by AIDS annually (Leo, 2013: 1). However, progressive HIV programmes have resulted in the achievement of 43% decrease in HIV infections worldwide between 2003 and 2011 (Avert, 2017: 2).

The healthcare industry is crucial to the HIV reaction, with nurses seen as prominent policymakers in the health sector through their engagement in healthcare research development (Ogbolu, Iwu, Zhu & Johnson, 2013: 3). In this regard, nurses' close engagement with individuals and community members also allows for the development of on-going healthcare research in respect of HIV and AIDS transmission in Nigeria. As such, an orientation to research participation by nurses bears positively for a systematic method in tackling existing barriers to the successful nurses' involvement in evidence-based healthcare research development in HIV and AIDS transmission programmes (Rivaz et al. 2017: 16). Furthermore, the research development approach helps investigate and tackle restrictions that prevent nurses' intended impact of lack of research development participation.

Such an approach also offers innovative ideas to identify and overcome obstacles to HIV transmission interventions (Rivaz et al., 2017: 17). These authors contend further that limiting HIV transmission would need the practical use of research as the most suitable option to address the transmission of HIV and AIDS in Nigeria, which would require the incorporation of multidisciplinary collaborative research involving various stakeholders, such as researchers, programme implementers, and policymakers to accelerate research cooperation and communication among these vital stakeholders.

Sturke et al. (2018: 163) assert that nurses, who are vital implementers of HIV policies, ought to be actively engaged in healthcare research-creation to obviate HIV research implementation as the sole preserve of policymakers and management. Richter et al. (2017: 53) also support the latter viewpoint, who argue that nurses should be included in creative research approaches to combat and ultimately defeat the HIV pandemic. In this regard, the South African Department of Health (DoH) (2022: 2) further credited the high success rate in HIV programme coverage to nurses' vital role in executing preventative techniques.

Nearly 2 (two) million adult Nigerians live with HIV and AIDS, accounting for a significant portion of all people living with HIV and AIDS in sub-Saharan Africa (SSA) (UNAIDS, 2019). The UNAIDS (2019: 202) further added that the 2019 results of the Nigeria HIV and AIDS Indicator and Impact Survey posited that the prevalence of HIV in the country is 1.5% among adults aged 15-64 years, with women of reproductive age at an increased risk. Although the country has made significant progress in addressing HIV and AIDS, it still records the most crucial number of HIV infections among children each year globally, with only 18% of infants under eight weeks who tested for HIV (UNAIDS Nigeria, 2019). Nigeria also accounted for over 23% of global paediatric HIV infections in 2016; in 2018, only 35% of HIV- positive children aged 0–14 years were receiving treatment (UNAIDS Nigeria, 2019). The HIV pandemic is still prevalent in 4.1% of Nigeria's population, ranking second to South Africa in worldwide HIV infections (Avert, 2017: 1).

Following WHO's (2012: 7) global strategies to eliminate HIV infection and transmission (guidelines A and B of prophylactic regimens), the Federal Republic of Nigeria (FRN) subsequently launched an HIV prevention programme at six (6) tertiary health centres in Nigeria (National Agency for the Control of AIDS/ NACA 2022: 2). The programme was eventually extended to encompass 5,622 locations across Nigeria's 36 states, including Abuja's capital. Despite the increase in HIV preventive interventions at these locations, the Nigerian government still lags behind the global objective of 80% coverage by 2010 (NACA, 2022: 2).

While many countries in Sub-Saharan Africa (SSA) have made significant strides in reducing the burden of paediatric HIV infection, considerable challenges remain. Despite some successes, Nigeria failed to meet the 2015 Global Plan target of eliminating new HIV infections among children by 90% (Nigeria UNAIDS, 2016: 5). While the availability of inexpensive, effective antiretroviral therapy (ART) for the prevention of mother-to-child transmission (PMTCT) has increased globally, delivery

of PMTCT services is complex. Uptake in Nigeria remains less than optimal. The Nigerian National Agency for the Control of AIDS estimates that only 53,677 out of 177,993 HIV-positive pregnant received ART in 2015 (NACA, 2021: 6). The low uptake of PMTCT resulted in an estimated 160 000 new HIV infections in children in 2018 (UNAIDS 2019: 1). Nigeria is 1 of 21 priority countries in SSA that accounts for 90% of pregnant women infected with HIV (UNAIDS 2019: 4). UNAIDS data (2019: 4) continues to state that the 2016 revision of Nigeria's National Guidelines for HIV Prevention, Treatment and Care contains key recommendations for PMTCT implementation, including initiation of ART for all persons testing positive for HIV.

Additionally, a study by the Nigerian Federal Government showed that the nation had 56,681 HIV-positive people in 2018, while HIV preventive coverage remained at 25.9% in the same year, which is below the predicted objective of 90% by 2015 (John, 2020: 3). According to Reeves (2018: 4), political instability and a lack of healthcare coverage in Nigeria are primarily caused by a poorly functional healthcare system, which explains the above-cited low attainment levels of the anticipated 90% target.

The American Association of Colleges of Nursing (AACN, 2018: 3) intimates that Nigerian nurses are well-positioned to significantly improve the community's health because of their numbers, expertise, and experience. In addition, they are an important systemic element since they lead in caring for patients, as well as established long-term relationships with patients and their families. A Nigerian investigation on the variables that prevent nurses from participating in research has identified the following contributory factors: excessive workload and inadequate staff; lack of experienced nurse researchers and costs involved in the research; lack of organisational support; unavailability of internet services; and lack of nursing research mentors and leaders in the dissemination of research findings. All of the above are among the many barriers that prevent nurses from engaging in research activity and using research findings (American Association of College of Nursing, 2018: 4).

Meanwhile, Leeder (2017: 3) emphasised the importance of research and advice instead of hiding the advantages of research to improve the healthcare system. Furthermore, more robust ties between healthcare providers and research organisations should prevail for healthcare delivery to improve. In that regard, the question could be asked whether nurses are accustomed to executing HIV transmission prevention techniques in achieving certain levels of coverage and the reason for their diffident engagement in decision-making when doing research as well as to overcome implementation constraints (Leeder, 2017: 3).

According to Du Plessis (2017: 25), the causes for nurses' lack of ability for health research and policy participation seem to be consistent with worldwide results, despite that African has specific challenges related to healthcare. As the backbone of the healthcare system, nurses can contribute to health research. As such, they should not be viewed only as caregivers, but as overall health scholars as well (Du Plessis, 2017: 25). In places such as South Africa, there seems to be a lack of emphasis paid to operational research and community-based participatory programmes, which adds to the doubtful value of nursing research (Du Plessis, 2017: 26). Nurses should undertake research related to the health research environment on a national and worldwide level to influence and effect choices (Du Plessis, 2017: 26).

Given nurses' numerical constraints, expertise, and experience gap, the important orientation toward healthcare research results should be adopted to guide health research and practice (Ditlopo, et al. 2014: 4). In that regard, healthcare quality and coverage for HIV prevention and the worldwide eradication goal would be improved. On the other hand, nurses will continue as the missing connection in achieving healthcare objectives unless they transcend their zones of comfort (e.g., bedside care for patients) to take on a new challenge, as well as more prominent leadership positions in research and policymaking (Waddell, Adams & Fawcett, 2017: 4).

## 1.2 BACKGROUND OF THE STUDY

This study's problem was profoundly rooted in the magnitude of HIV prevalence rates and the scarcity of nurses' involvement in healthcare research in Nigeria. In addition, when some nurses engage in research production, they may run into other roadblocks that prevent their findings from influencing policy, such as a lack of congressional interest, a lack of window of opportunity, research that is not focused on a significant health concern, and a paucity of research prominence in the general public and policymakers (Engelman et al. 2019: 4).

Healthcare workers can no longer depend on their initial training, knowledge, and abilities to drive them through their chosen jobs in today's world, which is riddled with problems. When the Institute of Medicine (IOM) of the National Academies published 'Crossing the Quality Chasm: A New Health System for the Twenty-First Century', the need to combine the best research evidence and clinical experience with patients' values became the panacea (Institute of Medicine (IOM) of the National Academies, 2018: 7). The scarcity of PhD-educated nurses may be one of the reasons for the shortage of information regarding nurses' engagement in HIV research to minimise

HIV transmission in Nigeria. Despite their numerical strength, clinical knowledge, and constant presence on the front lines of patient care in Nigeria, nurses still have little engagement in institutional research (Etowa, 2014: 6). Higher education for nurses (e.g., a PhD qualification) would significantly improve nurses' abilities to promote research production.

It is generally recognised that higher education for nurses provides opportunities for enlightenment and liberation from subservient positions (Etowa 2014: 5). Healthcare professionals have a clear role to play in closing the "know-do" gap by incorporating evidence into policy and practice. However, their technical expertise and experience do not always factor into policymaking (Kilama, 2017: 5). The high prevalence of HIV has increased demands for services in Nigeria's already under-resourced healthcare system, prompting an urgent inquiry into solutions to address this need. Examining and optimising nurses' contributions to excellent HIV and AIDS healthcare services is one strategy to deal with this rising demand. In this regard, the study then focuses on the role of nurses in creating HIV research in HIV management to reduce the effect of HIV transmission in Ogun State, Nigeria. Asuquo et al (2018:5) affirm that a study of this nature (focusing on nurses' involvement in healthcare research) is unavailable in Nigeria. Moreover, it is a rarity for Nigerian nurses to receive funding for their (postgraduate) study programmes.

The researcher observed the high frequency of HIV infection while working as a clinical nurse at a private health facility and later at a government health institution in Ogun State, Nigeria, between 1997 to-date. As part of his nursing diploma qualification, the researcher has investigated the prevention of HIV and AIDS by healthcare personnel. As a student learning more about the healthcare system, it was discouraging to find nurse leaders who were highly respected and considered influential but were not contributing to propelling the healthcare system forward in ways that positively shaped the treatment of HIV and AIDS patients in Ogun State, Nigeria. Therefore, the researcher was motivated to undertaking this study mainly due to the problem of the disequilibrium between the high HIV occurrence rates and the potential responsibilities and contributions of Nigerian nurses in healthcare research in the realm of HIV and AIDS. In this context, the study envisages contributing to policymakers as they build these initiatives and aggressively involve nurses in reforming the healthcare structure, including increased engagement in sponsored research formulation in Nigeria.

## 1.3 STATEMENT OF THE RESEARCH PROBLEM

Reducing the burden of HIV and AIDS transmission in Nigeria requires multi-sectoral and multidisciplinary strategies, including accumulated scientific data in enhancing applicable research-based studies. As health professionals, nurses play an essential role in reducing diseases such as HIV. However, such expertise has not converted into knowledge generation through independent research output in respect of the specific Nigerian setting. Furthermore, there is a lack of engagement of nurses in research decision-making, with participation confined to HIV and AIDS research implementation. Although HIV and AIDS may be efficiently treated, the researcher found that nurses lack engagement in developing research in the areas of HIV and AIDS transmission in Nigeria. As a result, questions developed on how Nigerian nurses perceive and react to research development. As a result, there is a need for this research.

## 1.4 PURPOSE OF THE STUDY

The purpose or aim of the study is to develop strategies that enhance nurses' participation in healthcare research on HIV and AIDS transmission in Nigeria. The development of such strategies is intended to enable the exploration and identification of reasons for nurses’ non-implementation of the available healthcare research strategies.

This study examined nurses' involvement in healthcare research and development in Ogun State, Nigeria regarding the spread and treatment of HIV and AIDS. In the above regard, the goal was to identify strategies that encourage nurses to participate in research development in practical terms. Active engagement in this research refers to nurses in leadership roles through participation in critical decision-making areas and contributions at different tiers of the healthcare system.

## 1.5 RESEARCH OBJECTIVES

In essence, research objectives are a measure of the specific activities, processes or procedures intended to positively translate both the research problem and aim into a meaningful or practical reality (Maguire & Delahunt, 2017: 4). Accordingly, in fulfilling or achieving the above-stated purpose or aim, this study’s objectives are:

- To explore nurses' contributions to healthcare research development.

- To explore Nigerian nurses' involvement in healthcare research in respect of the transmission of HIV and AIDS.
- To explore the level of involvement of Nigerian nurses’ in eliminate transmission of HIV and AIDS; and
- To develop strategies for engaging nurses in active healthcare research.

## 1.6 RESEARCH QUESTIONS

In tandem with the research purpose and objectives (Maguire & Delahunt 2017: 4), the research questions are articulated thus:

- How do the nurses contribute to the development of healthcare research development?
- To what extent are Nigerian nurses involved in healthcare research regarding the transmission of HIV and AIDS?
- To what extent are nurses involved in eliminating the transmission of HIV and AIDS?
- What strategies must be developed to engage nurses in Nigeria's healthcare research on HIV and AIDS?

## 1.7 SIGNIFICANCE OF THE STUDY

There is currently a scarcity of information regarding nurses' engagement in HIV research to minimise transmission of HIV in Nigeria. The IOM (2010: 4) recognised the need for nurses to affect the much-needed system change that research can deliver, since they are the most visible members of the healthcare workforce. However, such research was unavailable in Nigeria (Etowa, 2014: 6). It was unusual to come across nurses in Nigeria who have benefited financially from their research-related initiatives. This research study investigates and provides data on the degree to which nurses participate in HIV transmission and management research in Ogun State, Nigeria. The researcher intended to close the gap in nurses' capacity and desire to engage in healthcare research and policymaking in Nigeria's background of HIV and AIDS transmission and management. Furthermore, via mentoring and training of student nurses at all nursing schools, this programme was intended to inspire nurses to advocate for nurses engaged in research from the ground up.

## 1.8 RESEARCH PARADIGM

The term ‘paradigm’ is used in educational research to characterise a researcher's worldview (Mackenzie & Knipe, 2006: 24). This worldview is the point of view, way of thinking, school of thought, or collection of shared ideas that influence study results' meaning or interpretation. It is the perspective through which a researcher views the world. The conceptual prism through which the researcher evaluates the methodological components of their research endeavour establishes the research methodologies and how data is analysed. Leaders in the area, Guba and Lincoln (2020: 45), describe a paradigm as a core set of ideas that governs research activities. Similarly, Denzin and Lincoln (2017: 34), the gurus of qualitative research, describe paradigms as human creations that deal with initial principles revealing where the researcher is coming from to generate meaning incorporated in the study.

### 1.8.1 Pragmatic Philosophical Perspective

A qualitative research approach was opted for, in conjunction with descriptive and exploratory research designs in this investigation. Furthermore, the research study adopted a qualitative technique while adhering to its adopted interpretivism paradigm.

### 1.8.2 Ontology and Epistemology

Ontology is defined as the assumptions made about the nature of reality, as well as the construction and nature of knowledge and its dissemination (Palinkas et al 2020: 4). In the current study, the ontological assumptions are that:

- The concepts of the modified socio-ecological model (MSEM) and the structure, process and outcome model is helpful in describing the reality of the magnitude of HIV prevalence rates and the scarcity of nurses' involvement in healthcare research in Nigeria.

- The social can be described as a reality within the context of the research topic. Research questions are appropriately specific and generally structured by the MSEM and the structure, process and outcome model. The development and applications of the research design by qualitative researchers rest on the researchers’ beliefs that the research question could be answered truthfully. This has an impact on how the assumption of reality should be viewed. There is a reality that the scarcity of PhD-educated nurses may be one of the reasons for the

shortage of information regarding nurses' engagement in HIV research to minimise HIV transmission in Nigeria.

- At the epistemological level, the modified socio-ecological model, on the other hand, is viewed as optimally providing knowledge and understanding of nurses' individual potential to participate in healthcare research based on their accumulated social experiences. However, nurses still have little engagement in institutional research despite their numerical strength, clinical knowledge, and constant presence on the front lines of patient care in Nigeria.

### 1.8.3 Objectivism

According to Palinkas et al. (2020: 4), objectivism is founded on the philosophical research paradigm (worldview or perspective) that external reality may be investigated objectively. Objectivism is further defined as seeing things precisely and is associated with quantitative research studies. There is also a need to keep subjectivity under control and avoid personal judgment and emotions. According to Kumar (2014: 4), objectivism develops when it precludes the feelings and tenor of the participants' judgment of their environment or surroundings. Therefore, the researcher ensures that he does not pass personal judgment or feelings in this investigation.

### 1.8.4 Interpretivism

Silverman (2019: 4) states that social sciences are fundamentally distinct from natural sciences. Various approaches arrive at an interpretive explanation that allow for social research understanding and recognition of the participants' subjective interpretation and meaning of social activity, suitable for qualitative studies (Holloway & Galvin, 2020: 5). The researcher has ensured that the participants' experiences are not manipulated or modified throughout this study since they are treated as the actual reality of the situation. Reality ought to be socially and individually constructed or formed, with the subject actively participating in its interpretation. This study applies the interpretive paradigm based on the participant-focused data collection requirement (Silverman, 2019: 4).

## 1.9 ASSUMPTIONS OF THE RESEARCH

The study had the following epistemological assumptions or knowledge-related claims:

- That there is poor participation of nurses in healthcare research development in respect of HIV and AIDS transmission in Nigeria.
- The participants are comfortable when relating their experiences and knowledge about healthcare research development.
- That the researcher would be able to develop strategies to enhance nurses' participation in healthcare research.

## 1.10 DEFINITIONS OF KEY CONCEPTS

The definition of the alphabetically listed key concepts below is intended to clarify any ambiguity or misunderstanding regarding their disciplinary, contextual, colloquial and practice-related usage (Grove, Gray & Burns, 2019: 6).

### 1.10.1 Context

A context is the background, environment, setting, framework, surroundings or set of circumstances within which an event or something occurs or develops (Silverman, 2019: 5). A context also refers to the conditions surrounding an event, idea, or statement for readers to comprehend and interpret the information pertinent to a particular story or literary work.

### 1.10.2 Enhance

This means improvement or intensification of the value, effect, attractiveness, quality, or desirability of a commodity to individuals or organisations (Pearce & Robinson, 2016: 3). To enhance something also implies to expand or improve its worth, desirability, or beauty in order to accomplish shared objectives.

### 1.10.3 Health Policy

This relates to decisions, strategies, and activities for attaining certain healthcare objectives (Shariff, 2014: 3; WHO, 2012: 5). In this study, health policies comprise decisions about reducing and preventing transmission of HIV and AIDS in Nigeria.

### 1.10.4 HIV and AIDS

HIV (human immunodeficiency virus) is a virus that targets the immune system of the body. AIDS (acquired immunodeficiency syndrome) can develop if HIV is not treated. There is currently no viable treatment available. People who contract HIV are infected for life. HIV, on the other hand, may be controlled with good medical care. AIDS is the advanced stage of HIV infection that happens when the body's immune system is severely compromised by the virus. In the United States, most people with HIV do not acquire AIDS because taking HIV medication as prescribed prevents the disease from progressing.

### 1.10.5 HIV Transmission

Avert (2017: 2) refers to the transmission of HIV as the spread of HIV from one person to the other. HIV and AIDS, which is a retrovirus (a lentivirus) responsible for acquired immunodeficiency syndrome (AIDS). There are two types of HIV, namely: HIV-1 and HIV-2, which eventually cause AIDS (Edwards & Roelofs, 2007: 4).

### 1.10.6 Hospital

A healthcare institution or facility providing patient treatment with specialised medical and nursing staff and medical equipment as constructed, manned and equipped for illness diagnosis (Ofi et al., 2018: 3). It is also a place for medical and surgical treatment of the sick and is usually funded by the public or private sectors (Polit & Beck, 2016: 3).

### 1.10.7 Nurses

Individuals accredited as nurses by the Nursing and Midwifery Council of Nigeria work in hospitals, primary healthcare centres, HIV coordinating agencies, universities, the Ministry of Health, and nursing organisations in Nigeria to achieve good healthcare system results (NACA, 2022: 3). Nurses are present in every community, providing competent care from birth to death. Nurses' responsibilities span from direct patient care and case management to implementing quality rehabilitation and overseeing complicated nursing care systems.

### 1.10.8 Participation

This means the processes and activities intended to inform, consult and involve nurse leaders to allow them to make inputs into the decisions that affect them (NACA, 2022: 3). Participation entails people working together to achieve specific goals more effectively and quickly. Participation also refers to involvement, which refers to situations in which employees have some say over the corporate activities they carry out.

### 1.10.9 Research

The systematic process of actively studying phenomena to obtain evidence-based information concerning their manifestation and other relevant aspects and attributes (Silverman, 2019: 5). In this research study, 'research' refers to the systematic methods to study nurses' involvement in initiatives to prevent HIV transmission from HIV-positive patients in order to establish facts and reach new conclusions. This involves active engagement through participation in critical decision-making areas to establish their contribution at many stages of the healthcare system.

### 1.10.10 Strategies

In this research, the term "strategy" is seen as a framework or scheme that directs a plan of action in a certain scenario (Pearce & Robinson, 2016: 3). Strategies are the art and science of planning and directing overall healthcare operations and treatments to achieve patients' healthcare goals. A strategy also consists of a mission, purpose, philosophy and goals, as well as specific tasks (Pearce & Robinson, 2016:3). This research also describes the proposed strategy to enhance nurses' participation in healthcare research in the context of HIV and AIDS transmission.

## 1.11 OUTLINE OF THE STUDY

The outline of the study's chapters is depicted in Table 1.1 below.

**Table 1.1: Outline of the study**

| Chapters | Content | Content Description |
|---|---|---|
| **1** | Orientation to the study | This chapter describes the study's problem, background, purpose, and significance. The research design and methodology are discussed, and the key terms used in this study are defined. |
| **2** | Literature review | This chapter offers a broad perspective on nurses' participation in healthcare research in the context of HIV and AIDS. |
| **3** | Theoretical perspectives | This chapter describes the set of assumptions about reality that inform the researcher's questions and the kind of answers the researcher arrives at in the study. |
| **4** | Research design and methodology | The chapter describes the research design and methodology employed during this research. |
| **5** | Presentation and description of the study findings | The chapter presents data analysis, research findings and comparison to literature. |
| **6** | Interpretations, discussions of the research findings, recommendations, and conclusion | This chapter centres on the findings' interpretations and discussions, make recommendations for practice and further research and concludes the study. |

## 1.12 SUMMARY

This chapter introduced the rest of the study by highlighting the essential units of analysis in the form of the study background, the research problem, purpose, objectives, and questions. Also discussed were the study's significance, research paradigm, definition of key concepts; as well as the outline of the chapters in the study.

The second chapter presents and discusses the literature review.

# CHAPTER 2
# LITERATURE REVIEW

## 2.1 INTRODUCTION

The literature review emphasises the multiple elements of HIV and AIDS and nurses' engagement in beneficial research. The researcher used search engines and databases such as Citations for Nursing and Allied Health Literature (CINAHL), PUBMED, and Google to find current work in these various areas of interest. The chapter further presents the results of the literature review regarding the potential participation of nurses in healthcare research in HIV and AIDS' context in Nigeria, for which data are available online. Using the same terms, the researcher also gathered information from key agencies and organisations such as the WHO, UNICEF, PEPFAR, and UNAIDS.

The researcher restricted the literature review to peer-reviewed articles published between 2006 and 2022. After revising the selected articles, procured, evaluated, and included articles cited in the selected articles relevant to the dissertation in the review. Articles were included in this review if they were published in English in peer-reviewed journals since the pandemic outbreak in 1981, involving nurses as authors or in the sample and discussion of results. However, much of the nursing literature on HIV and AIDS care comes from international settings such as the United States, Brazil, and South Africa, with very few studies or policies focusing on or involving public health nurses directly (Moshidi et al., 2021: 5)

The current chapter (Chapter 2) discusses significant literature that the researcher relied on to guide the study and interpret my findings to broaden the conceptual framings of research. The review of related literature comprises systematically identifying, locating, and evaluating papers providing data relevant to the study subject (Aehwa & Myungsook, 2020: 561). The literature review serves various significant purposes, making it well worth the work and time. The primary reason for studying the literature is to identify what has previously been performed about the research issue (Aehwa & Myungsook, 2020: 562).

A literature review aims to understand the current research and debates related to a particular subject or area of study and to communicate that information as a written report (Aehwa & Myungsook, 2020: 561). This chapter further reviews the research on nurses' participation in healthcare research in HIV and AIDS transmission in Nigeria. As a result, a stand-alone literature review provides concise and comprehensive

insights into nurses' participation in healthcare research in Nigeria (Creswell, 2018: 64). Subsequently, a thorough review of multiple publications was conducted, the findings of which are provided in this literature review. The origins of HIV and AIDS, the global prevalence of HIV and AIDS, and eradication approaches are discussed first, followed by international HIV and AIDS research. Next, the researcher has reviewed the Nigerian Research Statement on HIV and AIDS prevention. Thirdly, the researcher explored nurses' roles and contributions to HIV and AIDS research.

## 2.2 HIV AND ITS PROGRESSION TO AIDS

The terms, 'HIV' and 'AIDS' are often used interchangeably (Sax, 2020: 1). HIV is a virus that may cause AIDS. A person who is HIV positive (HIV+), has been infected with the virus. Many HIV+ people survive for decades without showing signs of infection (asymptomatic). This is due to the immune system's ability to manage the virus (Sax, 2020: 1). As a result, having HIV+ does not necessarily imply that a person will become AIDS-infected (Sax, 2020: 1). As HIV advances, it weakens the immune system. It makes it more vulnerable to infections, leading to the advanced stage of HIV (between 2 and 15 years) in which infected people get Acquired Immune Deficiency Syndrome, often known as 'AIDS' (WHO, 2014b). The amount of time it takes for a person to get infected with HIV determines how quickly they develop AIDS (Sax, 2020: 1). AIDS is generally referred to be a contemporary pandemic since it is a worldwide illness that is not limited to a single nation or continent (Sax, 2020: 1).

## 2.3 GENESIS OF HIV AND AIDS

HIV is thought to have first appeared in Kinshasa, Democratic Republic of the Congo, about 1920, when it crossed species from chimpanzees to humans. Until the 1980s, HIV was unknown, no one knew how many people were infected, and there were no apparent signs or symptoms of transmission (Avert, 2022c: 2). While there were sporadic cases of AIDS before 1970, the current epidemic started in the mid-to-late 1970s, according to available data. By 1980, HIV may have spread to five continents. During this time, 100,000 and 300,000 people might have been harmed (Avert 2022c:2). Pneumocystis carinii pneumonia (PCP), a rare lung infection, was detected in five young, previously healthy gay males in Los Angeles in 1981 (Avert, 2022c:2). The first occurrences of PCP among drug users were reported in December 1981 (Avert, 2022c: 2). A cluster of instances among homosexual men in Southern California in June 1982 showed that the immune deficit had a sexual origin. The ailment was known as gay-related immune deficiency (or GRID) (Avert, 2022c: 2).

Later that month, the condition was detected among haemophiliacs and Haitians, prompting many to believe it originated in those countries (Avert, 2022c: 3).

The Centres for Disease Control and Prevention (CDC) used the name "AIDS" (acquired immune deficiency syndrome) for the first time, stating that AIDS cases were also being recorded in several European nations (Avert, 2022c: 3). Furthermore, experts in Uganda have uncovered instances of a new, fatal wasting disease known locally as 'slim' (Avert, 2022c: 3). Many AIDS-related organisations had been created by this time, most notably the San Francisco AIDS Foundation (SFAF) in the United States of America (US) and the Terrence Higgins Trust in the United Kingdom (UK) (Avert, 2022c: 3). AIDS was detected in the female partners of men with the condition in January 1983, showing that it may be transferred via heterosexual intercourse (Avert 2022c: 3).

By September 1983, the CDC had identified all key transmission pathways and had ruled out transmission by casual contact, food, drink, air, or surfaces (Avert, 2022c: 3). Furthermore, the CDC produced its first set of suggested protections for healthcare workers and allied health professionals to prevent "AIDS transmission" (Avert, 2022c: 3). In October 1984, bathhouses and private sex clubs in San Francisco were closed due to high-risk sexual practices. New York and Los Angeles quickly followed suit (WHO, 2022: 1). By the end of 1984, there had been 7,699 AIDS cases and 3,665 AIDS deaths in the United States, with 762 cases documented in Europe (Avert, 2022c: 3). As concerns about HTLV-III/LAV grew, the first needle and syringe programme were developed in Amsterdam, the Netherlands (Avert, 2022c: 3).

In March 1985, the Food and Drug Administration (FDA) of the United States authorised the first commercial blood test, ELISA, to detect antibodies to the virus. In the United States, blood banks began checking the blood supply (Avert, 2022c: 3). The Department of Health and Human Services of the United States (HHS) and the WHO convened the inaugural International AIDS Conference in Atlanta, Georgia, in April (WHO ,2022: 1). Ryan White, a young man from Indiana, USA, who caught AIDS via contaminated blood supplies used to treat his haemophilia, was denied the right to attend school (WHO, 2022: 2). Actor Rock Hudson died of AIDS in October 1985, becoming the first high-profile victim. Rock Hudson left a $250,000 bequest to the American Foundation for AIDS Research (amfAR) (Avert, 2022c: 3). The US Public Health Service issued the first guidelines for preventing virus transmission from mother to child in December (Avert, 2022c: 3).

By the end of 1985, every region in the world had reported at least one incidence of AIDS, totalling 20,303 people (WHO, 2022: 3). In May 1986, the International Committee on Virus Taxonomy declared that the AIDS virus should be recognised as HIV (human immunodeficiency virus) rather than HTLV-III/LAV (Avert, 2022c: 3). By the end of the year, the WHO had received reports of 38,401 AIDS cases from 85 countries. Asia had 84, Europe had 3,858, and Oceania had 395. Africa had 2,323, the Americas had 31,741, Asia had 84, Europe had 3,858, and Oceania had 395 (Avert, 2022c: 3).

In February 1987, the WHO launched the Global AIDS Programme to raise awareness, develop evidence-based policies, provide technical and financial assistance to countries, conduct research, encourage non-governmental organisations to participate, and advocate for the rights of HIV-positive people (Avert, 2022c: 3). In March, the FDA approved the first antiretroviral drug, zidovudine (AZT), as an HIV treatment. The FDA authorised the western blot blood test kit in April, which is a more specific HIV antibody test (Avert, 2022c: 3). In July, the WHO stated that HIV might be transmitted from mother to child during nursing. AIDS was the first disease to be debated in the United Nations (UN) General Assembly. The WHO had received reports of 71,751 AIDS cases by December, including 47,022 in the United States. According to the WHO, 5-10 million people worldwide are infected with HIV (Avert, 2022c: 3).

On the 1st of December 1988, the WHO declared the first 'World AIDS Day'. The groundwork was laid for developing a national HIV and AIDS care system in the United States, which the Ryan White CARE Act eventually endorsed; 142,000 AIDS cases were reported in 145 countries in March 1989. On the other hand, the WHO estimated up to 400,000 patients worldwide. The Centres for Disease Control and Prevention (CDC) announced the first guidelines for Averting PCP, an opportunistic infection that was a primary cause of death in AIDS patients, in June (Avert, 2022c: 3). Ryan White died on April 8, 1990, at the age of 18 from an AIDS-related sickness.

In June, the 6th International AIDS Conference was held in San Francisco, where the United States immigration policy was protested against for its prohibition of HIV-positive people from entering the US. The conference was boycotted by non-governmental organisations (NGOs). The Americans with Disabilities Act (ADA), which prohibits discrimination against individuals with disabilities, including HIV-positive people, was passed in the United States in July. In October, the FDA approved zidovudine (AZT) for treating children with AIDS.

By the end of 1990, about 307,000 AIDS cases had been officially reported, with the actual figure estimated to be closer to a million. It was projected that 8-10 million people worldwide were infected with HIV (Avert, 2022c: 3). In 1991, the Red Ribbon Project was founded by the Visual AIDS Artists Caucus to create a sign of compassion for HIV-positive people and their caregivers. The red ribbon has become a global symbol of AIDS awareness. On November 7, professional basketball star Earvin (Magic) Johnson disclosed his HIV diagnosis and retirement to educate young people about the illness. This declaration helped remove the notion of HIV as a 'gay' sickness, which is still commonly believed in the United States and abroad. Freddie Mercury, lead singer of the rock band Queen, disclosed he had AIDS a few weeks later and died a day later.

The 1992 International AIDS Conference, which was supposed to occur in Boston, USA, was rescheduled to Amsterdam due to US immigration policies against HIV (Avert, 2022c: 3). Tennis legend Arthur Ashe stated that he contracted HIV due to a blood transfusion in 1983. The FDA approved a 10-minute HIV-1 testing kit for healthcare practitioners in May. In March 1993, the United States Congress overwhelmingly approved prohibiting those living with HIV from entering the nation. The CDC expanded the list of AIDS signs to include pulmonary TB, recurrent pneumonia, and invasive cervical cancer. The virus was suspected of infecting around 700,000 individuals in Asia and the Pacific. An estimated 2.5 million people were infected with AIDS worldwide by 1993 (Avert, 2022c: 3).

In August 1994, the United States Public Health Service advised on the use of AZT to prevent HIV transmission from mother to child. The FDA authorised an oral HIV test in December's first non-blood HIV test. In addition, the FDA approved the first protease inhibitor in June 1995, ushering in a new age of highly active antiretroviral therapy (HAART). Once used in clinical practice, HAART resulted in an immediate reduction of 60 to 80 % in rates of AIDS-related mortality and hospitalisation in nations that could afford it. However, there were an estimated 4.7 million new HIV infections by the end of the year, including 2.5 million in Southeast Asia and 1.9 million in Sub-Saharan Africa (Avert, 2022c: 3).

The United Nations Joint Programme on AIDS (UNAIDS) was established in 1996 to advocate for global action on the pandemic and coordinate the UN response to HIV and AIDS. The 11th International AIDS Conference in Vancouver emphasised the efficacy of HAART, ushering in a moment of hope. The FDA authorised the first HIV home testing kit, a viral load test to determine the amount of HIV in the blood, the first

NNRTI medicine (Nevirapine), and the first HIV urine test. Nevertheless, there have been new HIV infections in Eastern Europe, the former Soviet Union, India, Vietnam, Cambodia, and China, among other places. By the end of 1996, the projected number of HIV-positive persons was 23 million (Avert, 2022c: 3).

The FDA authorised Combivir, a combination of two antiretroviral medications taken as a single daily pill, in September 1997, making it more straightforward for patients with HIV to take their medication. UNAIDS projected those thirty million individuals globally have HIV, amounting to 16,000 new infections per day. In addition, the WHO declared AIDS the fourth leading cause of mortality globally and the leading cause of death in Africa in 1999. Since the pandemic's beginning, an estimated thirty-three million individuals have been infected with HIV, and fourteen million have died because of the disease (Avert, 2022c:3).

In November 2011, the WHO held the first meeting to review the global AIDS situation, and international surveillance began (Avert, 2022c: 3). AIDS patients in the United States have risen to 3,064; 1,292 of these cases have died (Avert, 2022c: 3). Furthermore, in April 1984, the National Cancer Institute announced that they had uncovered the cause of AIDS, the retrovirus HTLV-III. In partnership with the Pasteur Institute, they alluded that LAV and HTLV-III are identical and that they are the likely cause of AIDS (Avert, 2022c: 3). A blood test was developed to check for the virus with the hopes of creating a vaccine within two years (WHO, 2022: 2). Averting injecting drugs and sharing needles, according to the CDC, could also be effective in preventing virus transmission (WHO, 2022: 2).

According to WHO (2022: 1), the human immunodeficiency virus (HIV) attacks the immune system, weakening people's defences against numerous illnesses and several forms of cancer that individuals with healthy immune systems can resist. People who are infected develop immunodeficiency because the virus kills and inhibits the function of immune cells. Therefore, the CD4 cell count is often used to assess immune function (WHO, 2022: 1). The most advanced stage of HIV infection is acquired immunodeficiency syndrome (AIDS), which can take several years to develop the individual. The development of certain malignancies, infections, or other long-term severe clinical signs of AIDS defines the disease (WHO, 2022: 1).

In May 2021, researchers at the Pasteur Institute in France reported the discovery of Lymphadenopathy-Associated Virus (or LAV), a new retrovirus that may cause AIDS (Avert, 2022c: 3). The first cases of AIDS in new-borns in June showed that it might

be spread by accidental contact, but this was eventually ruled out. Instead, it was found that they most likely contracted AIDS from their mothers before, during, or shortly after birth (Avert, 2022c: 3).

### 2.3.1 History of HIV and AIDS in Nigeria

Two cases of AIDS were identified in 1985 and reported in 1986 in Lagos State, southwestern Nigeria, according to Awofala and Ogundele (2016: 3). Two female sex workers from different West African nations were infected. The announcement of the first instances of HIV infection shook the country, as it was viewed as a sickness brought from America to discourage sex, with one meaning of AIDS that arose being 'American Idea for Discouragement of Sex' (Awofala & Ogundele, 2016: 4). Awofala and Ogundele (2016: 3) found that adults over 15 were the most impacted, but HIV-infected youngsters increased significantly in 2014. Intercourse workers, men who have sex with males, and drug users who use tainted injections are now the most vulnerable. Nigeria is divided into 36 states and Abuja's Federal Capital Territory (FCT) (Bashorun et al., 2014: 3).

Geographically, seven states were the most afflicted, with more than 8% prevalence incidence. They include Gombe, Plateau, Benue, Nasarawa, Cross Rivers, Akwa-Ibom, and the FCT, with Benue having the highest rate of HIV infection (13.5%). Ekiti, Kebbi, Katsina, Jigawa, and Bauchi states were the least impacted, with Kebbi, Ekiti, and Jigawa having the lowest prevalence rates of less than 2.0% (Bashorun et al., 2014: 4). As HIV continues to be a concern in Nigeria, some laws and policies have been put to guide the response to HIV and AIDS (Bashorun et al., 2014:3). These policies include the national HIV and AIDS policy, which was enacted in 2009 to direct key agencies in preventing the spread of HIV and providing treatment, care, and support to people who are infected or afflicted. Other rules include every Nigerian's freedom to live without prejudice as a fundamental human right.

### 2.3.2 Signs and Symptoms

Depending on the stage of infection, the symptoms of HIV differ. Although persons living with HIV are most contagious in the first few months following infection, many remain ignorant of their status until it is too late. People may have no symptoms or an influenza-like illness in the first few weeks after infection, including fever, headache, rash, or sore throat (WHO, 2022: 1). As the infection impairs the immune system, people may have various symptoms such as enlarged lymph nodes, weight loss, fever,

diarrhoea, and cough. In addition, they may also acquire serious diseases such as tuberculosis (TB) and cryptococcal meningitis; if they do not receive treatment, they could develop severe bacterial infections and malignancies such as lymphomas and Kaposi's sarcoma (WHO, 2022: 1).

### 2.3.3 HIV and AIDS Diagnosis Method in Nigeria

HIV is diagnosed in a laboratory by establishing the presence of viral antigens and host antibodies in the blood using an enzyme-linked immunosorbent test (ELISA) (Federal Ministry of Health Nigeria, 2016: 4). Positive ELISA results are validated in high-income nations by a second ELISA and a Western blot test (Federal Ministry of Health Nigeria, 2016: 4). However, such a method is not cost-effective in low-resource, high-HIV prevalence environments with a high pre-test probability. Therefore, rapid point-of-care or ELISA tests without a Western blot are utilised in a diagnostic algorithm in Nigeria (Federal Ministry of Health Nigeria, 2016: 4). A positive fast or ELISA test is followed by a second rapid or ELISA test using a different test kit to confirm. In contrast, a single negative test needs no more testing (Federal Ministry of Health Nigeria, 2016: 4).

### 2.3.4 How HIV and AIDS are transmitted

HIV infection occurs when specific body fluids that are contaminated with the virus enter the infected person’s circulation directly or come into touch with damaged tissue or the mucous membranes of your rectum, vagina, penis opening, or mouth, according to WHO (2022: 3). Fluids that can transmit HIV include:

- Blood.
- Semen ("cum").
- Pre-seminal fluid ("pre-cum").
- Rectal fluids.
- Vaginal fluids and
- Breast milk.

Though less common, the virus can also be transmitted by means of the following:

- An infected woman transmits the virus to her baby through pregnancy, delivery, or nursing.
- Oral intercourse, mainly if it includes ejaculation in the mouth.

- Infected blood from mouth sores and bleeding gums, such as via "deep" open-mouth kissing, skin-breaking biting, and consuming food prechewed by an HIV-positive individual.
- HIV-infected needles and other devices penetrate the skin, particularly needle-stick injuries in the medical context; and
- Transfusions of blood and clotting factors and organ and tissue transplants (this is primarily an issue outside the United States).

HIV is not pass on by saliva, sweat, or tears, nor through social contact (hugging or shaking hands) with an infected person. Therefore, it is conceivable that incorrectly sterilised tattoo or piercing equipment may transfer the virus. However, according to the CDC, there are no known examples of someone catching HIV this way in the United States (WHO, 2022: 3).

**2.3.5 Risk Factors**

According to WHO (2022: 1), the following behaviours and conditions increase the risk of contracting HIV:

- Having unprotected anal or vaginal sex.
- Having another STI such as syphilis, herpes, chlamydia, gonorrhoea, or bacterial vaginosis.
- When injecting drugs, do not share contaminated needles, syringes, or other injecting equipment or drug solutions receiving dangerous injections or Sharing needles and other equipment for injecting drugs; and
- They were having sex in exchange for drugs or money.

**2.3.6 Prevention of HIV**

According to WHO, individuals may reduce their risk of HIV infection by limiting their exposure to risk factors (2022: 1). You can employ abstinence (not having sex), never sharing needles, and use condoms correctly every time you have sex. HIV preventive medications such as pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP) may also be available to you (Huynh & Gulick, 2022: 3). Condom use by both Male and females, HIV and AIDS testing and counselling, use of antiretroviral drugs (ARVs) for prevention, harm reduction for people who inject and use drugs and eliminating HIV mother-to-child transmission is vital approaches for HIV and AIDS prevention that are frequently used in combination.

## 2.4 GLOBAL PREVALENCE OF HIV AND AIDS

People's health and well-being are significant because they represent individuals, local communities, and the nation's current health condition and predict future generations' health (Health, 2022: 12). HIV and AIDS are more prevalent in developing countries, which might be attributed to economic, social, and cultural reasons and gender inequities and poverty. In underdeveloped nations, the transmission rate varies from 25 to 45%, whereas, in industrialised countries, the rate ranges from 15 to 25%. In 2012, women accounted for roughly 52% of HIV and AIDS patients in nations with only low- and middle-income capacities (Avert, 2017: 10).

HIV and AIDS are severe worldwide public health problems. In 2020, 37.7 million people (including 1.7 million children) were estimated to be living with HIV and AIDS, with a global HIV and AIDS prevalence of 0.7% of adults. Approximately 16% of these persons (6.1 million) are ignorant that they are infected with the virus (Avert, 2022a: 1). 79.3 million individuals have been infected with HIV since the pandemic, and 36.3 million have died from AIDS-related diseases. In 2020, 680,000 individuals died because of AIDS-related illnesses. This statistic has fallen by almost 64% between its high of 1.9 million in 2004 and 1.3 million in 2010 (Avert, 2022: 1). Most HIV-positive persons reside in low- and middle-income nations. With a total of 20.6 million HIV-positive persons and 670,000 new HIV infections projected in 2020, East and Southern Africa remain the world's most HIV-affected regions (Avert, 2022: 2). With about one in every twenty-five individuals (3.6%) living with HIV, Africa continues to be the most populous and most seriously afflicted continent, accounting for more than two-thirds of all HIV patients globally.

HIV, the virus that causes AIDS, has emerged as one of the world's most critical health and development challenges since the first cases were identified in 1981. Since the pandemic, over seventy-six million individuals have been infected with HIV and AIDS (Avert, 2022a: 3). There are approximately 38 million people who are living with HIV and AIDS today. Tens of millions have died due to AIDS-related diseases since the epidemic's start (Avert, 2022a: 2). Major worldwide initiatives to address the condition have been started during the past two decades, and substantial progress has been achieved. The number of persons infected with HIV for the first time, especially among youngsters, has declined. The number of people with HIV undergoing treatment climbed to 25.4 million in 2019 (Avert, 2022a: 3)

Furthermore, HIV control efforts are becoming more challenging because of unsolved difficulties. Many HIV-positive persons at risk of developing the infection do not have access to prevention, treatment, or care, and there is no cure. Those in their prime working years are disproportionately affected by HIV. It influences people's health and the development and economic growth of families, communities, and countries. Many nations most affected by HIV deal with other infectious illnesses, food shortages, and other global health and development concerns. Furthermore, as COVID-19 spreads worldwide, its detrimental impacts on HIV and AIDS response in low- and middle-income countries, such as interruptions in access to antiretroviral drugs and preventative programmes, have already been noted (Avert, 2022a: 3). While the extent of COVID-19's effect on HIV care and progress is unclear, such interruptions are projected to result in a significant increase in HIV-related mortality (Avert, 2022a: 2).

### 2.4.1 Development of New Infections

In 2020, there were around 1.5 million new HIV infections. (Avert, 2022a: 2) Since 2010, global new HIV infections have reduced by 31%, from 2.1 million to 2.1 million. However, the incidence of new HIV infections among children has grown dramatically since 2010, falling from 320,000 in 2010 to 150,000 in 2020, a 53% increase (Avert, 2022: 4). Much more can be done to raise HIV awareness and testing among adolescents and young people (Avert, 2022a: 2). In 2019, 65% of new adult HIV infections globally occurred among major impacted groups and their partners, such as sex workers, drug users, prisons, transgender individuals, homosexual men, and other males who have sex with men. These groups accounted for 93% of new HIV infections outside Sub-Saharan Africa, whereas Sub-Saharan Africa accounted for 39% of new HIV infections:

- Injecting drug users are 35 times more likely to develop HIV and AIDS.
- The number of transgender women has increased 34-fold.
- The rate is 26 times greater for sex workers; and
- Gay males and other guys who have sex with men have a 25-fold increase.

In Eastern Europe and Central Asia, 91% of new HIV infections occur; in the Middle East and North Africa, 95% of new HIV infections occur. Western and Central Europe, as well as North America, account for 96% of new HIV infections; Asia and the Pacific account for 94% of new HIV infections; Latin America accounts for 92% of new HIV infections; West and Central Africa accounts for 72% of new HIV infections; the Caribbean accounts for 68% of new HIV infections; and the United States accounts

for 32% of new HIV infections (Avert, 2022a:2). Young women (aged 15-24years) are particularly susceptible, with around 5,000 new infections developing in this age range each week. Despite constituting just 10% of the population, teenage girls and young women (aged 15 to 24 years) would account for 25% of HIV infections in Sub-Saharan Africa by 2020 (Avert, 2022a: 2). Furthermore, almost one-third (35%) of women globally have suffered physical or sexual assault at some time in their lives. Women who have suffered violence in specific locations are 1.5 times more likely to get infected with HIV (Avert, 2022a: 1).

### 2.4.2 Latest Global Estimates

Global prevalence among adults (the proportion of those aged 15 to 49 infected) has been steady at 0.7% since 2001 (KFF, 2022: 1). In 2019, 38 million individuals lived with HIV (see Table 1), up from 30.7 million in 2010, owing to new infections and longer durations of HIV infection. In 2018, 36.2 million adults lived with HIV, including 1.8 million children under 15 years (KFF, 2022: 2). Although HIV testing capacity has risen over time, enabling more individuals to discover their HIV status, one in every five HIV patients (19%) is still ignorant that they are infected (KFF, 2022: 1).

Despite considerable decreases in new infections since the mid-1990s, around 1.7 million new infections occurred in 2019, or 5,000 new infections every day. Furthermore, recent statistics suggest that it has been inconsistent within and between nations, although progress has been achieved. Moreover, the rate of decrease differs by age group, gender, and geography (KFF, 2022: 2). HIV and AIDS remain a top cause of mortality globally and the leading cause of death among reproductive-age women. On the other hand, AIDS-related mortality has reduced as antiretroviral medication has been more widely available (ART). AIDS killed 690,000 people in 2019, a 37% decline from 1.1 million in 2010 and a 59% decrease from the high of 1.7 million in 2004 (KFF, 2022: 2). On June 30, 2021, 28.2 million individuals received antiretroviral medication (UNAIDS, 2022: 2).

According to UNAIDS (2022), 37.7 million [30.2 million–45.1 million] individuals worldwide were living with HIV in 2020. According to UNAIDS (2022), 1.5 million [1.0 million–2.0 million] new HIV infections were predicted to occur in 2020. According to UNAIDS (2022), 680 000 [480 000–1.0 million] persons died from AIDS-related diseases in 2020. According to UNAIDS (2022), 79.3 million [55.9 million–110 million] persons have gotten infected with HIV since the pandemic began. Since the

pandemic's beginning, 36.3 million [27.2 million–47.8 million] individuals have died from AIDS-related diseases (UNAIDS, 2022: 2).

The new figures released by NACA separate HIV and AIDS prevalence by state, revealing that the virus is more prevalent in particular parts of the nation. The country's South-South region has the highest HIV and AIDS prevalence, at 3.1% among persons aged 15–49. HIV and AIDS prevalence is exceptionally high (2.0%) in the North Central, and Southeast zones (1.9%). HIV and AIDS prevalence is lower in the southwest (1.1%), northeast (1.1%), and northwest (0.6%) zones (NACA 2022:3). According to NACA (2022: 3), Ogun has a 1.6% prevalence rate, putting the state in the South-West. Other states with high HIV and AIDS prevalence rates include Lagos (1.4%), Ondo (1.1%), Oyo (0.9%), and Osun (0.9%). (NACA, 2022: 3).

### 2.4.3 Global Affected Areas

In the global context, Sub-Saharan Africa is the most HIV-affected region, accounting for more than two-thirds of all HIV patients worldwide (KFF 2022:1). The Sub-Saharan region is then followed by the Asia and Pacific regions respectively. Furthermore, the Caribbean, Eastern Europe, and Central Asia have significantly suffered (KFF 2022:1). Table 2.1 below is a diagrammatic representation of the HIV prevalence rates globally, Including the WHO coverage regions.

**Table 2.1: Snapshot of Global Epidemic by Region**

| Regions | Prevalence in Adults | Number Of People Living with HIV (% of Global Total) | Number Of People Newly Infected with HIV | Number Of AIDS-Related Deaths |
|---|---|---|---|---|
| Global Total | 0.7% | 38million (100%) | 1.7million | 690,000 |
| Eastern and Southern Africa | 6.7% | 20.7 million (54%) | 730,000 | 300,000 |
| Western and Central Africa | 1.4% | 4.9 million (13%) | 240,000 | 140,000 |
| Asia and the Pacific | 0.2% | 5.8 million (15%) | 300,000 | 160,000 |
| Western and Central Europe and North America | 0.2% | 2.2 million (6%) | 65,000 | 12,000 |
| Latin America | 0.4% | 2.1 million (6%) | 120,000 | 37,000 |
| Eastern Europe and Central Asia | 0.9% | 1.7 million (4%) | 170,000 | 35,000 |
| The Caribbean | 1.1% | 330,000 (<1%) | 13,000 | 6,900 |

| The Middle East and North Africa | <0.1% | 240,000 (<1%) | 20,000 | 8,000 |
|---|---|---|---|---|

Source: UNAIDS, 2020.

#### 2.4.3.1 Eastern and Southern Africa

Eastern and Southern Africa are home to an estimated 20.7 million HIV-positive persons, accounting for more than half (54%) of all HIV-positive people globally. Furthermore, two-thirds of HIV-positive children live in this area (67%). Despite the significant effect, new infections in the area have dropped by 38% since 2010. Almost all the region's nations have generalised HIV epidemics, implying that their national HIV prevalence is more than 1%. South Africa has the most significant HIV-positive persons globally (7.5 million). Eswatini (formerly known as Swaziland) has the world's highest prevalence (27%) (KFF, 2022: 2).

#### 2.4.3.2 Western and Central Africa

HIV infects 4.9 million persons in Western and Central Africa. Between 2010 and 2019, new HIV infections among adults declined by 25%. However, women and girls account for 58% of the region's expected 240,000 new HIV infections. Another concern affecting the area is the decrease in antiretroviral medication coverage for pregnant women (from 62% in 2016 to 58% in 2017) in 2019 (KFF, 2022: 2).

#### 2.4.3.3 Asia and the Pacific

HIV infects 5.8 million persons in Asia and the Pacific. Since 2010, the number of new HIV infections in the area has declined by 13%. However, trends vary by nation, and the drop across the region may hide rises in certain countries. The site also includes China and India's two most populous nations; therefore, even low incidence equates to a massive population (KFF, 2022: 3).

#### 2.4.3.4 Western and Central Europe and North America

An estimated 2.2 million persons in this area are HIV-positive. As a result, strong ART coverage is crucial to lowering AIDS-related fatalities in the area; AIDS-related deaths have dropped by 40% since 2010. Furthermore, four out of every five persons living with HIV (81%) are on treatment, and two out of every three (67%) are virally suppressed (KFF, 2022: 2). Meanwhile, Latin America has an estimated 2.1 million persons who are HIV-infected. Between 2010 and 2019, new HIV infections climbed

by 21%, while AIDS-related fatalities fell by 8% in the area. Despite having the highest number of persons infected by the illness (920,000), Brazil accounted for the 40% of new HIV infections in Latin America in 2019 (KFF, 2022: 3).

#### 2.4.3.5 Eastern Europe and Central Asia

HIV affects an estimated 1.7 million individuals, with 170,000 new infections in 2019. Between 2010 and 2019, new HIV infections climbed by 72% in the area, while AIDS-related fatalities increased by 24 %. Most new infections (99%) occur among critical groups and their sexual partners in the region, with injecting drug users accounting for 48% of all infections (KFF, 2022: 2).

#### 2.4.3.6 The Caribbean

An estimated 330,000 persons in the Caribbean are HIV-positive. Since 2010, HIV patients' treatment has doubled (from 68,000 in 2010 to approximately 210,000 in 2019). However, the region's proportion of HIV-positive persons with suppressed viral levels (50%) is lower than the worldwide average (59%) (KFF, 2022: 3).

#### 2.4.3.7 The Middle East and North Africa

HIV infects 240,000 persons in the Middle East and North Africa. New infections grew by 25% between 2010 and 2019, whereas AIDS-related fatalities remained steady. Furthermore, treatment coverage among HIV-positive persons in this area is 38%, the lowest of any region (KFF, 2022: 2).

### 2.4.4 Global Affected Vulnerable Populations

Although risk factors vary, most HIV infections are transmitted heterosexually. Males who have sex with men, persons who inject drugs, sex workers, transgender people, and prisoners, for example, are disproportionately impacted by HIV in several countries (KFF, 2022: 3). Women account for more than half (55%) of all people (15-49 years) living with HIV globally, and HIV (together with pregnancy-related problems) is the primary cause of mortality among reproductive-age women. Gender inequality, inequities in access to resources, and sexual assault render women more vulnerable to HIV, especially younger women, who are naturally more susceptible to HIV (KFF, 2022: 1). Young individuals between 15 and 24 account for around one-third of new HIV infections, disproportionately impacting young women. In 2019, young women

aged 15 to 24 accounted for 19% of new HIV infections among individuals aged 15 and older in Sub-Saharan Africa (KFF, 2022: 1).

In 2019, about 95,000 AIDS-related deaths and about 150,000 new infections among youngsters, accounting for the world's 1.8 million HIV-positive youngsters. However, there has been a 52% decline in new HIV infections among youngsters since 2010 (KFF, 2022: 1). UNAIDS established ambitions to eliminate the AIDS pandemic by 2030 on World AIDS Day 2014. Countries have been working toward the interim "90-90-90" objectives of 90% of people living with HIV being aware of their HIV status, 90% of people on treatment being aware of their HIV status, and 90% of people on treatment having suppressed viral levels by 2020 (KFF, 2022: 2).

However, advances were uneven in certain nations and areas, and these objectives were not attained. According to the most current available data and trends, 81% of those living with HIV were aware of their status; 82% of those familiar with their situation were getting treatment; 88% of those receiving treatment were virally suppressed (KFF, 2022: 2). The objective is now to reach the 95% of individuals living with HIV who are aware of their HIV status, the 95% of people on treatment who are aware of their HIV positive status, and the 95% of people on treatment who have suppressed viral levels. Additional intermediate objectives for 2025 have also been set, focusing on societal factors and social services to combat HIV inequities (KFF, 2022:1).

## 2.5 GLOBAL ELIMINATION STRATEGIES OF HIV AND AIDS

The international community has pledged to eradicate HIV by 2015. The approach for accomplishing this objective is defined in a 2011 plan agreed by the WHO and UNICEF, which aims to eradicate new HIV infections among individuals by 2015 while also assisting in the survival of their mothers (WHO, 2012: 8). This strategy focuses on low- and middle-income nations, emphasising HIV programmes to improve health outcomes. The purpose of eliminating HIV and AIDS transmission is to integrate into health programmes for sexual and reproductive health (WHO, 2010a: 14). This programme integration enables individuals to contact current healthcare institutions (Campion, 2018: 12). According to WHO (2006a: 8), incorporating HIV and AIDS programmes within existing healthcare facilities enhances access to excellent healthcare and early access to HIV and AIDS prevention programme services.

According to the President's Emergency AIDS Relief Plan (2022: 8), integrating HIV and AIDS programmes' health services, whether at the research, programme management, or service delivery levels, allows limited resources to be used to enable other programmes to enhance overall health outcomes. Integration also allows nations to take control of their programmes, increase access to HIV and AIDS care, and maintain schedules. NIH (2022: 15) contended that HIV and AIDS preventive and treatment measures would benefit everyone, regardless of HIV status. According to Duncombe, Ball, Passarelli, and Hirnschall (2018: 45), integration eliminates the stigma of repeated visits and encourages the utilisation of existing human resources. However, according to Zanolini et al. (2018: 14), although service integration is commonly acknowledged, little emphasis is placed on service quality. According to the authors, more study is required to investigate the advantages of combining HIV and AIDS care for site appropriateness and individual performance.

The strategies framework for halting HIV and AIDS transmission includes a vision, objectives, and targets. The goal is to keep people alive and HIV and AIDS-free while getting rid of HIV and AIDS infections and improving people's health. The goals are to boost global and national efforts to provide practical and comprehensive HIV and AIDS services. Another objective aims to enhance the quality of HIV and AIDS services and exhibit their impact on public health. It also intends to strengthen linkages to decrease overall HIV and AIDS mortality via collaboration among HIV-related services, reproductive health services, and health services (WHO, 2010a: 12). Similarly, Niazkhani et al. (2020: 23) intimate that most providers were unaware of current rules and standards, resulting in a lack of up-to-date information on their reach.

It was proposed that operational guidelines help implement HIV and AIDS packages. All stakeholders, including the Ministry of Health, must identify relevant solutions for their local environment (PEPFAR, 2011: 14). Frontline employees must be involved in developing policies that should be implemented. For example, even though WHO and UNICEF are responsible for boosting the creation of global HIV and AIDS policies, medical experts account for 90% of the professionals, with nursing specialists accounting for less than 1% (Davis, 2019: 23). Nurses account for 80% of the healthcare workforce (Davis, 2019: 10). Their lack of participation in healthcare research development organisations such as the WHO and UNICEF constitutes a severe research vacuum in the health system. WHO (2010a: 10) has advocated a four-fold HIV and AIDS research strategy that all healthcare sectors should adopt. Primary prevention is part of the WHO's comprehensive HIV and AIDS prevention strategies among persons of reproductive age. Another broad approach is to provide

proper treatment, support, and care to persons living with HIV and AIDS. These prongs target a distinct part of the issue, and it is here that nurses, with the correct tools and training, may make a substantial difference. For example, the first prong intends to decrease HIV and AIDS incidence in reproductive age groups in half by 2015 (WHO, 2012: 18) via services for reproductive health, including prenatal care and postpartum/natal care, as well as other health services and HIV services delivery points like community participation.

HIV and AIDS testing and counselling, regular re-testing for those who have been exposed, testing of partners, safer sexual activity; as well as dual safeguards (promotion of condoms), delayed initiation of sexual activity, and adjusting behaviou through measures that prevent high-risk behaviour are all crucial in attaining this aim (WHO, 2012b: 8). Nurses are leading the effort to delivering these services. They are also adequately placed to propose study topics and designs that addresses the gaps effectively. Additionally, registered nurses have also taken the lead in the worldwide response to the HIV and AIDS epidemic, understanding both the health aspirations of people living with HIV and AIDS and the complex needs of their families and other systems of support (International Centre for AIDS Care and Treatment Programmes (ICAP), 2018: 10). Without nurses, it would be impossible to produce an HIV-free generation. Without nurses, none of the Millennium Development Goals would be met" (ICAP 2018: 2).

Appropriate assistance and counselling for people living with HIV and AIDS enables their informed decision-making concerning their future reproductive lives, particularly preventing unwanted pregnancies (WHO, 2012: 2). HIV testing and advice are part of reproductive health and family planning services, as well as any prong-related activities (WHO, 2012b: 5). The WHO's third goal (2010a: 8) is to reduce HIV and AIDS transmission to less than 5% by 2015, and 90% of HIV-positive persons would be provided with antiretroviral prophylaxis or antiretroviral medication by 2015.

The WHO issued new HIV and AIDS prevention guidelines in July 2010, requiring HIV-positive individuals’ identification during testing and to begin antiretroviral therapy to prevent HIV transmission. All HIV-positive mothers' babies should get antiretroviral medicine and be nursed exclusively for breastfeeding for six months, with supplementary feedings continuing for up to a year. Mothers who are HIV-positive at any point throughout their pregnancy should undergo a cluster of differences four tests to ascertain if antiretroviral drugs are required for their own or their unborn child's health. If their differentiation 4-cluster counts are less than or equal to 350 cells/mm3,

they are considered regular antiretroviral therapy should be started. However, according to the current recommendations, all moms should take HIV prevention medicine to protect their infant(s) (Avert, 2017: 8). To prevent sickness, this drug regimen should be maintained and administered regularly. Breastfed babies should also be administered nevirapine once a day for six weeks. For the sake of her infant's health, a woman taking antiretroviral treatment should take a two-drug combination. Moreover, all children born to HIV-positive moms should receive the same treatment regimen as their mothers (Avert, 2017: 8).

In addition to reducing HIV transmission from mother to child and eliminating new HIV infections in children, HIV and AIDS packages provide many other advantages. They can also serve as entry points for improving primary reproductive and maternal. In addition, child health services are helpful in the acceleration of progress toward the 2015 health-related Millennium Development Goals (MDGs 4,5 and 6), which include halving rates of under-five mortality, halving maternal mortality rates, and eradicating HIV and AIDS (WHO, 2010a: 11). Nurses' ought to be involved actively in overall health design for enhancing implementation and recognise that they are leaders who have a long-term engagement with patients and families to reap the advantages of these packages (WHO, 2010a: 11).

## 2.6 PRINCIPLES TO REDUCE TRANSMISSION OF HIV AND AIDS

UNAIDS (2011a: 2) created four sets of guiding concepts to prevent new HIV and AIDS infections among persons, in addition to WHO's the four-pronged approach. According to WHO guidelines from 2010, these sets put people living with HIV and AIDS at the centre of the response and provide the best possible healthcare. The option for national ownership and leveraging synergies, links, and integration for greater sustainability provides shared duty and clear accountability. Accordingly, people living with HIV and AIDS should be at the centre of all government prevention efforts to prevent new HIV and AIDS infections. These programmes should guarantee that individuals have access to the most effective prevention and treatment regimens for HIV and AIDS based on the most recent guidelines (UNAIDS, 2011a: 2). Overall, focused policies, strong leadership from governments and civil society, and involving individuals living with HIV was critical in maintaining Africa's gains and attaining global development objectives (Martin, 2017: 2).

Furthermore, persons with HIV and AIDS should have family planning services to overcome service barriers and collaborate in care delivery. These programmes should

also encourage male participation and assistance in all elements of these initiatives, as well as HIV and gender discrimination, both of which restrict service access, uptake, and client retention (UNAIDS, 2011a:9). The male engagement has been identified as a significant impediment to HIV and AIDS prevention programmes in most African countries (WHO, 2012b: 5). According to WHO, reducing new infections would need increasing use of condoms, long-term programmes to promote changes in sexual behaviour, cheap ways for averting infection in high-risk groups, and improved therapies for preventing HIV and AIDS transmissions (Martin, 2017: 3).

Secondly, country ownership refers to all stakeholders creating a national strategy to end new HIV and AIDS infections. These strategies can be found in the NACA strategies, which incorporate the 'Three Ones' principle in terms of which "at the national level, there is one national action framework, one national coordinating mechanism, and one monitoring and evaluation system" (UNAIDS, 2011a: 8). On the other hand, Obasanjo and Oduwole (2006: 4) questioned whether important stakeholders were appropriately represented in the committees that developed these national plans. According to UNAIDS (2011a: 8), In partnership with key stakeholders such as HIV and AIDS networks, the business sector, and civil society organisations, these plans ought to involve aspects such as priority setting, planning, progress tracking, and performance monitoring. Furthermore, all policies and initiatives must follow the 'Three Ones' principles of coordinated action.

Thirdly, leveraging sustainability synergies should be a critical component of all HIV and AIDS national strategies, with programmes like treatment being improved in local and national settings. HIV and AIDS programmes, for example, are integrated into all healthcare facilities in Nigeria, including healthcare facilities (Federal Government of Nigeria, 2010: 9). The National HIV/AIDS Strategy (2022–2025) lays out a road map for stakeholders throughout the country to follow to expedite efforts to end the HIV pandemic in the United States by 2030. The Strategy has ambitious goals for resolving the HIV pandemic in the United States by 2030, including a 75% decrease in new HIV infections by 2025 and a 90% reduction by 2030 (Holtgrave, Valdiserri, Kalichman, Del Rio & Thompson, 2020: 3). The strategy focuses on four aims to steer the country toward achieving the vision:

- Stop new HIV infections.
- Improve the health outcomes of persons living with HIV.
- Reduce HIV inequalities and health disparities; and

- Ensure that all partners and stakeholders are working together to combat the HIV pandemic in an integrated and coordinated manner.

To achieve its objectives, the participation of stakeholders was essential from all sectors of society in a more coordinated, re-energized national response to HIV (Holtgrave et al., 2020: 2). People living with or at risk of HIV, public health professionals, healthcare providers, people working in state, tribal, and local government, staff of faith- and community-based organisations, educators, researchers, and people leading and working in private industry are all part of this collaborative effort (Holtgrave et al., 2020: 2).

Fourthly, shared responsibility and accountability should be implemented as proposed by the UNAIDS (2012a: 7). Accordingly, everyone is responsible for preventing new HIV and AIDS infections and keeping people alive, from families to organisations, communities, and countries. People living with HIV and AIDS deserve healthcare tailored to their specific requirements (UNAIDS, 2012a: 7). To guarantee that all community members have access to HIV and AIDS testing and counselling services, communities must work together to eradicate the stigma and prejudice associated with HIV and AIDS (UNAIDS, 2012a: 8). Specific duties should be allocated to organisational partners for which they must be held responsible. Indicators must be developed to measure success (UNAIDS, 2012b: 5). The NACA, the national HIV and AIDS coordinating agency, delegates each sector's role in Nigeria. This organisation also maintains track of the progress and actions of each implementing role-payer (National Agency in Control of AIDS, 2010: 7).

In February 2000, the National Agency for the Control of AIDS (previously the National Action Committee on AIDS) was founded for the purpose of coordinating the numerous HIV/AIDS programmes in the nation (NACA, 2022: 1). NACA's mandates are to coordinate and maintain advocacy for HIV and AIDS expanded responses in Nigeria across all sectors and at all levels (NACA, 2022: 1). NACA also creates a framework for cooperation and support from all stakeholders in Nigeria for a multi-disciplinary and multi-sectoral response to HIV and AIDS. In this regard, NACA formulates all HIV and AIDS strategies in Nigeria for policy choices that should be developed and presented to the Presidential Council on AIDS (NACA, 2022: 1).

## 2.7 GLOBAL RESEARCH ON HIV AND AIDS

International organisations, governments, and countless legislators have made critical research decisions in response to the difficulties posed by HIV and AIDS. Chamla, Luo and Idele (2018: 5) define these policies as “those intended to lead or influence the actions, behaviours, or choices of others”, which encompasses health-related policies that guide the action course (or inaction) adopted by governments or healthcare organisations to attain the intended health result. The whole healthcare system is governed by these policies, including the public and commercial sectors and the political concerns (Mozaffarian, Angell, Lang & Rivera, 2018: 4). For example, UNAIDS (2011a: 5) organised a global task force of 30 governments, including representatives from the 22 priority countries with high HIV and AIDS prevalence, as well as 50 community organisations to draft a worldwide plan of action for macro research implementation (UNAIDS, 2011a: 6).

The group framed its visionary research statement on the premise that the rights of all women, especially pregnant women, are safeguarded, and they have the right to high-quality HIV and AIDS prevention and treatment for themselves and their children. These women, together with their communities and families, should be provided with the resources they need to care for their children’s health and themselves (UNAIDS, 2011a: 1). Accordingly, adequate human and financial resources should be accessible in a timely and predictable way from national and international sources, and the awareness that success is a joint or mutual responsibility. HIV, maternal and child health, infant and child health, and family planning programmes collaborate to provide high-quality results and enhance health outcomes (UNAIDS, 2011a: 1). Communities, especially women living with HIV and AIDS, are being taught and equipped to help women and their families access HIV and AIDS prevention, treatment, and care. National and international leaders promote country-led initiatives and are responsible for the results (UNAIDS, 2011a: 1). These policies contributed to creating the four-fold HIV and AIDS framework. They were inspired by sound scientific methods to deliver client-centred care that nurses may practice based on their personal experiences (Byrne, Baldwin & Harvey, 2020: 1).

## 2.8 HISTORY OF HIV AND AIDS IN NIGERIA

Two cases of HIV and AIDS were identified and reported in Lagos State, southwestern Nigeria, in 1985 (Awofala & Ogundele, 2016: 7). Two female sex workers from other

West African nations were also affected. The initial instances of HIV and AIDS infection spread dread, scepticism, and denial throughout the country since it was viewed as a sickness introduced from America to discourage sex, with one interpretation of AIDS emerging as ‘American Idea for Sex Discouragement’ (Awofala & Ogundele, 2016: 5). Adults over 15 were the most impacted. However, HIV and AIDS-infected youngsters climbed dramatically in 2014 (Awofala & Ogundele, 2016: 6). Intercourse workers are men who have sex with males. Drug users who use tainted injections are the most susceptible (Bashorun et al., 2014: 7).

Geographically, seven states were the most afflicted, with more than 8% prevalence rate. The greatest HIV and AIDS infection rates are in Gombe, Plateau, Benue, Nasarawa, Cross Rivers, Akwa-Ibom, and the FCT, with Benue having the highest prevalence of infection at 13.5%. Ekiti, Kebbi, Katsina, Jigawa, and Bauchi were the least impacted states, with Kebbi, Ekiti, and Jigawa having less than 2.0% affected (Bashorun et al., 2014: 7). As HIV and AIDS continue to be an issue in Nigeria, various laws and policies have been developed to govern the HIV and AIDS response (Global AIDS Response Country Progress Report, 2022: 8). For example, the national HIV and AIDS strategies were introduced in 2009 to direct key agencies to Avert the spread of HIV and AIDS and provide treatment, care, and support to individuals infected or impacted. Other laws safeguard every Nigerian’s fundamental human right to live free of prejudice (Kadiri, 2021: 5)

## 2.9 EPIDEMIOLOGY OF HIV AND AIDS IN NIGERIA

Compared to other Sub-Saharan African nations, the HIV and AIDS pandemic in this country is less severe (AHA, 2016: 7). Nevertheless, Nigeria has the second-highest HIV and AIDS prevalence in Sub-Saharan Africa (Arinze-Onyia, Modebe & Aguwa, 2016: 10). Nigeria also has the world’s third-highest HIV and AIDS frequency, after only India and South Africa (Ukaegbu et al., 2022: 8). HIV and AIDS prevalence in Nigeria was 1.8% in 1986, rising to 4.5% in 1996 and 5.4% in 1999, with young people of working age being the most affected (Arinze-Onyia, Modebe, & Aguwa, 2016: 8). However, HIV and AIDS prevalence fell to 5.0% in 2001, 4.4% in 2005, 4.6% in 2008, and 4.1% in 2010 (NACA, 2015: 12).

In 2016, the HIV and AIDS prevalence rate was about 3.2%, 0.9% lower than in 2010. Compared to prior years, the current prevalence of new infections is lacking. Despite this, more than 3 million people are still infected with HIV and AIDS, with over 200,000 new HIV and AIDS infections and 160,000 HIV and AIDS-related deaths yearly in

2016. Figure 2.1 overleaf provides a broader picture of the HIV and AIDS rates of prevalence during this period.

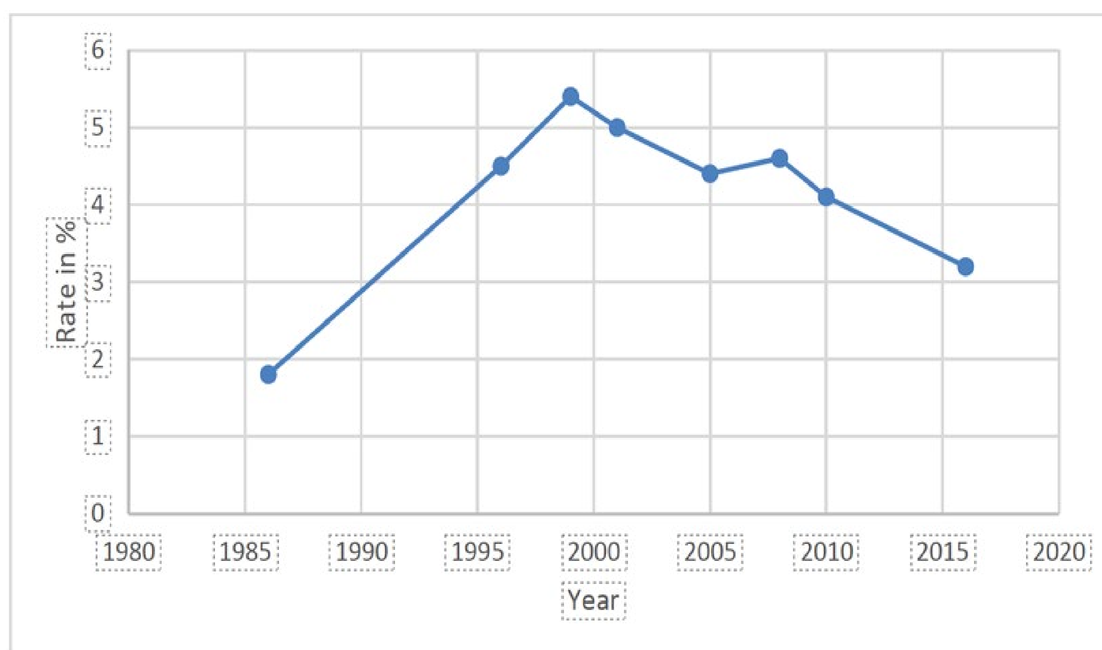



**Figure 2.1: The prevalence rate of HIV and AIDS in Nigeria**

The information gathered from Nigeria's surveillance system, which is the complete source of HIV and AIDS statistics, contained information collected regularly from different areas, states, cities, towns, and villages (Bashorun et al., 2014: 12). The data was primarily gathered from persons aged 15 to 49 registered in the country's prenatal care programme at different hospitals/maternity clinics (Federal Ministry of Health, 2014: 10). Due to a weak monitoring and evaluation system connecting the activities of the state and local HIV and AIDS records with the national register of people living with HIV and AIDS, the epidemiological review was unable to provide up-to-date information on the incidence and prevalence of newly infected patients (Awofala & Ogundele, 2016: 8). In Nigeria, a lack of appropriate information on the distribution of HIV and AIDS prevalence by area was exacerbated by the lack of a centralised data system that harmonises HIV and AIDS data at all levels.

Understanding HIV and AIDS in Nigeria requires cultural and religious beliefs and social conventions. As indicated earlier, HIV and AIDS was supposedly an American illness transmitted to Africans to discourage sex. This thinking may have exacerbated the misconception about HIV and AIDS. For cultural and religious reasons, sex is considered a private matter in Nigeria. In many other African countries, discussing sex with young people, especially girls, is not culturally acceptable (Ukaegbu et al., 2022: 8). Until they reach maturity, girls are regarded as less capable of appropriate sex judgments. Young people have the most significant incidence of HIV and AIDS due to

a lack of sex education and awareness, which leads to unsafe sexual behaviours (Ukaegbu et al., 2022: 10). Cultural and religious views, misunderstandings regarding HIV and AIDS transmission, and lack of sex education all contribute to the disease's impact on individuals, communities, and organisations, as detailed below.

## 2.10 HIV AND AIDS PREVALENCE IN NIGERIA

The first cases of HIV and AIDS in Nigeria were recorded in 1986, signalling the beginning of the country's epidemic (NACA, 2014: 11). Since 2003, there has been a gradual decrease of 5% in 2003, 4.4% in 2005, 4.6% in 2008, and 4.1% in 2010 (NACA, 2014: 11). According to the National HIV and AIDS and Reproductive Health Survey, the prevalence was 3.4% in 2012. Currently, 3.2% of persons aged 15 to 49 years are infected with HIV or AIDS (UNAIDS, 2014: 8). The incidence of HIV varies substantially among the country's six geopolitical zones. The incidence is most significant in the South-South Zone (5.5%), while it is lowest in the Southeast Zone (1.8%).

There is also a distinction between urban (3%) and rural (4%) regions (NACA, 2014: 8). The main drivers of Nigeria's HIV and AIDS epidemic, according to NACA (2022: 6), are low perceptions on personal risk, multiple sexual partners, transactional HIV and AIDS testing and intergenerational sex, ineffective and inefficient sexually transmitted disease services, and insufficient access and poor quality of healthcare services. Gender inequities and injustices, chronic poverty, and HIV and AIDS-related discrimination and stigma are factors in the virus's transmission (NACA, 2014: 12). According to studies on the transmission technique, regions of concentrated epidemics among the most vulnerable groups such as drug users, men who have sex with males, as well as female sex workers, female sex workers, are fed to the general population.

Nigeria is home to the world's second-worst HIV pandemic (Avert, 2022b: 1). Although the prevalence of HIV among adults in Nigeria is significantly lower (1.3%) than in other Sub-Saharan African nations such as South Africa (19%) and Zambia (11.5%), the country's enormous population implies that 1.8 million individuals were infected with HIV in 2019. Better monitoring has been attributed to recent decreases in the country's prevalence estimates (Avert, 2022b: 2). The UNAIDS alludes that Nigeria accounted for about two-thirds of new HIV infections in West and Central Africa in 2019. Approximately half of all new HIV infections in Sub-Saharan Africa, South Africa, and Uganda are traced back to the nation. Despite a 13% reduction in new infections

between 2010 and 2019 (Avert, 2022b: 2). Unprotected heterosexual intercourse accounts for 80% of new HIV infections in Nigeria, with most remaining HIV infections happening in high-risk groups such as sex workers (Avert, 2022b: 2):

- Nigeria has the world's second-largest HIV pandemic and one of Sub-Saharan Africa's highest rates of new HIV infections.
- Nigeria has the world's second-largest HIV pandemic and one of Sub-Saharan Africa's highest rates of new HIV infections.
- Low access to antiretroviral medication is a problem for persons living with HIV in Nigeria, resulting in many AIDS-related fatalities.
- Due to anti-homosexuality legislation, HIV services are challenging to get for males who have sex with men; and
- Nigeria also has the world's fourth-largest TB pandemic, with co-infection with HIV and tuberculosis becoming a significant worry for persons living with HIV.

Six Nigerian states (Kaduna, Akwa Ibom, Benue, Lagos, Oyo, and Kano) account for 41% of HIV-positive persons. At 5.5%, the southern states of Nigeria (known as the Sahel) have the highest HIV prevalence. The frequency is lowest in the southeast (the Southeast Zone), at 1.8%. Rural regions have a higher HIV rate (4%) than metropolitan areas (3%) (Avert, 2022b: 2). In Nigeria, around 45,000 individuals died in 2019 due to AIDS-related diseases; AIDS-related mortality has declined by 35% from 2010 to 2019, with 89 deaths occurring in 2019. In Nigeria, 85% of positive diagnoses receive antiretroviral medication (ART) (Avert, 2022b: 2).

According to the results released by the Government of Nigeria on the 14th of March 2019, the national HIV prevalence in Nigeria is 1.4% among adults aged 15–49 years. Previous estimates put the national HIV prevalence at 2.8%. According to UNAIDS and the National Agency for the Control of AIDS, there are 1.9 million HIV-positive persons in Nigeria (UNAIDS, 2022: 1).

Speaking in Abuja, Nigeria on the 14th of March 2019, President Muhammadu Buhari welcomed the news that the country has fewer people living with HIV than previously estimated and launched the Revised National HIV and AIDS Strategic Framework 2019–2021, which guided the country's future response to the epidemic. In addition, Nigeria has significantly expanded HIV treatment and prevention programmes (UNAIDS, 2022: 2). While the national HIV prevalence in Nigeria is 1.4% among persons aged 15–49 years, women are more than twice as likely as males to be infected (1.9% versus 0.9%). The disparity in HIV prevalence between men and women is the most significant among young people, with young women aged 20–24

years more than three times as likely as young males in the same age group to be infected.

According to the latest figures, HIV prevalence among children aged 0–14 is 0.2%. In recent years, significant efforts have been undertaken to prevent new HIV infections (UNAIDS, 2022: 1). At the national level, viral suppression among HIV-infected persons aged 15–49 is 42.3% (45.3% among women and 34.5% among men). When patients living with HIV are virally suppressed, they stay healthy, and the virus is not transmitted (UNAIDS 2022:2).

Improved awareness of the country's HIV pandemic would enable more efficient HIV response investments and more effective planning for HIV prevention, care, and treatment services, including focusing on priority groups such as female sex workers. In addition, such awareness would enable a population–location strategy to help the people and locations who need them the most (UNAIDS, 2022: 3).

The new figures separate HIV prevalence by state, revealing that the disease has a stronger effect in certain sections of the nation. The South-South region of the country has the highest HIV prevalence, at 3.1% among persons aged 15–49 years. HIV prevalence is particularly high (2.0%) in the North Central and Southeast zones (1.9%). HIV prevalence is lower in the South-West zone (1.1%), the North-East zone (1.1%), and the North-West zone (1.1%). (0.6%) (UNAIDS, 2022: 3).

With the introduction of a test-and-treat policy in 2016, Nigeria has made steady progress in boosting access to treatment for persons living with HIV. This step has sped up referring patients who test positive for the virus to treatment centres. As a result, between 2010 and 2017, the nation almost tripled the number of persons living with HIV who had access to antiretroviral medication, rising from 360,000 in 2010 to 1 (one) million in 2018. However, today's new figures show that more than half of HIV patients still do not have suppressed viral levels (UNAIDS, 2022: 4).

The new data is more accurate since it is based on a broader monitoring system and a revised methodology. The country's response to HIV has expanded significantly in recent years. The number of treatment locations has more than tripled, the number of programmes to prevent HIV transmission from mother to child has grown eightfold, and the number of HIV counselling and testing sites has increased fourfold. In 2016, 11.3 million individuals were counselled and tested for HIV, four times the number in 2012. All HIV-positive patients must get therapy and achieve viral suppression

(UNAIDS, 2022: 4). Figure 2.2 (overleaf) is a representation of the UNAIDS' 201 depiction of the HIV and AIDS rate of prevalence in Nigeria.

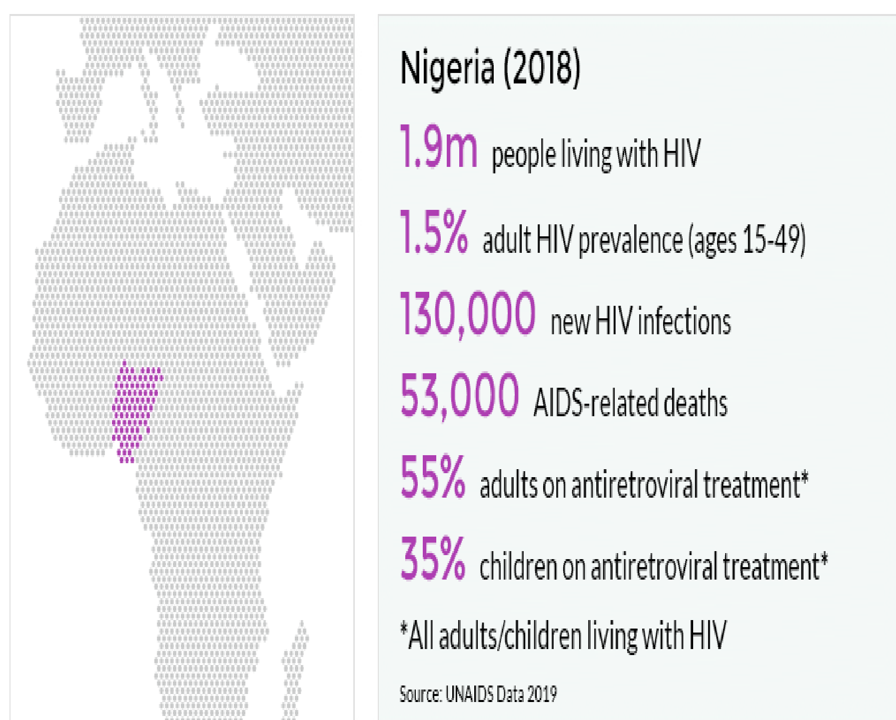



**Figure 2.2: HIV and AIDS prevalence in Nigeria by UNAIDS data: 2019**

## 2.11 NIGERIA'S POLICY ON HIV AND AIDS

The national response to the HIV and AIDS pandemic in Nigeria has persisted for two decades, emphasising the severity of the illness since 2002 (National AIDS Control Organization, 2008: 4). The Federal Ministry of Health developed the National AIDS and Sexually Transmitted Infections Control Programme in 1988, ushering in a more systematic approach to HIV and AIDS in the health system (Federal Government of Nigeria, 2010: 6). In 1999, a multi-sectoral response was begun, culminating in formation of the National Action Committee on HIV and AIDS, subsequently renamed the National Agency for the Control of AIDS in 2007.

These developments have aided Nigeria's national response, which operates under a unified framework known as the National Agency for the Control of AIDS (NACA), formerly known as the National Action Committee on HIV and AIDS, which was established to coordinate Nigeria's various HIV and AIDS activities. NACA's responsibilities included organising and maintaining HIV advocacy across all sectors and developing a framework to enhance the country's multi-disciplinary and multi-sectoral response to HIV and AIDS. NACA was also present at the HIV strategies launch. This organisation was also in charge of developing a strategic plan for Nigeria's HIV and AIDS response and organising, monitoring, and evaluating the

implementation of a national strategic plan for its management. Furthermore, the organisation approved measures for coordinating and supporting resource mobilisation for a long-term HIV AND AIDS response (NACA, 2022: 11).

Nigeria has approved the Revised National HIV and AIDS Strategic Framework 2019–2021, guiding the country's future HIV response. It comes on the heels of a recent poll suggesting that its HIV prevalence is 1.4%. Previously, it was thought that 2.8% of Nigerians were infected with HIV (UNAIDS, 2022: 2). The findings of the National HIV and AIDS Indicator and Impact Survey in Nigeria (NAISS) were announced on March 14 at a special ceremony in Abuja, Nigeria, attended by President Muhammadu Buhari of Nigeria and UNAIDS Executive Director Michel Sidibe. During his address, Mr Sidibe complimented the president's leadership in managing the country's response to the HIV pandemic. Nigeria has quadrupled the number of persons getting HIV treatment since 2010, and the government established a test-and-treat policy in 2016 (UNAIDS, 2022: 1). The study findings will lead to a better knowledge of the country's pandemic and more effective HIV prevention, care, and treatment plans. The findings will also enable the deployment of a population–location strategies to give services to individuals where they are most needed (UNAIDS, 2022:1).

During his three-day tour, Mr Sidibe met with Nigeria's Minister of Health, Isaac F. Adewole, to examine progress, gaps, and difficulties in the AIDS response. He also promised UNAIDS help with the new framework. This was further emphasised when Nigeria's Foreign Minister, Geoffrey Onyeama, and Mr Sidibe signed a new collaboration agreement to strengthen the UNAIDS' partnership with Nigeria (UNAIDS, 2022: 2). Mr Sidibe also visited with the president's wife, Aisha Buhari, to formalise and prolong her appointment as UNAIDS Special Ambassador for the elimination of Mother-to-Child HIV transmission and the promotion of treatment for HIV-Infected children in Nigeria (UNAIDS, 2022: 2). Mrs Buhari thanked UNAIDS for extending her mandate and reiterated her commitment to raising children's AIDS-free generation. "This would enable me to do even more to ensure that no kid in Nigeria is born with HIV," added Mrs Buhari (UNAIDS, 2022: 1).

The Nigerian Network of People Living with HIV and AIDS met with Mr Sidibe to shar" their concerns regarding its AIDS response gaps and issues. According to Abdulkadir Ibrahim, the network's national coordinator, services often fail to reach the most vulnerable members of society. He asked UNAIDS to help improve community responses to the HIV pandemic and ensure that HIV-positive individuals, especially

young people, were included in developing policies and programmes impacting their health and well-being (UNAIDS, 2022: 2).

The Nigerian HIV and AIDS strategy is based on the Global Plan to eliminate new HIV infections among Nigerians by 2015. (Joint United Nations Programme on HIV and AIDS, 2011). This strategy serves as the foundation for the development and implementation of national plans, and it includes a variety of HIV and AIDS prevention and treatment measures for infected patients, as well as essential maternal, including family planning, as an integral part of countries' efforts to achieve the Millennium Development Goals (MDGs). Nigerian's HIV and AIDS strategies were aligned to the four broad prongs and are as follows:

- Primary prevention of HIV and AIDS can be accomplished through early detection and treatment of sexually transmitted infections. Increased access to HIV testing and counselling services for women of childbearing age, regardless of HIV status.
- Unintended pregnancy prevention among HIV-positive women: providing easily accessible family planning and counselling services. promoting the use of condoms as well as other effective contraception methods (dual method) Promoting contraception during the postpartum period.
- Preventing HIV transmission from infected patients by offering HIV testing and counselling.
- Treatment, care, and support for HIV and AIDS patients: This was expected to be accomplished by providing retroviral antibiotics to infected patients with early HIV diagnostic testing.

### 2.11.1 National Agency for the Control of AIDS (NACA)

The National Agency for the Control of AIDS (NACA), known previously as the National Action Committee on AIDS, coordinated HIV and AIDS-related programmes in Nigeria. NACA's tasks included advocacy organisation and maintenance in all sectors by developing a framework that strengthened the country's multi-sectoral and multi-disciplinary reactions to HIV and AIDS. NACA also provided the Presidential AIDS Council with all HIV and AIDS strategies for policy alternatives. This organisation was also in charge of drafting a strategic plan for Nigeria's HIV and AIDS responses and coordinating, monitoring, and assessing controls for the national strategic plan. The group is also committed to coordinating and supporting resource mobilisation for

a long-term and successful HIV AND AIDS response (NACA, 2022: 8). NACA's sub-national counterparts are the State Action Committee on AIDS (SACA) and the Local Government Action Committee on AIDS (LACA) (NACA, 2022: 6). NACA's sub-national counterparts are the State Action Committee on AIDS (SACA) and the Local Government Action Committee on AIDS (LACA) (NACA, 2022: 6). AIDS committees at the state and municipal government levels were the sub-units analysed in this case study.

### 2.11.2 The National Strategic Framework

The National Council on Health created the National Strategic Framework for 2010-2015 via a collaborative effort. The framework's eight strategic emphasis areas are as follows:

- Health leadership and governance.
- Health service delivery.
- Health human resources.
- Health financing.
- National health management information system.
- Health partnerships.
- Community participation; and
- Health ownership and research.

According to the federal Minister of Health, the framework acts as a guide for federal, state, and local governments in choosing evidence-based treatments that would assist Nigerians in reaching the targeted health outcomes (El-Sadr et al., 2018: 6). By maximising the participation of all stakeholders at each level, the health leadership and governance framework provides policy orientations for health development. Service delivery in health motivates integrated service delivery toward quality, equality, and long-term care. Strengthening professional regulatory bodies and organisations is part of this component. Human resources for health need to create and execute measures to increase availability while ensuring healthcare equity and quality. Health finance assures adequate and sustainable healthcare supply and consumer revenues at the municipal, state, and federal levels.

A National Health Management Information System offers sufficient information management for all administrations within the Federation. Managers at all levels would utilise it to make decisions (NACA, 2012: 3). To help sustain health results, community members are engaged in health development, administration, and community

ownership. Partnerships for health would improve vital health services in accordance with national health policy objectives. Health research would be helpful in educating health policies and programmes, achieve national and international goals for health development, and contributing to the global knowledge platform (NACA, 2012: 3). This component promotes collaboration and cooperation among health ministries and local government health departments and universities, communities, and other organisations. The collaboration forges a strong relationship between research consumers, politicians, and research producers like institutions (NACA, 2012: 3).

Although this strategic plan has been executed, UNAIDS (2012b:8) claimed that Nigeria's healthcare system moves slower than other African nations. This index is intended to evaluate the developmental level of the country and its crucial public health issue (Oppenheim et al., 2019: 6). Furthermore, the health systems research and policy approach, which attempts to provide trustworthy and rigorous evidence to influence health choices, is a fresh idea in Nigeria (Kalbarczyk et al., 2021: 9). However, capacity restrictions at the individual and organisational levels, communication gaps, and a lack of networking among policymakers and academics are significant difficulties in Nigeria (Kalbarczyk et al., 2021: 10).

### 2.11.3 Monitoring and Evaluation Systems

The third component of Nigeria's strategic response to the "Three-Ones" principle of HIV and AIDS is located within the monitoring and evaluation system, which provides reliable, accurate, and timely information concerning the progress of the national strategic health development plan and reports regarding performance indicators (El-Sadr et al., 2018: 7). Data gathering to satisfy the goals of the national strategic plan and its development partners, identification of underserved subgroups by service. The use of third-party evaluators for an impartial review is also part of monitoring and evaluation programmes (El-Sadr et al., 2018: 7). The Ogun State Ministry of Health, a monitoring and evaluation unit run by a nurse leader, is one of the sub-units in this case study. Nurses aid in collecting data necessary to monitor and assess the state's HIV and AIDS programmes. To inform decision-making, the national strategies framework requires data and the cooperation of important stakeholders (El-Sadr et al., 2018: 8). It also enables collaboration among data producers in healthcare and their involvement in significant health decisions. Consequently, nurses are critical components of the Nigerian healthcare system. Nonetheless, they are not a coordinating body responsible for producing good results within the national strategies framework's eight main features.

## 2.12 AFRICAN COUNTRIES' STRATEGIES AND POLICIES ON HIV AND AIDS

The international community has pledged to eradicate HIV and AIDS by 2015. The strategy for achieving this goal is outlined in a plan adopted by the WHO and UNICEF in 2011, which aims to eliminate new HIV and AIDS infections among Africans by 2015 and help keep patients alive (WHO/UNICEF, 2012). This plan focuses on low- and middle-income countries, with an emphasis on HIV and AIDS programmes to improve patient health outcomes. HIV and AIDS transmission services are integrated into the healthcare system, along with sexual and reproductive health programmes (WHO, 2010a).

The objectives are to:

- Accelerate African countries' efforts to provide comprehensive HIV/AIDS services.
- Improve the quality of HIV/AIDS services and demonstrate their impact on public health.
- To reduce overall mortality, strengthen the links between reproductive health services and HIV-related services (WHO, 2010a).

Although this global plan has been successful in some Sub-Saharan African countries, including Botswana, Ghana, Namibia, South Africa, and Zambia, other countries, such as Nigeria, have not seen the same level of success (AVERT 2015).

## 2.13 ENHANCING STRATEGIES METHOD

The methods outlined below are helpful in providing a framework for developing initiatives to increase nurses' engagement in healthcare research development in HIV and AIDS transmission in Nigeria. It is mainly based on well-established analysis, selection, and execution methods whose pivotal aspects are listed below:

- Recognise the present state of healthcare research progress.
- Consider how nurses got to where they are today.
- What are the healthcare research development purpose, vision, and values?
- Examine the benefits and drawbacks of healthcare research.
- Identify and analyse strategic alternatives.
- Establish goals for the advancement of healthcare research.
- The best way to convey the approach to nurses and healthcare organisations.
- How to put the plans into action; and

- Review progress.

Essential methods have been put in place to address the problems of nurses' research development. Takalimane (2018) advocated those nurses be given time to search library literature to obtain, analyse, and synthesise evidence for their practice. However, this plan may be impracticable given the worldwide lack of nurses in research development settings (Takalimane, 2018). The patient burden is very demanding, requiring more time for nursing practice than is provided for nurses working onward in typical clinical settings (DiCenso et al., 2019: 3). Another source of worry is the scarcity of printed or online nursing research publications in clinical hospital libraries (DiCenso et al., 2019: 6). Increasing the availability of resources in the clinical setting can infringe on some countries' already financially constrained healthcare settings (Takalimane, 2018).

As highlighted above, the time and capability to analyse and synthesise a research article may not be available to nurses. Instead, DiCenso et al. (2019: 4) discovered that designating a person who can examine and synthesise new research or search for previously synthesised information, such as evidence-based tools, is more viable. This information may be accessible to nurses via continuing nursing education, grand rounds, and staff meetings, allowing for better decision-making and practice change (DiCenso et al., 2019: 4).

### 2.13.1 Training and Support Strategies

Before the research was implemented, nurses should be trained on utilising it, contributing to its effectiveness. Most studies emphasised the significance of nurses' trust in applying the research, with poor training often cited as a barrier. This was especially noticeable in technical research analysis. The length of instruction varies across studies. For example, when investigating the introduction of a novel wound dressing, Joy et al. (2018: 5) conducted a two-week training and teaching period.

In contrast, in Vabo et al.'s (2016)'s research, a three-hour training was delivered to healthcare professionals, while in Sherman et al.'s project, a one-day course was presented by Overbaugh, Byrne and DiGiacomo (2022: 8). Due to the failure of the implementation, this one-day course was then expanded to two days and was followed by a group discussion four weeks later. Nevertheless, evidence indicating that wound dressing was effectively adopted (Joy et al., 2018: 7) implies that a long training time

had a role in its adoption. Furthermore, continuing assistance boosted uptake (Kapp, 2013: 6).

### 2.13.2 Organisational Infrastructure and Changes

Changes in organisational structure, restructuring, and service decentralisation negatively influence implementation. For example, Murray et al. (2018: 5) discovered that organisational change diverted staff time and energy from research development. A reported difficulty with leadership, including the disbanding of the specialised implementation group after the first year and insufficient allocation of resources for training and assistance, was perhaps attributed to this organisational restructuring (Murray et al., 2018: 4). Similarly, Taylor et al. (2015: 3) found that reorganisation of community nursing teams, integration of health and social care, and the formation of new Clinical Commissioning Groups were all identified as impediments to the use of new telehealth technology. Staff regarded these developments as 'unprecedented' and 'overwhelming' (Taylor et al., 2015: 4). Consequently, adjusting to these changes was prioritised. As a result, a stable structure, as opposed to rearrangement, promotes implementation in community nursing.

## 2.14 TRANSMISSION OF HIV AND AIDS

Blood, sperm, pre-seminal fluid, rectal fluids, vaginal fluids, and breast milk are all ways HIV and AIDS are transmitted. Sexual transmission is the most frequent method of HIV transmission between individuals, accounting for 80 % of new infections globally (Kordy, Tobin & Aldrovandi, 2019: 8). The male-to-female transmission was 2.3 times more potent in heterosexual transmission studies than female-to-male transmission (Armstrong & Kaul, 2021: 7), demonstrating that HIV in sperm is the most prevalent vector in the transfer of this illness. HIV-1 spreads inside a host via dispersing viral particles (cell-free virus) or directly transferring from cell to cell (cell-associated virus) (Armstrong & Kaul, 2021: 9). The concentration of cell-free virus in blood plasma (viremia) is the gold standard predictor of the illness process in clinical practice.

Consequently, following research into antiretroviral treatment (ART) medicines and broadly neutralising antibodies (bNabs) has concentrated on inhibiting virus transmission from cells (Smith & Derdeyn, 2016: 4). Infected sperm contains HIV virions in both cell-associated proviral DNA and cell-free RNA virions, as well as free-floating virions in seminal plasma (Shiwnarain, 2017: 5). However, it is uncertain

whether HIV-1 transmitted via sexual contact is caused by a cell-associated virus, a cell-free virus, or both (Gianella et al., 2018: 7). According to in vitro research, cell-associated viruses play a critical role in HIV sexual transmission (Kolodkin-Gal et al., 2013: 6). Cell-to-cell transmission is 2-3 times more effective than the viral spread in the absence of cells (Zhang & Zhang, 2021: 8).

Several research in vivo and in vitro models have employed topical microbicides and passive immunisation to inhibit cell-associated HIV transmission during sexual contact (Zhang & Zhang, 2021: 9). Antibodies that limit leukocyte adherence to epithelial cells, as well as chemoprophylactic anti-retroviral medicines (Romer et al. 2019: 10). These breakthroughs are presently in the in vitro or pre-clinical phases. Consequently, understanding HIV-1 infection and transmission in these tissues is crucial for designing novel therapies targeting cell-associated and cell-free viruses (Kolodkin-Gal et al., 2018: 6).

It is common to mix up HIV and AIDS. They are distinct diagnoses, but they are related: HIV is a virus that can cause the disease AIDS, also known as stage 3 HIV. While HIV is a virus that can cause infection, AIDS (acronym for acquired immunodeficiency syndrome) is a disease. HIV infection can result in the development of AIDS. HIV can be passed from person to person, but AIDS cannot be passed from person to person (Verma et al. 2019). AIDS, or stage 3 HIV, develops when HIV has caused significant immune system damage. It is a complex condition with varying symptoms from person to person (Verma et al. 2019).

## 2.15 MANAGEMENT OF HIV AND AIDS

HIV is most often diagnosed in blood by screening for antibodies (disease-fighting proteins) against the virus. Typically, HIV antibodies do not reach detectable levels until one to three months following infection (scientists currently review this time frame). It looks to be less than three months) (DPSA, 2022: 56). Consequently, those exposed to HIV should be tested for infection as soon as antibodies to the virus emerge. Early testing enables an infected individual and their doctor to seek antiretroviral therapy, significantly affecting them. It remains to be seen if this helps individuals live longer and healthier lives. It also allows the person to adopt a generally healthier lifestyle (eating better food, minimising drug usage).

Early testing also alerts HIV-positive individuals to Avert high-risk behaviours that may transfer the infection to others. According to the South African Department of Public

Service and Administration (DPSA, 2022: 56), management can ensure that various stakeholders are committed to incorporating HIV and AIDS research principles into their daily work; this ensures that the necessary financial capacity, building needs, and human resources are aligned with the HIV and AIDS research. Management must be dedicated to the research and the programme since they have decision-making authority and influence the programme. They must also account for the resources and analyse the programme's effectiveness (DPSA, 2022: 56).

HIV preventive approaches and programmes that employ antiretroviral treatment (ART) to lower the risk of HIV transmission are referred to as TasP. When administered regularly, antiretroviral medication (ART) may reduce the HIV viral load in a person's blood, sperm, vaginal fluid, and rectal fluid to a level that blood tests cannot detect (WHO, 2012: 2). This is referred to as a viral load that is 'undetectable' or viral suppression. In these instances, if a person's viral load stays undetectable, their health would be unaffected by HIV, and they would be unable to transmit HIV to others. However, viral suppression is established when a healthcare practitioner gets frequent treatment assistance, monitoring, and viral load testing. Consequently, although the success of ART as a preventative tool is apparent, it is also employed as a public health intervention and a patient-specific approach.

Beginning in 2011, the landmark research HPTN 052 highlighted early treatment's personal and public health advantages. The research, which included 1,763 mixed-status couples, revealed that beginning ART early in the HIV-positive spouse decreased incidences of forwarding transmission to the HIV-negative partner by 96% compared to commencing treatment later. In addition, early therapy resulted in 41% fewer unfavourable health outcomes for HIV patients than those who did not get treatment (Rayment, 2012: 3). Michel Sidibe, the UNAIDS Executive Director at the time called the HPTN 052 findings a "breakthrough" and a "major game-changer … that will move the preventive revolution ahead" (UNAIDS, 2011: 5). Furthermore, several follow-up studies have shown substantial decreases in HIV transmission by early treatment commencement, resulting in fewer new infections (Celum & Baeten, 2012: 2).

The spouse trial, which recruited over 1,000 couples in 2014, found no transmissions among mixed-status couples when the positive partner's viral load was undetectable (Rodger et al., 2016: 3). In addition, four-year research done among 14 European nations revealed no transmissions in couples whose viral load of the HIV-positive spouse was undetectable after they had intercourse 58,000 times without a condom.

The research, which included heterosexual and homosexual couples, offers solid evidence for TasP's effectiveness (Rodger et al., 2016: 6). This evidence for TasP's efficacy has resulted in new WHO guidelines for a "test and treat" approach to expanding testing and treatment coverage by immediately starting all people diagnosed with HIV on ART, regardless of their CD4 count or viral load, which indicates the level of HIV in a person's body. This technique aims to reduce the community viral load (the average viral load within a specific group) and the rate of new HIV infections (WHO, 2015: 7).

This is a crucial component of UNAIDS' 90-90-90 objectives for eradicating AIDS as a significant illness by 2030 and averting a public health catastrophe (i.e., 90% of all HIV patients are informed of their ART status, and 90% of all ART patients are virally suppressed) (Celum & Baeten, 2017: 2). In 2017, 75% of HIV-positive persons were aware of their status, 79% were taking therapy, and 81% of those receiving treatment were virally suppressed (Rodger et al., 2016:8). However, in many countries, access to treatment and consequent viral suppression levels are lower among persons most at risk of developing HIV (often referred to as "key groups"), such as males who have sex with men, sex workers, drug users, and compared to the general population. These individuals' access to treatment is impeded by punishing legal contexts, the stigma associated with HIV, and the worry that an HIV diagnosis may be publicised to others without their permission.

Men had lower levels of testing and treatment than women in every area of the globe, with the most inadequate overall outcomes in West and Central Africa, the Middle East and North Africa, and Eastern Europe and Central Asia (Celum & Baeten, 2017: 11). In general, the HIV policies of many nations are fast evolving to coincide with WHO recommendations for testing and treatment. As of 2018, 84% of developing nations have enacted a test-and-treat policy. In contrast, at the end of 2016, the guidelines' first year of existence, a 40% of developing countries had established a trial and treatment policy. If existing pledges are reached, 92% of all low- and middle-income countries would have adopted a test-and-treat policy by the end of 2020 (Das et al., 2020:8). These modifications have resulted in a considerable increase in the number of patients on ART, which has risen by 4.5 million in only two years, from 17.2 million to 21.7 million between 2015 and 2017 (Thigpen et al., 2012: 14).

Despite hurdles, new worldwide initiatives have led to a remarkable rise in the number of individuals getting HIV treatment in recent years, especially in resource-poor nations. By 2020, 73% of persons living with HIV were projected to have access to

therapy. Sixty-six (66%) had viral suppression (Avert, 2022a: 1). As of June 2019, 27.5 million HIV-positive persons received antiretroviral medication (ART), a massive increase from 7.8 million in 2010. However, this rate of treatment growth was inadequate to meet the world's aim of 30 million individuals getting treatment by 2020 (Avert, 2022a: 2). Furthermore, tremendous progress in averting HIV transmission from mother to child has been accomplished. By 2020, 85% of all HIV-positive pregnant and nursing mothers would have access to therapy to prevent HIV from infecting their children (Avert, 2022a: 1).

## 2.16 NURSES' ROLE IN THE PREVENTION OF HIV AND AIDS

Nursing is an ever-changing and dynamic profession founded on human health knowledge gained through theory, practice, and research. Of all health professionals, nurses are the most common type of health professionals. They are crucial to the smooth-running of Nigeria's healthcare system, and the execution of significant improvements in all areas (Davis, 2019: 8). Research, client advocacy, education, clinical decision-making, policymaking, and care coordination constitute some of their many responsibilities. Their job allows individuals to attain optimum health while adhering to existing social, cultural, and scientific criteria (Hassmiller, 2016: 8). Working across disciplines and health system sectors also give nurses knowledge about relevant health services and research design advancements, enabling them to employ the best practice alternatives (Davis 2019:9).

Nurses' contributions to HIV and AIDS prevention efforts are important to meeting the 2015 target of eradicating new HIV and AIDS cases in Sub-Saharan African nations (International Center for AIDS Care and Treatment Programme, 2013: 10). Due to the limited number of doctors in the healthcare system, the United States President's Emergency Plan for AIDS Relief (2005: 3) identified task shifting as important to achieving this aim. Because of increased demand, nurses' roles have extended to identify and treat opportunistic infections and provide antiretroviral medicine (International Center for AIDS Care and Treatment Programme, 2013: 7).

For example, giving combination antiretroviral therapy in resource-limited settings (Kredo et al., 2014:9); successful integration of traditional birth attendants into the Nigerian healthcare system to increase coverage in HIV and AIDS prevention (Ogbolu et al., 2018); use of counsellors, particularly for infant feeding (El-Sadr et al., 2018: 14); and implementing HIV and AIDS prevention policies. According to Kredo et al. (2014: 9), there was a somewhat lower proportion (5.5%) of patients lost to follow-up

in nurse-led retroviral treatment compared to the doctors' group (7.7%). According to Ogbolu et al. (2018: 8), effective HIV research and guidelines implementation by nurses, whether on a national or global scale, need both scientific and practical knowledge of HIV and AIDS research formation and implementation. The WHO describes nurses' unique role in HIV and AIDS prevention as advocacy, education, and the delivery of competent, evidence-based, and culturally sensitive nursing services to enhance the health of individuals, communities, and families.

The shifting of tasks has successfully expanded HIV and AIDS prevention coverage in certain Sub-Saharan African nations. For instance, the ICAP initiative and the multi-drug HIV regimen allowed South African nurses to distribute antiretroviral medications, a previously specialised function reserved for physicians. This enhanced role has enabled South Africa, one of 22 nations with high HIV and AIDS coverage, to address HIV and AIDS patients (ICAP, 2013: 3). Because of physician scarcity, an innovative task-shifting project in Ethiopia employed the nursing workforce to evaluate patients' eligibility for antiretroviral treatment, prescribe, offer follow-up care, renew ART medicine prescriptions, and manage complaints of a minor nature. This service has helped physicians cope with difficult situations (ICAP, 2008: 8). By implementing an in-service training programme, nurses' contributions to Swaziland's HIV and AIDS programme enhanced malnutrition prevention (ICAP, 2008: 7). Strengthening nursing is a crucial component of the global health workforce, according to the ICAP, notably in Sub-Saharan Africa, which has the most significant incidence of HIV and AIDS (ICAP, 2012: 6).

Doherty et al. (2009: 5) recommended more HIV and AIDS-trained nurses. Lolordo (2012: 4) described how the Tanzanian healthcare system had been improved by the deployment of nurses as part of a government-sponsored effort. This project aimed to reduce the number of HIV and AIDS infections transmitted from person to person and, as a result, fatalities. According to Kafulafuta, Hami, and Chodzaza (2005: 2), nurses are essential in reducing HIV and AIDS-related deaths, HIV and AIDS prevention programmes, and overall healthcare strengthening. According to them, nurses are the only health staff most Nigerians would ever encounter. Similarly, Rujumba et al. (2012: 8) contend that health workers (including nurses) play an essential role in HIV and AIDS prevention programmes in Nigeria and should therefore be considered stakeholders in any decision-making about the design, strengthening, and implementation of the HIV prevention programme.

According to the WHO (2010b: 5), nurses, regardless of whether their patients have HIV or AIDS, contribute to HIV and AIDS mortality reductions in their responsibilities as trained healthcare professionals and healthcare providers. Inter-professional team members and directors deliver person-centred care for their various communities, increasing overall health outcomes and due cost-effectiveness of services. They are the unsung heroes of Nigeria's healthcare system, helping reduce HIV and AIDS-related mortality, yet their opinions are seldom heard in healthcare decision-making forums (Awofala & Ogundele, 2018: 6).

Sanne et al. (2010: 8) conducted a non-inferiority randomised controlled trial comparing nurses' and physicians' assistance in delivering antiretroviral medications. Kredo et al. (2014: 6) conducted a Cochrane review, showing that using nurses to begin and administer antiviral medications has many benefits, including fewer lost follow-up clients. In addition, there has been no change in the death rate compared to doctors. These findings indicate that nurses are able to lead healthcare reform initiatives since they are well-placed and well-equipped to do so. However, regardless of these characteristics, nurses face significant challenges while taking on leadership roles in the nursing sector. These difficulties might include a lack of sufficient educational preparation to take on new responsibilities in a rapidly changing healthcare system and effectively execute their role in building HIV prevention programmes (IOM, 2010).

Furthermore, even though nurses provide 80% of global healthcare, they continue to be unable to negotiate research, as Davis (2012: 4) stated. If nurses are essential to HIV prevention initiatives, their contributions are crucial to reaching healthcare objectives. Mitchell (2003: 7), on the other hand, claimed that when healthcare improvements are proposed, those nurses are seldom consulted. WHO (2010b: 8) outlined strategic directions for strengthening nursing services from 2011 to 2015, including guaranteeing universal coverage, delivering people-centred healthcare, implementing regulations altering practice conditions, and extending national health programmes in Nigeria to fulfil global objectives and targets for HIV and AIDS transmission prevention. If rigorously adhered to, this framework would provide a comprehensive platform for collaborative action to strengthen nurses' capacity to policymakers, practitioners, and other stakeholders at all levels (WHO, 2010b: 10). The WHO framework for nursing workforce strengthening is focused on five essential areas:

- Health system and service strengthening.

- Nursing research and practice.
- Career development through education and training.
- Managing the nursing workforce; and
- Nursing service partnerships.

Providing fair chances at the research table and following the WHO (2010b: 11) framework for developing nursing services would eliminate obstacles and boost nurses' efficiency.

## 2.17 NURSES' PARTICIPATION IN RESEARCH

Nursing research began to acknowledge professional autonomy around three decades ago. Despite the contributions of academic nurse researchers to the development of evidence-based nursing, there are still research and clinical practice gaps that prevail (Smirnoff et al., 2005: 2). Nurses' unique position as HIV and AIDS research implementers necessitates their research-creation. According to Campion (2018: 6), although there is a plethora of information on HIV and AIDS prevention, the problem has been how to increase the implementation and optimisation of programs in developing nations. More research is needed to overcome this barrier.

Similarly, Court (2006: 8) asserts that a schism does exist between HIV and AIDS research in underdeveloped nations. This disparity has had a depressing impact on the quality of life of HIV and AIDS patients. However, it has also spurred technical consultations on operations research to execute better the HIV and AIDS programme, care, support, and treatment.

In building HIV and AIDS active research topics, over 70 partners from HIV and AIDS-affected countries, international and donor organisations, implementing organisations, and academic institutions collaborated (Campion, 2018: 7). Research on health and disease control programmes, regardless of research design, methodology, or approach, entails generating adequate practical knowledge that may help with implementation of programmes, which is enhanced by the factor’s access, expansion, effectiveness, efficiency, quality, and sustainability. In addition, successful operational research studies can modify research and practice to enhance the performance of programmes and health systems (Campion, 2018: 8). Active HIV AND AIDS prevention research should focus on how global norms may be implemented in developing countries while considering the local context. This is necessary since these countries lack institutional routes for sharing experiences or systematically analysing

current field data and lack global mechanisms for categorising objectives and giving global agendas (Campion 2018: 6). The five broad areas of HIV and AIDS research that should be prioritised include, but are not limited to:

- Identifying effective strategies for providing.
- Monitoring CD4 testing/antiretroviral treatment for HIV and AIDS-positive patients.
- Methods for administering postpartum prophylaxis while nursing.
- Possible methods to measure the effectiveness of HIV and AIDS programmes for HIV and AIDS patient outcomes; and
- Effective community strategies to reduce HIV and AIDS transmission (WHO, 2012: 10).

According to academics, nurses in Nigeria are underrepresented in research formulation (Asuquo et al., 2018: 6). Time constraints, insufficient staffing and an excessive workload, a lack of research mentors, a high cost, a lack of organisational support, organisational characteristics (lack of evidence-based practice protocols), and a lack of other resources for translating research evidence into practice all contribute to nurses' limited participation. These challenges, however, may be solved if nurses worked as a group/association rather than as individuals to pursue a single purpose (Taft & Nnna, 2008: 3).

Health research is a society's choices, strategies, and actions to attain healthcare objectives. Stimpson and Hanley (2009: 7) define research as the choice that a society, section of a community, or organisation makes about its objectives and priorities and how it distributes its resources to attain health goals (Mason, Leavitt & Chaffee 2007: 8). This HIV and AIDS research refers to the strategies and measures done by many stakeholders in the healthcare system to eliminate HIV and AIDS transmission. Explicit health research, such as HIV and AIDS, sets a future route, identifies goals and the anticipated responsibilities of diverse groups in the healthcare system, fosters agreement, and educates the public (WHO, 2011: 6). Furthermore, research decisions reflect the values, ideas, and attitudes of the people who construct the research (Mason et al., 2007: 8).

Nurses have values, and when governments adopt policies that reflect those values, nurses have the right to participate in political decision-making. The WHO (2010b:10) states that when nations adopt plans to expand and strengthen HIV and AIDS objectives programmes, they must address research concerns about HIV and AIDS programme implementation and service delivery. HIV and AIDS research issues include integrating HIV and AIDS services with other healthcare services, extending

these services, delivering antiretroviral treatment, funding HIV and AIDS services, and task shifting (WHO, 2010a: 10). The primary purpose of HIV and AIDS policies and guidelines is to guarantee the delivery of high-quality HIV and AIDS care services throughout regular HIV and AIDS management care, which includes comprehensive services for persons living with HIV as well as care for those who have been exposed to HIV (WHO, 2010a: 10). At the national and global levels, stakeholders play an essential role in research formation and programme development and make country-specific suggestions to ensure a holistic response to HIV and AIDS preventive efforts (Dohrn et al., 2009: 12).

Policies aiming at integrating HIV and AIDS services into pre-existing healthcare programmes capitalise on both programmes' strengths and resources. Consequently, persons at risk may be reached using current services, expanding access to HIV-related healthcare and enhancing the overall public health effect of HIV and AIDS programmes (WHO, 2010a: 9). According to Kim et al. (2008: 4), the effective integration of HIV and AIDS preventive programmes is contingent on all stakeholders participating in research-creation. According to Dohrn et al. (2009:6), HIV and AIDS prevention integration activities occur at most primary healthcare institutions and are directed by nurses; hence, most activities centred on HIV and AIDS prevention integration revolve around nurses for success.

This emphasises the significance of nurses engaging in HIV and AIDS policy-making in the research area, which has a high incidence of HIV and AIDS transmission. Policies on task shifting, for example, are necessary for addition to integration policies to rationalise the transfer of jobs within health workforce teams by moving HIV and AIDS treatment responsibilities from doctors to nurses. This is an area where nurses' expertise is needed, especially in resource-constrained nations (Kredo et al., 2014: 8; Ogbolu et al., 2018: 6). Furthermore, nurses' engagement in planning and research formulation in health and donor organisations is essential in Nigeria to handle the HIV and AIDS crisis.

Even though Hassmiller (2010: 7), the IOM (2010: 4), the ICN (2014: 8), and the WHO (2010b: 9) all agreed on the need for nurses actively participate in healthcare planning and decision-making, they all pointed out that they remained marginalised in these activities. According to Toofany (2005:6), few nurses in clinical settings engage in research discussions or perceive health research as a "nursing problem." Nurses' impotence is exacerbated by their lack of representation in decision-making, regardless of their numbers. According to (Gaventa 2011: 12), the nursing profession

has been sluggish to recognise and capitalise on its position to support and influence healthcare research. Others emphasise the necessity of nurses engaging in public policy-making and political activities to fulfil their commitment to providing the best healthcare possible to their communities and the country (Spenceley, Reutter & Allen 2018: 12).

It is important to note that the healthcare system is a collection of separate experts with nothing in common, yet they are connected to address the health requirements of the public. Consequently, equal representation is essential for the recognition of the contributions of each professional group to shared aims (Abood, 2017: 7). Failure to involve all professions in balanced strategic communication and action leads to systemic imperatives (Polifroni and Welch, 1999: 6). Furthermore, those with the most substantial authority usually have the largest influence in such instances, meaning that others would largely develop laws and regulations (Meleis, 2007: 8).

Gaventa (2017: 12) proposed that nurses follow orders and abide by the system's norms and laws in this scenario of impotence. In Nigeria, Asuquo et al. (2018:8) stated that despite their widespread representation at all levels of the Nigerian healthcare system, including state and federal ministries of health, nurses were not engaged in policymaking. Their voices, however, are frequently silenced in policy-making and decision-making forums. Consequently, the Nigerian association saw itself to be underutilised. Political considerations, issues with effective leadership, an inability to use nursing research to influence policymaking, a lack of public research understanding, and research formulation skills are significant hurdles to nurses participating in policy-making processes (Akunja et al., 2022: 4). According to Meleis (2007: 6), other constraints include a lack of research training, insufficient skill with practical knowledge transfer programmes, and restricted possibilities for communication with politicians. Ditlopo et al. (2014: 9) concurred, noting that most nurses (particularly frontline nurses) were unfamiliar with most health legislation in Nigeria, except those about compensation, which directly impacts them.

Furthermore, they were unaware of how their diverse groups were represented in research arenas. According to Taft and Nanna (2008: 8), most nurses do not know how to influence research. Identifying where and how choices are made may reduce policy-making’s mystery and ambiguity. According to Phaladze (2003: 6), nurses lack the skills to complete research judgments. Mason, Leavit, and Cheffee (2007: 5) identified four tiers of government through which nurses might engage in research and political action: professional organisations, the workplace, and the community. Given

Nigeria's low HIV and AIDS coverage, it is critical to investigate the barriers to nursing research to reduce HIV and AIDS transmission and how nurses contribute to public health research. Suggestions for active participation in developing Nigeria's healthcare system are desperately needed (Abubakar et al., 2022: 5)

### 2.18 SUMMARY

The preliminary literature study provided light on the many elements influencing nurses' engagement in productive health research in Nigeria in the context of HIV and AIDS. The study offered worldwide policies and strategies that affected Nigerian HIV and AIDS policies and implementation approaches for each of the four key prongs. The extent of HIV and AIDS coverage achieved due to HIV and AIDS programme implementation in the Nigerian healthcare system is also highlighted. A literature review found that nurses have different roles and contribute as frontline clinical practitioners in implementing prong-related interventions. However, little is known about nurses' contributions to HIV and AIDS research development. While there has been relatively limited engagement in health research by Nigerian nurses, no literature documenting nurses' contributions in the context of HIV and AIDS was found. Nursing leadership has been essential in inspiring nurses to engage in beneficial research and subsequent research development to reduce HIV and AIDS transmission. This study intends to fill a gap in the Nigerian literature by recommending actively involving nurses in the country's research development.

The next chapter focuses on the theoretical framework of the study.

# CHAPTER 3
# THEORETICAL FRAMEWORK

## 3.1 INTRODUCTION

This chapter outlines the theoretical viewpoints that influenced this study, from formulating and developing the research question and design, to gathering and detailing the analysed data. Given the complexities of HIV and AIDS transmission and involvement of nurses in addressing this healthcare problem, it is vital to situate this work within a social-ecological model, the structure, process, result paradigm, disease diffusion theory and system research organizing model. Thorough knowledge of the involvement of nurses in research and general healthcare methods in respect of HIV and AIDS is provided via the work of these theorists. The chapter opens with a review of the theoretical perspectives used, after which a discussion of the social-ecological model theory ensues, then followed by the paradigm of structure, process and result theory, illnesses diffusion theory and the system research organizing model relevant to nursing. The researcher used the following theories because each theory handles one aspect of the issue, while another theory handles another. However, the theories would not lead to the same or conflicting predictions. The theories supported the different limitations of each because the researcher felt that one theory could not best explain in totality the study. The researcher used these theories because they were relevant to the study and that explained the phenomenon the study analysing.
Finally, the chapter discusses the integrated theoretical framework utilised in this study to investigate the contributions of nurses in HIV and AIDS research development in Nigeria.

## 3.2 ADOPTED THEORETICAL PERSPECTIVES

The theoretical and conceptual framework maps out the research path and strongly contextualises it in theoretical notions. The three frameworks' overarching goal is to make research results more relevant, acceptable to theoretical conceptions in the study area, and generalisable (Varpio et al., 2019: 989). They further help to stimulate research, while assuring knowledge expansion by offering directions and momentum to the research endeavour. These frameworks also improve the rigour and empiricism of research. Thus, Imenda (2018: 1) expounds accordingly that theoretical and conceptual frameworks give life to research. The theoretical framework has various advantages for the research effort. Among others, it provides a framework for demonstrating how a researcher defines their study philosophically, epistemologically,

methodologically, and analytically (Grant & Osanloo, 2018: 4). Meanwhile, Ravitch and Carl (2016: 2) agree that the theoretical framework serves as a guide for researchers in situating and contextualising formal ideas in their investigations.

The theoretical views used in the present study include those of the social-ecological model, the structure, process, result paradigm, illness spread theory and system research organizing model. These theoretical perspectives were utilised to help design research topics and explain data. This study's critical social perspective analyses the social, economic, and political elements that have influenced the nursing environment in the research setting (Stevens, 1989: 23). The social-ecological model hypothesis reveals power imbalances in the context, allowing for a more detailed study and discussion of results. According to the structure, process, outcome paradigms, and social life are regulated by the meanings, conventions, and norms that people (nurses) as society beings adhere to; hence, understanding human activities requires knowledge of these conventions (Halcomb, 2018: 5). When a disease spreads to a new site, it is called disease diffusion. It means that a disease spreads or flows out of a single point. When compared to prior ways of mapping disease, which are still used today, the idea of depicting the spread of disease using a diffusion pattern is relatively new (Xue et al., 2019:3).

## 3.3 SOCIAL-ECOLOGICAL MODEL THEORY

The modified socio-ecological model is viewed as relevant in this study, based on the expected individual behaviours and motivations of nurses to be involved in healthcare research-creation in respect of HIV and AIDS transmission and management in Nigerian hospitals. To better understand the HIV risk in each community, it is critical to analyse the possible effects of the many components in each layer of the MSEM (Michielsen et al., 2018: 4). The chances of contracting HIV, for example, vary depending on the individual's geographic location or residence. The same could be mentioned for public policies that can aid HIV prevention. The MSEM provides information on selecting relevant variables to analyse HIV status and may assist in formulating prospective interventions that might help reduce HIV transmission (Zembe & Ekstrom, 2015: 6). Detailed awareness of nurses' engagement in HIV-related research and overall healthcare activities is provided as well. This research used a social-ecological theory of power to argue that individual HIV and AIDS susceptibility is caused by how power is leveraged across contexts over time.

The current research combines a social-ecological power paradigm that evaluates how essential aspects of an individual's ecological niche interact with personal capabilities that increase or impede power usage (Tan et al., 2018: 2). An ecological niche is an environment in which a person's actions take place, including the geographical location in which one lives and larger social structures that shape participants' experiences based on race and ethnicity, socioeconomic status, income, gender, and sexual orientation. According to social-ecological theory, power may be described as an individual's capacity to satisfy their demands (Tan et al., 2018: 2). Individual needs are essential requirements for survival. The ability to meet demands is a behavioural potential reliant on the person, the environment, and their interaction, which co-creates a 'local ecology' that either constrains or facilitates an individual's exercise of power (Tan et al., 2018: 3). Thus, human-environment interactions generate power dynamics, and power is environmentally grounded. The relevance of these theoretical perspectives in nursing and a description of the integrated theoretical framework employed to develop nurses' roles in HIV and AIDS research in Nigeria are appraised in Figure 3.1 below.

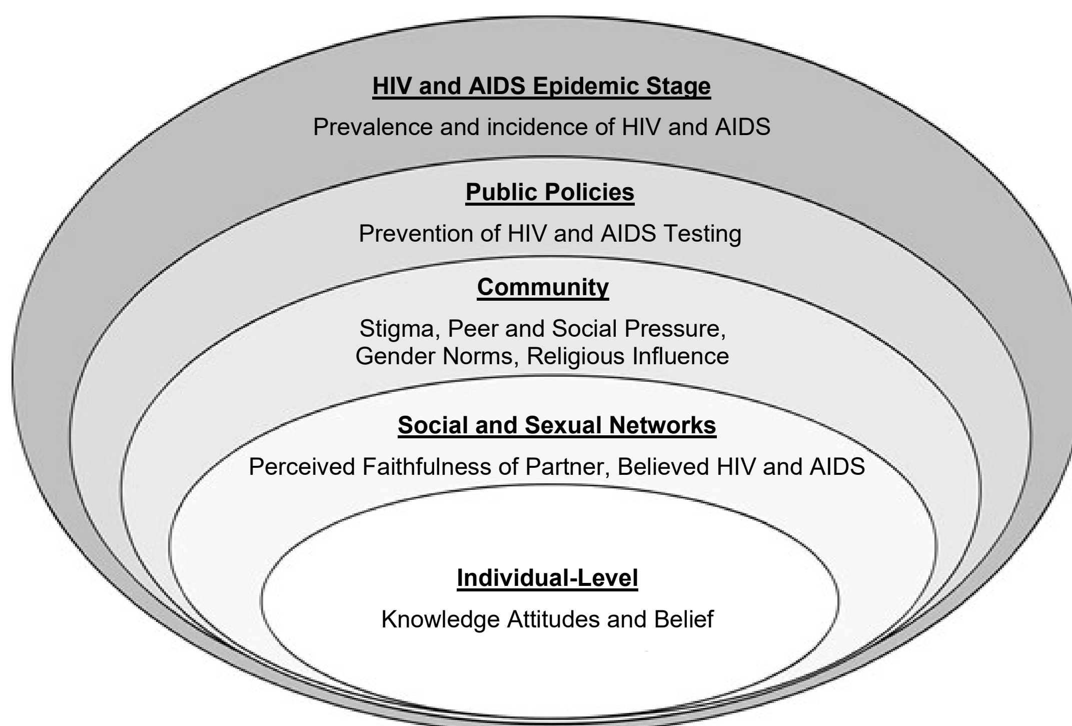



**Figure 3.1: Socio-ecological model modified for nurses working in Nigerian hospitals** (Source Baral et al 2013).

In this proposed research study, the MSEM viewpoint is also helpful for developing research questions and interpretation of the investigated phenomenon, that is, the research problem as articulated in the preceding section (Yin, 2018: 7). In addition, the critical sociological lens also describes the community, civic and commercial

issues influenced the research setting in its nursing context (Stevens, 1989: 7). According to a critical viewpoint of social theory, individuals (nurses) as societal creatures conform to meanings, norms, and conventions that control social life. Consequently, knowing these sociological conventions is crucial to interpreting human behaviours (Allen & Laurie, 2016: 4).

As the fundamental core of the healthcare system, nurses are potentially poised to contribute to health research and should be thought of not only as caregivers but as overall health scholars (Du Plessis, 2017: 25). Nurses should be included in creative research approaches in the quest to combat and ultimately defeat the HIV pandemic.

## 3.4 PARADIGM OF STRUCTURE, PROCESS AND OUTCOME

Figure 3.2 overleaf is a depiction of Donabedian's model for measuring quality by utilising measures such as structure, process, and outcome.

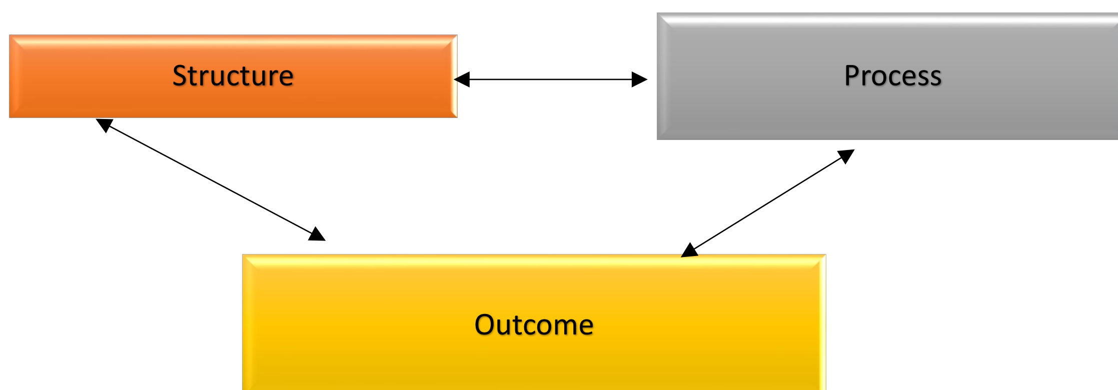



**Figure 3.2: The relationship between structure, process, and outcome**
(Source: Adapted from Donabedian, 1988)

Donabedian's work began in the 1960s and contributed to the healthcare sector's quest to define quality. The structure, process and outcome are the three types of assumptions concerning the quality of care outlined in the framework. Donabedian's structure reflects the peculiarities of the care settings (Donabedian, 1988: 11). This encompasses both material and human resources, as well as organisational structures. Facilities, equipment, and money are examples of resources. Human resources are then defined in the context of the quantity and quality of employees.

Staff organisation, peer review procedures, and reimbursement mechanisms are all organisational structure examples. At the same time, the process is situated in what is done in providing and receiving care (Donabedian, 2005: 4), which comprises the

patient’s actions in seeking and receiving treatment. Finally, the outcome refers to the impact of treatment on a patient’s health (Donabedian, 2005: 4). These are not quality qualities; instead, they represent the kind of information from which conclusions about the quality of treatment may be derived. According to Donabedian's viewpoint, an excellent structure is the foundation of good processes. Exemplary procedures, in turn, result in excellent outputs (Donabedian, 1992: 4). The model’s continuous feedback loop implies that structure and process are intertwined and influence the results. Consequently, changes in structure or procedures may enhance the results.

Donabedian’s theory further propounds that excellent structure combined with reasonable procedures delivers good results. It is possible to apply Donabedian’s framework to the proposed research study in that the structure of material resources comprises the research facilities, equipment, and funds. The number of trained employees who have been educated in the research process and can conduct and help in research is referred to as human resources. The organisational structure comprises a nursing research committee or programme and an Institutional Review Board (IRB). The day-to-day tasks of conducting research are referred to as process research.

Donabedian’s theory also entails an analysis of a study’s results. Other steps connected to the study include assistance from other members of the nursing team and the technique and strategies for developing a research proposal. Incorporating study results into everyday practice is a critical component of the process. When applied to research, Donabedian’s theoretical framework defines results as the implementation and development aftermaths in respect of nurses’ comprehension of the research enterprise as evinced by their quantitative increase in their research participation (Redfeam et al., 2004: 5). A solid supporting structure or process may produce different nursing research results in the form of expanding nursing research understanding, enhancing nursing research support through mentorship, and developing a programme for nursing research education (Redfeam et al., 2004: 5).

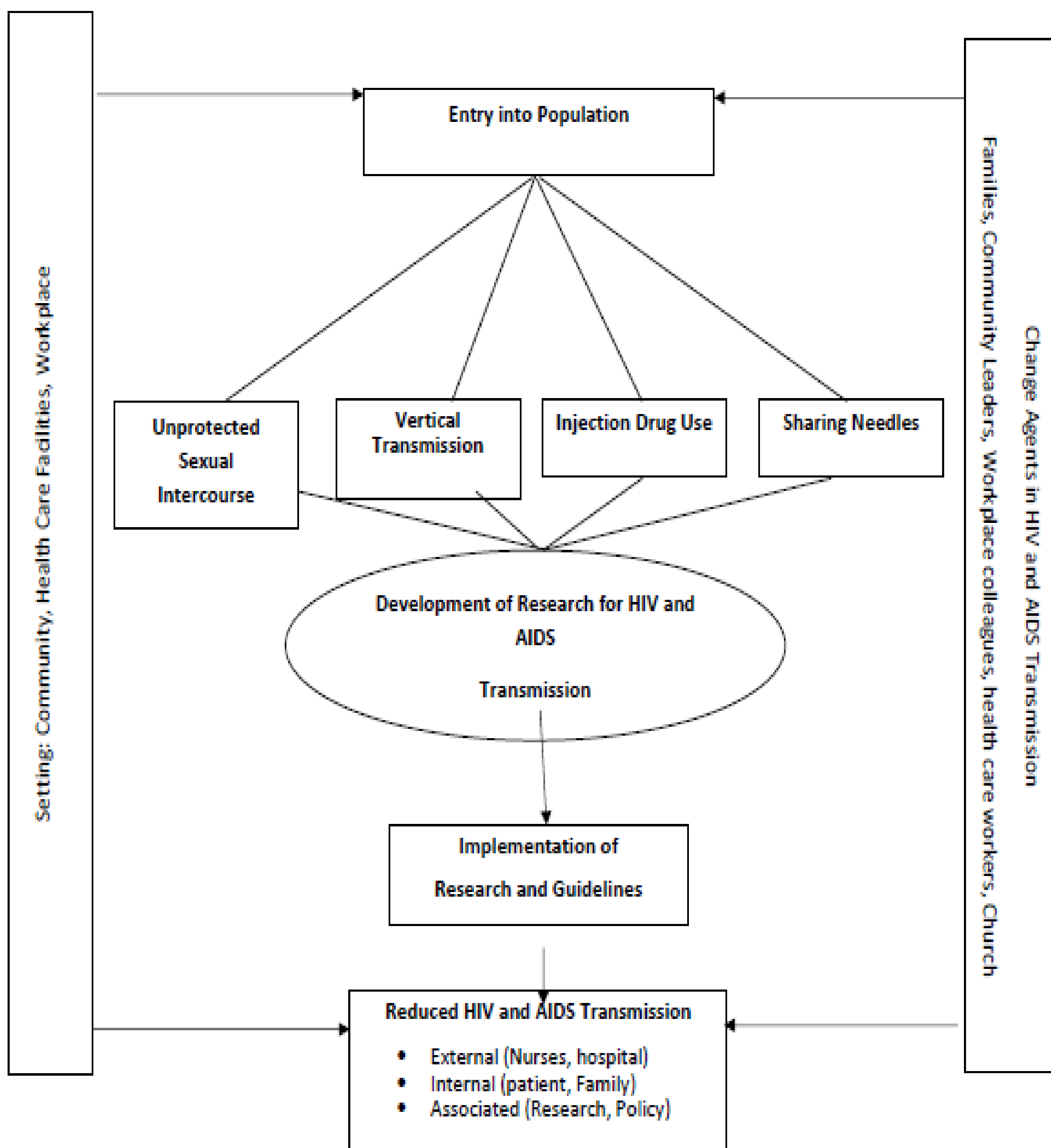
Another advantage of using Donabedian’s theoretical model is that nursing practice may be anchored in research. Accordingly, nurses employ protocols, procedures, and clinical pathways to guide care delivery in everyday practice. Evidence-based treatments into protocols, processes and therapeutic pathways promote the research-based approach. Nurses’ perceptions of their capacity to engage in research at any level influence their opinions regarding the organisational infrastructure and procedures. Since attitudes may either encourage or stifle research, the attitudes may

affect the results of research-based nursing treatments and practices. For instance, if organisations do not address the infrastructure for nursing research and nursing attitudes, these organisations will struggle to provide a conducive atmosphere for nursing research.

### 3.5 DISEASE DIFFUSION THEORY

The spread of diseases from their source into new locations is referred to as disease diffusion (Xue et al., 2019: 2). It is widely established that illness incidence is likely to be impacted by distance, with areas closest to the source of a disease seeing a greater incidence. Figure 3.3 overleaf is a representation of the disease diffusion theory as adapted from Cliff and Hagget (1998: 9) by the researcher.

Figure 3.3: Disease diffusion theory




(Source: Adapted from Hagget, 1998)

Although different theoretical techniques have been established to analyse disease epidemics, health researchers generally utilise three types of disease dissemination – contagious, hierarchical, and displacement (Cliff & Hagget, 1998: 9). Contagious diffusion occurs when disease dissemination follows commuting patterns and social contact networks, resulting in an increased local concentration of disease outbreaks. In a globalised society, increasingly linked by an integrated transport communication system, there is substantial evidence that illness may travel swiftly over national roadways and regional and global airports (Xue et al., 2019: 2).

On the other hand, hierarchical and network diffusion results in geographic disease migration across more considerable distances into previously uninfected areas (Earickson & Meade, 2010: 3). Cliff and Hagget (2006: 2) deepened and expanded on these ideas more recently. According to these authors, the hierarchy refers to a phase of fast geographic growth followed by network dispersion, which results in a slow and uneven disease retreat. Cliff and Hagget (2006: 3) posit further that the hierarchical phase is marked by illness persistence in certain groups before dying out completely. While disease diffusion modelling gives valuable insights into geographic disease dispersion and may assist in effective and timely responses to disease outbreaks, these techniques fail to fully incorporate the social, political, and economic conditions that support disease propagation.

Diffusion of Innovation explains how new ideas or behaviours are presented, diffused, and eventually accepted by society (Musmann & Kennedy, 2019: 4). This may be accomplished by researching which communities or demographics are targeted for HIV and AIDS prevention programmes. The disease diffusion hypothesis assists in understanding the specific behaviours that put a population at risk for HIV and AIDS and the variables that influence risk-taking behaviours. People's behaviours that put them at risk for HIV and AIDS acquisition and transmission are often the consequence of several complex variables functioning at numerous levels (Musmann & Kennedy, 2019: 4).

Individual, interpersonal, communal, structural, and environmental elements are addressed in behaviour change theories at one or more levels. Many academics and providers base their programmes on many characteristics from many perspectives. The following are some ideas and models and instances of programmes that employ them (Musmann & Kennedy, 2019: 4). The disease diffusion theory research and practice paradigm provide a ready set of ideas and methodologies that may be utilised to describe people's and organisations' receptivity to healthcare research and practices. Diffusion concepts may also be used to speed up acceptance and widen the scope of health research (Dearing & Cox, 2018: 183). The information diffusion model leads to the computerisation of HIV and AIDS risk assessment, which has practical implications for HIV and AIDS early detection.

The disease diffusion hypothesis helps explain successful community-based HIV and AIDS preventive programmes (Dearing & Cox, 2018: 184). Community-based interventions are multicomponent interventions that usually incorporate individual and environmental change methods across different settings to prevent HIV and AIDS

transmission and promote well-being across demographic groups in a specified local community. (Dearing & Cox, 2018: 187).

To address some of this void, health researchers are increasingly relying on the political ecology of disease hypothesis, which contends that although the existence of pathogens is required for disease transmission, it is not sufficient (McLafferty, 2010: 6). It has been stated that various groups of individuals are exposed to illness in different ways, have an uneven ability to deal with and fight infection, and have diverse access to treatment (McLafferty, 2010: 4). The idea of vulnerability has been crucial in understanding why certain groups have higher disease prevalence than others. The vulnerability relates to people's capacity to withstand, deal with, and recover from adversity (Adger, 2005: 7). This notion has helped demonstrate how disease exposure is inextricably related to poverty and other mechanisms that separate individuals from support networks and diminish their capacity to react effectively to the danger posed by the disease. Not all impoverished individuals are equally susceptible to sickness.

Vulnerability to infection is also dependent on people's ability to access and utilise both official and informal safety nets that exist in specific social and geographical settings to improve their capacity to deal with illness (Craddock, 2000; McLafferty 2010: 6). Because of various variables, including gender, determine resource availability, the idea of vulnerability allows for a better understanding of how diverse degrees of socioeconomic deprivation might translate into disparate disease risk and susceptibility profiles in the population. These notions allow for knowledge, for example, that although disproportionate susceptibility to HIV and AIDS transmission is frequent in Nigeria, there are considerable discrepancies among Nigerians about the specific disease risk they confront daily.

The variability of resources available to Nigerians in their surroundings are essential variables determining their variations in sensitivity to disease risk and health outcomes (Payne & Doyal, 2010: 6). As a result, structural variables affecting health risks, such as paid work, the availability of social support, and caring obligations, explain health disparities in health outcomes across various social and economic groups (Payne 2006:6). In this regard, the political ecology of health theory allows for a clearer understanding of the intricate interaction between various social, political, economic, and cultural factors; as well as their eventual predisposition of specific populations to illnesses differently than others (King, 2010: 7). The theory also tries to link changes in local environments, such as adult responsibilities, to social and economic transformations at various spatial and temporal scales. These conditions usher in new

infections or reconfigure the spread of existing epidemics. For example, gender, class, and age disparities might combine with inadequate state policies, wrong financing priorities, and public health infrastructure to shape disease risks across and among various groups of individuals (Schoepf, 2001: 2).

### 3.6 SYSTEM RESEARCH ORGANISING MODEL

The System Research Organising Model (SROM) was created to assess nursing systems research by studying the system's impacts on care outcomes. Still, it may also be applied in other types of healthcare research (Mandal & Sarkar, 2020: 7). The SROM is a technique used in evidence-based healthcare design to assist explain correlations between variables of interest (Mandal & Sarkar, 2020: 7). SROM is regarded to be a branch of previously developed ideas or models. Among the theoretical frameworks supporting SROM are the Avedis Donabedian's Quality of Health Result Model - a fundamental structure, process, and result framework, Outcome Model for Healthcare Research, and the American Academy of Nursing Quality of Healthcare Outcomes Model (Gilmartin & Sousa, 2016: 150). The SROM is beneficial for synthesising a body of information used in healthcare. The healthcare environment is the framework in which care is planned, organised, provided, assessed, and managed throughout a continuum.

Each feature or attribute of healthcare design depends on patient characteristics such as disease positivism paradigm ontological, epistemological, methodological axiological burden or chronicity, acuity rating, nurses' research development attitude, staff, clinical, and organisational research development outcomes. The SROM is a four-concept paradigm that includes client, context, action focus, and results. The key components are interconnected and acknowledge the complexity of the healthcare environment and nurses' role in developing healthcare research in the context of HIV and AIDS transmission in Nigeria. The first construct represents the system input: the client. The customer drives the model.

The second component, context, describes environmental factors that may impact results. The third element, action focus, is an intervention that significantly affects development. The fourth component, outcome, refers to the outcome of the care. It results from the interplay of the other parts. Figure 3.4 below depicts the SROM's various constructs.

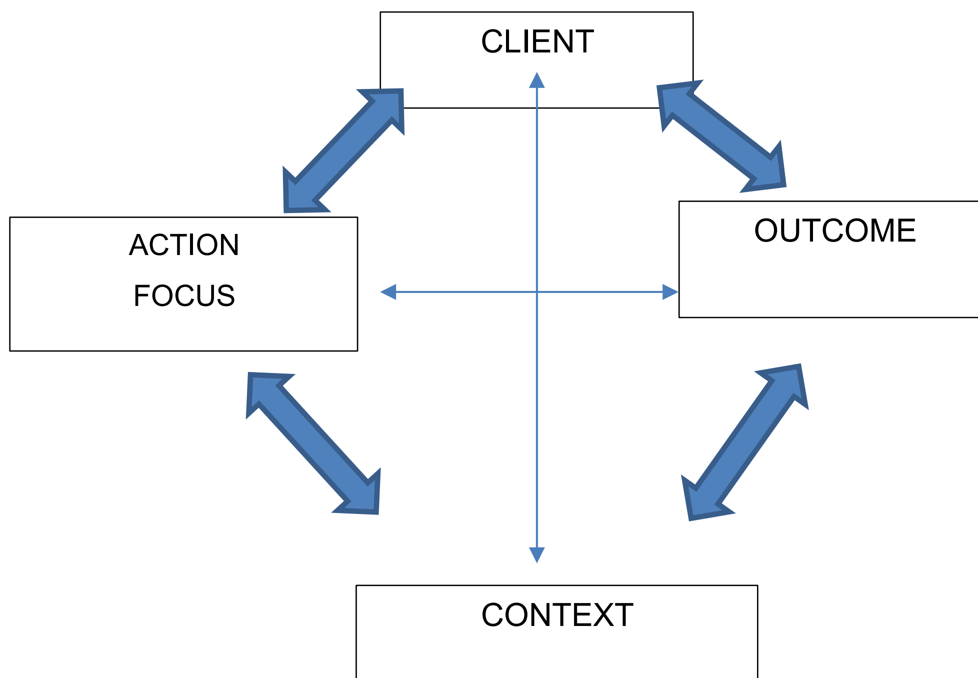



**Figure 3.4: Diagrammatic representation of SROM constructs**

The SROM construct is a dynamic model that suggests how healthcare research development and contextual factors influence nursing care results. It is flexible because, depending on the structure of the study design, the phenomena being measured may be assigned to one of the four constructs at various periods. As a result, since it reflects the four-nursing metaparadigm of person, health, environment, and nursing, SROM provides a framework for developing nursing knowledge.

## 3.7 RESEARCH MODELS

Research models basically characterise the relationship or interaction between research and its various models (Becker et al., 2012: 4). In this regard, the knowledge-driven paradigm implies that expert research leads to research interaction. The problem-solving paradigm believes that research follows policy and shapes research priorities. As a result, research provides empirical information upon which policymakers may base their judgments and choices.

The interactive model depicts research as mutually reinforcing. According to the political/tactical paradigm, the research agenda is politically driven, and policy results from a political process. If research does not correlate with politicians' answers, it might be used as political ammunition or disregarded. The mere fact that research is being conducted is often more crucial for political and tactical considerations than the results themselves. As a result, research is sometimes seen as a political endeavour.

According to the enlightenment model, research indirectly serves policy by addressing the environment where choices are made and giving a larger framework for understanding and explaining procedures (Becker et al., 2012:4).

For health systems research to be most successful, Becker et al. (2012: 4) argue that research should give both directional inputs (to introduce and advance research) and corrective inputs (to revise a policy that is headed in the wrong direction). While doing so, remember that research's function is that of a facilitator (shaping policy), not that of a decision-maker (making policy). Nevertheless, the policymaker or implementer remains the driver in making judgments on topics such as speed, resources, and diversions in the case of undiscovered hurdles or new needs that may unexpectedly call for a change of direction.

## 3.8 RESEARCH AND PRACTICE

Nurses are becoming more popular to be required to use evidence-based practice (EBP). Polit and Beck (2012: 5) describe EBP as utilising the best clinical evidence to make patient care choices. Clinical decision-makers must be professionally responsible to their customers, necessitating incorporating research. Knowledge about a subject grows throughout time as the study is undertaken. In turn, knowledge is applied to varying degrees and at different speeds. Evidence-based practice is described as integrating the most recent research findings with clinical skills and patient requirements to deliver high-quality, cost-effective healthcare. As a result, the most acceptable research evidence is information developed from high-quality study results to solve a practical issue (Ellis, 2016: 5).

The evidence-based practice approach implies that it is practicable and desirable to base practice on knowledge of what actually works. Many variables influence the amount to which research may inform professional practice. Research not brought to the notice of experts or policymakers cannot be used to inform their decisions. It is crucial to determine whether the research impacts on practice, based on how such research is distributed and presented, and what people do with it. Practitioners must be dedicated to the concept of evidence-based practice to take notice and utilise evidence as to the foundation for practice (Becker et al., 2012: 4). When research and practice are discussed, it is assumed that there is a significant benefit for policy-making and professional intervention when research informs these activities.

According to Burns and Grove (2009: 6), a collaborative effort is necessary for researchers, policymakers, and consumers to synthesise the best research findings to produce standardised standards for clinical practice. Research knowledge is crucial for describing, understanding, predicting, and managing nursing phenomena. Nurses may explain current nursing practice challenges, find new information, and raise comprehension of conditions via research, allowing new knowledge to be utilised to improve practice. In addition, nurses may base their practice on research by planning nursing care, forecasting likely outcomes, and implementing measures to encourage desired behaviour. The translation aims to increase the ties between research and practice (Ellis, 2016: 8). According to this technique, the study results should influence research and practice.

However, it has been recognised that evidence is often ineffective in shaping research and practice and that research is frequently not focused on policy needs. The WHO aims to foster collaborative ties between researchers and others who utilise research results, such as policymakers. The process through which research evidence is translated into policy, practice, and product creation is known as research translation. Furthermore, enhanced communication approaches are required to distribute health information and evidence to various target groups (WHO, 2012: 7).

### 3.9 UTILISING RESEARCH TO INFORM POLICY

The action of putting research-based knowledge (science) into practice is referred to as research utilisation (Squires et al., 2011: 5). There are two primary methods to utilise research: informing health policies, strategies, and practises, especially within health systems; and developing new tools (drugs, immunisation devices, and other goods) to promote health. The populace can be informed using research, and public attitudes and habits may be altered. However, there is agreement on the disparity between what present health systems achieve and health systems' needs. This is due to a failure to synthesise and utilise existing research findings to improve treatments and the operation of healthcare systems (Walugembe et al., 2015: 7).

Scholars of research utilisation often worry whether nurses employ the best available scientific knowledge to influence policy and clinical practice. The research-practice gap refers to the disjuncture between the availability of research findings and their use in practice (Squires et al., 2011: 6). According to Senkubuge and Mayosi (2012: 4), South Africa is emerging as Africa's leader in research synthesis and use. However, that argument is based on other health professionals since there is inadequate

understanding of the situation of South African nurses in terms of using research to guide policy. The authors also indicated that information gained by health research is beneficial to the public on a global scale since it leads to the formulation of evidence-based policies and an improvement in the functioning of health systems (Senkubuge & Mayosi, 2012: 6). A well-functioning health system must develop, receive, and utilise research-based information and research products to satisfy national or global benchmarks such as the SDGs. However, South Africa has no officially agreed-upon structure for research use. National planning, organisation, and implementation of policy research, health innovations, programmes, and practise are almost non-existent (Senkubuge & Mayosi, 2012: 5).

## 3.10 FACTORS INFLUENCING THE USE OF RESEARCH IN POLICY

Decisions based on scientific findings may be expensive, but they may also save lives. However, effective initiatives are often not translated into policy or practice. For example, there is no clear proof of highly effective and acceptable therapies (Fernandes & Mariano 2007:2). Various elements impact the application of research results in every context. A study on incorporating research results into policy was carried out in South Africa, Mozambique, and Zimbabwe. It was discovered that the interaction between policy and research is complicated. The use of research to inform policy differed significantly between nations, depending on whether the topic was identified as a policy concern and put on the policy-making agenda. Policy-makers' have divergent views insofar as their willingness to accept and use study results is concerned. This implies that if policymakers have buy-in and are open to new ideas, the evidence is then certainly useful.

The application of research is also contextual; it is determined by the study's usefulness in that field. In some instances, local research and experience guide policy (Fernandes & Mariano, 2007: 1). Interest groups also have a role. Non-Governmental Organisations (NGOs) such as the Medical Research Council (MRC), for example, have a favourable impact on the study's profile and results. Funded research is more likely to be recognised, and politicians are more likely to accept suggestions than non-funded studies done by people. This might be because of political dangers. Policymakers face criticism for failures that are connected to or unrelated to policy. The integrity of both the evidence and the researcher is essential in applying research. Access to information resources, such as the Internet, has also been shown to impact research use (Hanney & González-Block, 2011: 4).

### 3.10.1 Individual Factors

Personal characteristics such as age, gender, ethnicity, and culture may influence a person's engagement in healthcare research development (Meltzer et al., 2020: 6). These personality traits are innate and determine the nature of nurses' knowledge and handling of their surroundings. In this study, these individual elements impact the nature of nurses' comprehension of their environment to engage in healthcare research development in respect of HIV and AIDS in Nigeria. In addition, individual characteristics such as knowledge, skills, attitudes, and behaviour can impact nurses' perceptions of the importance of research in the healthcare system (Meltzer et al., 2020: 7). In this study, nurses' knowledge and comprehension of research development in healthcare aid in shaping their engagement in research development in the context of HIV and AIDS in Nigeria.

### 3.10.2 Interpersonal Factors

Interpersonal variables are based on individuals' connections with others in their immediate or secondary environment, such as family members and co-workers (Ariyo et al., 2017: 3). Interpersonal interactions in this research setting were based on elements impacting social networks in healthcare by the role of nurses and employers. Workplaces, hospitals, and community health centres. For Iinstance, need legal procedures to impart institutional principles as well as socially accepted standards and etiquette for interpersonal connections on a larger scale (McLaren & Hawe, 2005: 7). Regarding the present research, nurses must engage with patients or consumers of healthcare services in a professional and socially acceptable way.

### 3.10.3 Organisational Factors

Organisational elements are essential connections outside an individual's naturally inhabited surroundings (Ariyo et al., 2017: 5). In Nigeria, organisations in both the public and private sectors include (but are not limited to) hospitals, community health centres, and primary healthcare posts. Each organisation establishes its compliance norms and regulations within the country's legal system (Boateng et al., 2018: 5). For the objectives of this research, organisational considerations include the management of healthcare facilities to guarantee that all HIV and AIDS patients get excellent healthcare from competent nurses in well-equipped and staffed healthcare facilities.

The failure of nurses to participate in excellent healthcare research development in HIV and AIDS was most likely to promote public suspicion of the level of healthcare services given at such healthcare facilities (Boshoff & Gray, 2004:8). In this context, organisational growth has become a necessity for policymakers in the macro-healthcare system (De Jager & Du Plooy, 2007: 5). As a result, organisational and systemic changes should be made to increase nurses' engagement in developing healthcare research with regard to HIV and AIDS in Nigeria, particularly at State-funded tertiary institutions.

### 3.10.4 Community Factors

Community elements are exogenous (affected from outside) and are based on the nature of the individual-society connection (Conmy, 2018: 4). At this level, culture and ideology are considered significant influences. In most civilisations, community characteristics establish social cohesiveness, cultural norms and values, and democratic ideals (Altuntu, Ank, & Ege, 2018: 6). Furthermore, since it is not static and evolves with time as societies evolve, this level substantially influences human development. To increase research development by nurses, community variables in this study should also concentrate on the political willingness and courage to improve nurses' engagement in healthcare research development with regard to HIV and AIDS and HIV and AIDS patients' socioeconomic status (Jobson, 2015: 8).

### 3.10.5 Policy Factors

The availability and use of existing laws to regulate organisations and persons inside such organisations were policy issues (Manyisa & Van Aswegen, 2017: 4). Policy variables also influence the character and quality of organisations and institutions' leadership, management, people, equipment, and financing. In this light, policy considerations may be considered inseparable from organisational factors, which rely on political courage and socioeconomic ideology for self-preservation (Lindebaum et al., 2017: 5). Policy considerations in this study were decision-makers abilities to help nurses fulfil their involvement in healthcare research development concerning HIV and AIDS in Nigeria.

### 3.10.6 Nurses' Research Utilisation

The proliferation of professional standards related to research utilisation, scholarly literature supporting the positive outcomes of research utilisation, and professional organisations' commitment to research utilisation within the profession has increased the focus on research utilisation within the nursing profession (Dagne & Tebeje, 2021: 1). Nursing practice is directly influenced by ethical, professional. Practice standards are developed, published, and overseen by nursing regulatory organisations since graduate nurse's ought to be ready to satisfy the standards. The advancement of research may also indicate efforts to revolutionise the nursing profession and demand changes in the practice environment (Dagne & Ayalew, 2020: 1).

The use of research reflects a determined effort within the nursing profession to promote and integrate research as an essential component of nursing practise (Dagne & Tebeje, 2021: 1). As the objective goal of learning activities, many contemporary studies target fundamental research knowledge and effectiveness (Jabonete & Roxas, 2022: 1). However, some researchers contend that, while understanding and efficacy are essential for research utilisation in nursing, knowledge without the values, attitudes, behavioural norms and general practice grounded in an ongoing commitment to research implementation will fall short of meeting the standards for research utilisation in practice (Dagne & Ayalew, 2020: 1).

### 3.10.7 Culture and Acculturation

Acculturation cannot be understood without first discussing culture. Culture is a process framed by "historical, social, political, and economic perspectives" (Schwartz et al., 2019: 237). For the constructivists, culture is viewed as an organic process that is constantly changing and developing (Schwartz et al., 2020: 4). Culture is a socially produced notion, multidimensional, and bound in the lived understanding of people, according to constructivist ontology (Schwartz et al., 2019: 237). A culture comprises three essential standard components vulnerable to change through time: knowledge; values, beliefs, norms; and artefacts. (Schwartz et al., 2020: 5) Individual members enact culture via problem-solving and engagement within their cultural setting, and these fundamental components are part of it (Schwartz et al., 2020: 4).

The acculturation to nursing culture reflected in "the belief systems, daily behaviours and interactions, the artefacts that participants generate, the use individuals make of

time, and the distribution of decision-making authority" is of particular relevance in nursing research development (Dagne & Ayalew, 2020). This culture must represent the professional practise organisation hopes for nurses to create in nursing research development. The purposeful and intentional pattern of "planning, practises, and assessment" that underpins the enactment and experience of research development culture should be the formation of values, attitudes, norms, and objectives that underpin the implementation and understanding of research development culture (Dagne & Ayalew, 2020: 2).

Individual socialisation within professions is a vital result highlighted in the healthcare literature (Schwartz et al., 2019: 238). Many authors emphasise the function of role models, clinical educators, and nursing professionals in socialising nurses into "the professional role (skills, knowledge, behaviour) and values, attitudes, and objectives important to the profession" (Schwartz et al., 2020: 4). Acculturation has this developmental goal. Still, it differs from socialisation because it emphasises culture more. Acculturation results in developing professional values, attitudes, and standards constrained within a cultural framework. This formation is a dynamic experience that is both formative and transactional (Schwartz et al., 2019: 239). Nursing organisations that set standards for practice and education have stated their dedication to research use in nursing. Therefore, Healthcare organisations must encourage nurses to internalise the values, attitudes, and norms represented in these standards to implement and support research usage as part of the nursing professional culture.

### 3.10.8 Individual Research Utilization Factors

Researchers have identified individual factors that affect research utilisation. Educational experiences, professional socialisation, participation in research activities, utilisation of information sources, and personal autonomy are among these aspects (Dagne & Ayalew, 2020: 1). From a comprehensive assessment of the literature on individual characteristics impacting research use, Dagne and Ayalew (2020: 1) found that only a favourable attitude toward research, in-service attendance, and the capacity to suspend firmly held opinions remained as important influential factors. According to Ofi et al (2018: 243), other potential essential individual qualities include nurses' values, abilities, and research awareness.

The empirically supported link between nurses' attitudes and values and their use of research has resulted in both a call for more research on the influence of education on the formation of these foundational attitudes and values and the inclusion of

research utilisation within professional and educational nursing standards (Ofi et al., 2018: 243). Therefore, the investigation of acculturation to research use must include efforts to build and implement good values and attitudes toward research utilisation in nursing practice. This investigation is an essential and relevant strategy for expanding the educational knowledge base that encourages research use.

### 3.10.9 Organisational Research Utilisation Factors

Nursing research is principally a social process that occurs within the clinical environment's culture (Jakobsen et al., 2019: 1). The organisational environment that influences research use is made up of a variety of official and informal components. Formal elements include established rules, processes, objectives, and resources that affect nurses' capacity to acquire and apply new research (Ofi et al. 2018: 244). Informal variables include the organisational embrace of further information and research in practice, as shown by factors such as openness, a participative decision-making culture, and learning orientation (Jakobsen et al., 2019: 1).

New nurses should graduate from education programmes with an articulated value for research usage and the expertise required to effectively apply evidence into practice (Ofi et al. 2018: 244). Socially built organisational norms connected to professional culture and informal acculturation to the profession inside nursing units, on the other hand, have the potential to undermine and disrupt new graduates' competence, effectiveness, and motivation to adopt research usage (Jakobsen et al., 2019:1). Social construction and social interaction are both obstacles to and facilitators of research consumption (Jakobsen et al., 2019: 1). According to Ofi et al. (2018: 244), organisations implementing research usage methods are faced with unfavourable attitudes toward research use as well as a lack of knowledge of its significance, both of which are prominent in contemporary nursing organisational contexts.

Individuals who have developed positive values, attitudes, and norms experienced and internalised in undergraduate research utilisation rely on organisational elements that support research utilisation, such as administrative support, the presence of research champions, and a cultural focus on research implementation (Jakobsen et al., 2019: 2).

Developing and internalising positive values, attitudes, norms, and knowledge connected with research used throughout the undergraduate curriculum may be linked to value enactment after graduation. According to Jakobsen et al. (2019: 1), to be

prepared to overcome settings where research usage is not the norm, nurses must develop and implement attitudes, beliefs, and behaviours that promote research utilisation. Several research has looked at the effects of nurses' acculturation and socialisation into professional nursing practice. This study focuses on nurses' compliance with organisational cultural values, attitudes, and conventions within professional nursing units (Jakobsen et al., 2019: 1).

This study's results suggest that clinical and educational experiences may not mirror the values and standards promoted in general nursing practice. When nurses are in diverse professional settings, they approve and comply with the professed ideals. Still, they do not entirely absorb these values since they are not shared throughout nursing profession contexts. Consequently, nurses are more likely than in other study settings of nursing practice to adhere to values, attitudes, and norms exhibited in practice learning contexts.

The internalisation of nursing practice culture within clinical experiences is not a passive process; instead, nurses engage in the process of acculturation in which they "construct and give meaning to their practice experiences" (Jakobsen et al., 2019: 2). Nurses who engage in the acculturation process shaped by a commitment to research utilisation as part of nursing practise may more readily adopt positive acculturation. Developing and internalising positive values, attitudes, and norms associated with research use within nursing practice settings may be connected to resistance to post-graduation internalisation of values, attitudes, and standards that do not represent professional competence.

Implementing educational practices aimed at training students who are sceptical of the acquisition of values, attitudes, and norms that do not represent a commitment to research may result in professional nurses who are more capable of utilising research. According to Jakobsen et al. (2019: 1), these strategies are intended to mediate cultural values, attitudes, and norms that do not support research utilisation while contributing to change that helps evidence-informed practice, contexts, and social processes to research utilisation.

### 3.11 THE LINK BETWEEN POLICY AND RESEARCH

According to Walugembe et al. (2015: 1), policy and practice must rely on the most proper research and ensure safe and effective treatment is provided based on current, scientifically sound information. As the emphasis on research uptake grows,

researchers, communication professionals, and benefactors feel a moral and ethical need to work to guarantee that research is used to shape policy and practice. The WHO's research for health strategies (adopted by the 63rd World Health Assembly in 2010) is founded on the assumption that policies and procedures supporting healthcare should be based on the most important scientific information in all nations. The high-quality research results should be accessible to everyone, including decision-makers. They must also be presented in ways that effectively influence policy, public health, and healthcare decisions (WHO, 2012: 4).

### 3.12 SUMMARY

This study integrated the social-ecological model, the paradigm of structure, process, outcome, disease diffusion theory and system research organising model in order to show the power inequities inherent in nursing for the purpose of liberating nurses from negative organisational constraints that prevent them from making reasonable contributions to research and policy formulation (Varpio et al., 2019: 994). Such a coordination of theoretical and conceptual approaches in this chapter is viewed as an attempt to contribute to knowledge by addressing a plethora of challenging ideas that nurses often find unclear in the context of HIV and AIDS transmission in Nigeria. To that effect, the chapter has presented the theoretical framework as a product of the existing literature concerning the fundamental issue that the study investigated. To a larger extent, the theoretical framework could then be regarded as the overall image or vision that influenced the researcher to undertake the study in the first place. In this regard, the theoretical framework reflects the researcher's multi-dimensional characterisation of the study (Varpio et al., 2019: 993). It is in that regard, that the integrated framework highlights the intricate interplay of power and recommends actively engaging nurses in research and policy formulation to eliminate HIV and AIDS transmission in Nigeria.

This study employed critical social theory and power theory to illuminate power inequities and free nurses from negative organisational constraints that prevent them from making reasonable contributions to research and policy formulation. This integrated framework reveals the subtle interplay of power and prescribes strategies for actively engaging nurses in research and policy formation to eliminate HIV and AIDS transmission in Nigeria. The theories are applied to investigate factors that keep nurses silent in the face of obvious inequalities in decision-making processes and research involvement. Critical social and power theories are thus useful in

investigating power dynamics and the underlying structures (cultural, social, economic, and political) that influence contexts, contents, and processes in the health care system.

The next chapter presents and discusses the research methodology of the study.

## CHAPTER 4
## RESEARCH METHODOLOGY

### 4.1 INTRODUCTION

The previous chapter presented various theoretical frameworks and conceptual models and their applicability to the present study. The current chapter on the other hand, presents and discusses the overall methodological context that guided and informed the research process as a whole. In that regard, the chapter locates the interpretivist-constructivist paradigm as the foundational research philosophy that framed the research process. This is followed by the Participatory Action Research (PAR) and its application in nursing as the core research variable in this study. The chapter further presents the study's sampling domain, the data collection and analysis processes and procedures, as well as the trustworthiness concerns and ethical considerations applicable to the study.

### 4.2 RESEARCH PARADIGM

The research paradigm relates to the particular philosophical perspective or worldview that influenced the researcher and study processes in pursuit of understanding the investigated phenomenon (Alvi, 2016: 12; Efron & Ravid, 2019: 27). Such a worldview (perspective or paradigm) could be viewed as either subjective or objective, depending on factors such as the researcher's own assumptions, personal belief systems, values and belief system/s, understanding of the nature of reality and the environment (Alvi, 2016: 12). The assumptions themselves could be ontological (based on the structure of knowledge), epistemological (based on the nature of knowledge), or axiological (based on the ethics or morality of knowledge generation or production) (Alvi, 2016: 13; Savin-Baden & Major, 2013: 17).

Furthermore, an ontological assumption emphasises the nature of reality, especially its socially created character, while an epistemological assumption suggests a close interaction between the researcher and the people being examined (Haven & Van Grootel, 2019: 237). The value-laden character of axiological assumptions are a demonstration of the participants 'views and preconceptions, in addition to the results of the study (Denzin & Lincoln, 2017: 26).

According to Alvi (2016: 12), Efron and Ravid (2019: 27) and Haven and Van Grootel (2019: 233), research paradigms or perspectives are categorised into three commonly used types, namely: positivism, constructivism or interpretivism, and pragmatism.

Positivism is mostly adopted by quantitative researchers and is mostly informed by the numerical or statistical approaches as the most reliable mechanisms to understand the realty and truth of a phenomenon objectively (Efron & Ravid, 2019: 27). The proponents of positivism credit this perspective on account of the distance that exists between the researcher and the researched, which convincingly allocates a degree of objectivity since the researcher does not engage himself/ herself in the material circumstance or conditions of the participants. Meanwhile the pragmatist research paradigm is philosophy in research that encapsulates both the qualitative and quantitative research approaches on the basis that there are multiple realities concerning the truth of a phenomenon that can be known practically without any preconceived assumptions because realty itself is not stagnant, but flexible (Haven & Van Grootel, 2019: 233).

#### 4.2.1 The Constructivist/ Interpretivist Research Paradigm

According to Creswell (2018: 107) and Leedy and Ormrod (2019: 17) constructivism or interpretivism is a collective depiction of a group of research perspectives or paradigms known as an anti-positivist school of thought that encapsulates perspectives such as ecological and phenomenological perspectives. Constructivism entails that realty can best be constructed from the subjective context and perspective of those who experience the very reality of a phenomenon (Creswell, 2018: 107). Meanwhile, the interpretivist paradigm upholds that the reality and truth of an investigated phenomenon are best constructed and interpreted or expressed by the very people or individuals experiencing the manifestation and implications of the investigated phenomenon in their own words, feelings, and perceptions (Patten & Newhart, 2018: 17). Furthermore, these experiences are expressed and captured in the very ecological surroundings or environment to which the individuals are very familiar. Most importantly, the phenomenological paradigm ensures that the cultural conditions and circumstances of the individuals (who are nurses in this study) are captured and fully understood by the investigator or researcher (Patten & Newhart, 2018: 17; Rubin & Babbie, 2017: 53).

In this study, the constructivist-interpretivist research paradigm or worldview was adopted on account of its facilitation of the non-statistical or qualitative interpretation and understanding of strategies to enhance nurses' participation in healthcare research in the context of HIV and AIDS transmission in Nigeria. Most importantly, the constructivist-interpretivist research worldview enabled the researcher’s data

collection through interviews by means of which the nurse participants were able to express their views in their own words and in a naturalistic environment with which they were very familiar. This was accomplished by affording nurses the chance to react in their own words and provide relevant practice-related scenarios to justify and further explain their reactions or responses (Holloway & Galvin, 2020: 2).

## 4.3 RESEARCH DESIGN/METHODOLY AND APPROACH

The research design or methodology relates to the systematic processes, plans, strategies and procedures emanating from the researcher's adopted worldview or research paradigm/ perspective (Patten & Newhart, 2018: 22; Holloway & Galvin, 2020: 2). Furthermore, the research methodology outlines the study's design and overall management of the relevant or associated activities intended to integrate the research problem, aim, objectives and questions on the one hand, as well as the sampling, data collection, and analysis procedures on the other, in order to inform the reader about how the study was undertaken (Polit & Beck, 2021: 391; Rubin & Babbie, 2017: 58).

### 4.3.1 Qualitative Research Design Approach

Yin (2018: 6) asserts that the research design is the sound plan for traversing what we know to get to what we want to know. In this study, the non-numerical or non-statistical qualitative, exploratory, and descriptive research approach or strategy was applied for better understanding of nurses' present engagement in healthcare research formulation in Nigeria's HIV and AIDS transmission and management. Brink, Van der Walt, and Van Rensburg (2018: 199) intimate that qualitative research aims to identify meaning, expose different realities, and not necessarily to generalise to a specific demographic context. As a result, informants with a high potential for information richness should be chosen (Polit & Beck, 2021: 515). From the point of view of Silverman (2019: 95), the qualitative research design approach is emblematic of a systematic way to document and interpret actual events and circumstances, and carried out to comprehend people's unique, dynamic, and comprehensive essence.

As mentioned earlier in respect of the study problem, little is known about nurses' engagement in healthcare research, particularly in HIV transmission management in Nigeria (Asuquo et al., 2019: 3). Therefore, the exploratory and descriptive approaches enabled the researcher to learn about nurses' attitudes, beliefs, and reactions in advancing HIV research in Nigeria. Furthermore, exploratory and

descriptive aspects are enhancement tools for addressing the rationale for the research design, data collection techniques and *how* the data was analysed (Yin 2018:6). Moreover, the exploratory and descriptive designs ensure that the researcher used the rigour necessary for scientific research and knowledge. In this regard, the exploratory aspect focuses on the *what* and *where* questions to provide a holistic picture of a particular connection, circumstance, or social scene; while the descriptive design aims at answering the *how* and *why* questions (Silverman, 2019:3).

Therefore, justification for the choice of using a qualitative approach was that the research would provide an in-depth knowledge of the significance of social interactions between nurses and their clients regarding HIV and AIDS transmission (Leavy, 2022: 4; Silverman, 2019: 95). Furthermore, the researcher intends to present a comprehensive context of nurses' views, attitudes, and knowledge in relation to research-creation (Brink et al., 2018: 199). Creswell (2018:15) intimates that the qualitative design is a dynamic approach to identify the researcher's knowledge claims (theoretical viewpoint), research techniques, and data collection and analysis processes that were used in respect of the philosophical approach or perspective that guided the searcher and his/her assumptions.

#### 4.3.1.1 Participatory Action Research (PAR) Design

Participatory action research (PAR) is a pluralistic approach for developing knowledge and change in society, rather than a monolithic collection of ideas and procedures (Chambers, 2018: 297). Participatory action research emanated from action research to become a technique for interventions, development, and change within communities and organisations (McNiff & Whitehead, 2017: 24). The PAR also evolved from experts' dissatisfaction with old methods that failed to fully address the primary concerns of marginalised groups (Dickson, 2020: 9). The PAR's primary purpose is to inspire people to take collective action for the purpose of achieving change (McNiff & Whitehead, 2017: 23). When individuals do things by themselves, they learn more effectively and are more inclined to actualise what they have learnt into practice (McNiff & Whitehead, 2017: 22). For O'Brien (2021:6), PAR is the ideal research technique when a holistic approach to solving current issues is needed, especially when there is insufficient knowledge on a research topic.

Leavy (2022: 16) and McNiff and Whitehead (2017: 22) ascertain that the choice of any qualitative research design approach or strategy is determined by factors such as the nature of the research questions being addressed because the case study occurs

in a natural setting and founded on real-life events, resulting in a thorough and complete explanation of a phenomenon. Furthermore, participatory action research allows participants to engage in the study process and improve knowledge acquisition in respect of the economic, social, and political structures or contexts that impact nurses' engagement in research formulation and enlisting them as change agents (McNiff & Whitehead, 2017: 23).

Smith and Romero (2020: 4) and Schwandt (2021: 6) assert that PAR is characterised by three primary attributes that distinguishes it from other research practices and designs, such as the following:

- increasing researcher-participant cooperation and collaboration for issue identification, technique selection, data collecting, and utilisation of findings.
- applying democratic principles and ideals, and
- generating knowledge to increase awareness creation and collaborative action. On the other hand, some scholars characterised PAR as a research strategy that uses a three-fold education, social inquiry, and action model to generate social knowledge with oppressed people.

*4.3.1.1.1 Advantages and disadvantages of PAR*

As a recognised form of social study, participatory action research helps both participants and researchers by integrating research, education, and collective action (Park et al., 2019: 45). Furthermore, the critical awareness produced by PAR's teaching and knowledge-generating (i.e., inquiry) components allows the researcher and co-researcher (i.e., the group of participants) to become an important instrument or catalyst for societal change. This social change manifests itself in three distinct ways: critical consciousness development in both participants and researchers results in a transformation that can change the lives of the researched and transform societal structures and relationships (Bennet 2018:6). Furthermore, knowledge offers an incentive for a community or organisation to tackle real issues, ultimately improving a fairer and more equal society (Akunja et al., 2022: 12).

PAR has an unrivalled potential to transform its participants into researchers (McNiff & Whitehead, 2017: 11). Participation in PAR as a group also increases self-awareness and sensitivity of the situation. Participants gained trust, self-confidence, and awareness of resources to help them alter their position. They engage the group with a specific PAR goal to create realistic, workable results (Walter, 2019: 23). The humanistic approach is strengthened by including everyone in solving a social issue (Tagum, 2018: 5). According to Hall (2018: 8), PAR may be used as a powerful and

manipulative "tool" for persuading people who disagree with the majority's beliefs to accept them.

Despite the benefits outlined above, the research approach has some drawbacks, such as a lack of data and identified leader disagreement; some may suffer isolation, increased unhappiness, a lack of time, a loss of scientific objectivity; some may become manipulative, drop out, create fractions, develop a superiority complex, and lose track of time. Because there is no leader, democratic methods and group involvement may fight for research goals, according to Walter (2019: 45). Surprisingly, categorising group members based on shared interests lead to disputes about the issue and how to solve it. Some members may have opposing viewpoints on the subject at hand. According to Bennet (2018: 23), some participants may be shunned by their community due to their engagement in the PAR study.

Furthermore, Cornwall and Jewkes (2018: 11) argued that involvement in the study might lead to greater dissatisfaction as a result of increased consciousness of oppressed people by their oppressors. A typical drawback in PAR is the extra barrier of time to research involvement, even in the case of group members' enthusiasm in the research endeavour, research-related activity is time-consuming (Cornwall & Jewkes, 2018: 4). The authors explained that most oppressed individuals (those who are economically depressed) are more likely to be obsessed with acquiring the needs of existence than with engaging in research activities.

According to Asuquo et al. (2018: 23), working closely with study participants may lead some researchers to lose their scientific impartiality regarding data processing. Instead of an impartial researcher reporting on study results, the researcher becomes an advocate for people's causes. Furthermore, some essential leaders may attempt to influence the research agenda to further their interests; they must watch for such manipulative intents to become necessary to achieve stated objectives (Cornwall & Jewkes, 2018:3). Tagum (2018: 2) remarked that organising many participants to attend multiple gatherings is a challenge. Many participants may drop out throughout the study; new members must undertake re-sensitisation.

Furthermore, the formation of factions within the participation group is predicted in PAR relationships. These may prevail in class conflicts, ethnicity, and factionalism, all of which directly influence the participatory research process (Pigozzi, 2022: 4). The author also mentioned that participants might acquire a sense of "superiority" over other members, resulting in unwarranted enmity even from people who were meant to

gain from the research. Finally, according to Walter (2019: 5), the PAR process has a flexible timeframe since it changes based on the group's needs. As a result, knowing when the issue is fixed is impossible, which is a crucial drawback of using PAR.

*4.3.1.1.2 Relevance of PAR in nursing*

The relevance of the PAR is presented in this section in both the generalistic and specific contexts. The former situates PAR in a broader scope outside of this study, while the latter locates PAR with regard to this study in particular. PAR has demonstrated its suitability as an appropriate research approach for nurses attempting to bridge the theory-practice divide due to its participatory aspect (Glasson, Chang & Bidewell, 2018: 12). It has been frequently used to evaluate care models and improvements in nursing practice (Glasson et al., 2018: 5). The cyclical reflective character of PAR appeals to nurses because it is akin to the nursing process, which incorporates several methods to satisfy client requirements and encourage nurse practitioners' autonomy (Pastor-Montero et al., 2018: 4). Its collaborative principles can foster transformation in education and practice while successfully addressing the theory-practice divide (Glasson et al., 2018:3). Glasson et al. (2018: 4) utilised PAR to create, implement, and evaluate a model of care to enhance nursing care quality to critically ill patients. Pastor-Montero et al. (2018: 5) used PAR to enhance the care provided to parents with perinatal loss, while El-Sadr et al. (2018: 8) applied the PAR to mobilise black women's improved healthcare access.

It is also worth noting that PAR is classified into four categories, according to O'Brien (2021: 2): classic, contextual, radical, and educational action research. The traditional method integrates field theory principles and practices, and group activities are conservative, sustaining the status quo in organisational power structures. Contextualisation includes reconstituting structural linkages among players in a social setting, enabling social reform by agreement. The revolutionary method, which is prominent in liberation-oriented organisations and international development arenas, argues for transforming society by strengthening society's marginalised sections (O'Brien, 2021: 2). This is also referred to as crucial PAR (Kemmis & McTaggart, 2020: 4). The radical kind of PAR is employed in this investigation. Educational action research, the fourth category, was predicated on John Dewey's notion of educators' active roles in community problem-solving.

The PAR has been routinely used to persuade nurses to take part in studies. For example, Fournier, Mill, Kipp, and Walusimbi (2017: 4) utilised PAR to offer nurses a voice via collective practice reflection, helping them make sense of their experiences

and improve the conceptions of their responsibilities in HIV and AIDS care. Similarly, Richter et al. (2017: 4) utilised PAR to involve nurses in HIV and AIDS research formulation in Sub-Saharan Africa and the Caribbean. El-Sadr et al. (2018: 3) also employed a community-based PAR method to actively include aboriginal nurses in eastern Canada in researching work-life concerns. Loewenson et al. (2019: 4) observed that health systems research is an essential source of information for determining routes and strategies for reaching millennium development objectives.

Flores et al. (2019: 5) utilised PAR to determine whether public policies and resources addressed local access to healthcare by encouraging cooperation between rural communities and front-line health professionals. Researchers in Guatemala revealed that marginalised communities might scrutinise governmental policies that require proper responses from local and federal governments (Loewenson et al., 2019: 36). As a study approach, PAR enhances communication between healthcare professionals and patients. As a result, PAR serves as a viable study tool for developing healthcare systems by uncovering unrecognised health problems in communities, work-related difficulties, and concerns among health personnel (Loewenson et al., 2019: 35). This component corresponds to Habermas (2018: 2), who utilised language communication to achieve agreement in a non-coercive context.

*4.3.1.1.3 Relevance of PAR in the study*

The researcher used PAR as a methodological framework for five key reasons in this research. For starters, PAR is utilised to mobilise nurses and healthcare stakeholders who are not nurses to assume collective research leadership in the healthcare system. The second idea is that the researcher and the participant should work together. As a necessary component, PAR enables the participant to be a complete subject in the research process rather than only a research object (McNiff & Whitehead, 2017: 8). Thirdly, to fully understand the level of nurses' engagement in research, it was vital to acquire stakeholders' opinions on reducing HIV and AIDS transmission in Nigeria. The third component is the liberation-oriented component, which enables participants explore how cultural, economic, and political forces influence and restrict their daily practices and discover techniques for liberating themselves from such constraints.

Fourthly, the critical component allows for a critical evaluation of the social environment and reveals how power discourses and social ties may challenge and re-create unjust and useless behaviours. This careful analysis shows previously undisclosed power imbalances in the healthcare system. The last component is the action or change component, which serves as the focal point of the process. The

primary concept is for participants to collaborate with the researcher to identify facilitators of action. According to McNiff and Whitehead (2017: 4), various responsibilities may be adopted by the researcher and the participant for cooperation, necessitating early explanation. Such roles include participation as researchers, problem solvers, and establishing a participants' network as a knowledge-sharing platform (Kemmis & McTaggart, 2020: 3). Researchers may also become collaborators or participants (O'Brien, 2021: 3). Participants in this study contributed to the clarification of the research questions and the whole research process, which included data analysis and assessment of the research results.

The researcher established relationships with all participants by attending introductory meetings with all participants prior to the start of the interview, identifying organisations of interest and introducing oneself. In addition, the researcher established a strong relationship based on mutual trust, which must be earned. The researcher-maintained transparency about the research interests and avoided over-promising the participants. The researcher formed collaborations that bring together people with diverse norms, assumptions, interests, resources, time frames, and working practises, all of which are nested within institutional structures and infrastructures that reinforce those assumptions. As one useful starting point, the researcher explicitly established working practices and areas of tension. By establishing relationships, researchers and participants were able to collaborate.

## 4.4 RESEARCH SETTING

A research setting is a place or location where the researcher exploring the context in which a phenomenon is placed, experienced and formed is a major component of qualitative research. Contextualisation is one of the criteria used to evaluate qualitative studies (Merriam & Grenier, 2019: 26). This might comprise a brief explanation of significant elements of a specific context to orient the reader, or it can be part of the analysis itself. The description serves as the basis for subsequent data conceptualisation (Merriam & Grenier, 2019: 26). This proposed setting is a prestigious hospital in Ijebu Ode, Ogun State, Nigeria, where the research was carried out in natural surroundings, namely, the healthcare facilities where registered nurses (participants) work. Figure 4.1 below is a general depiction of the research setting.

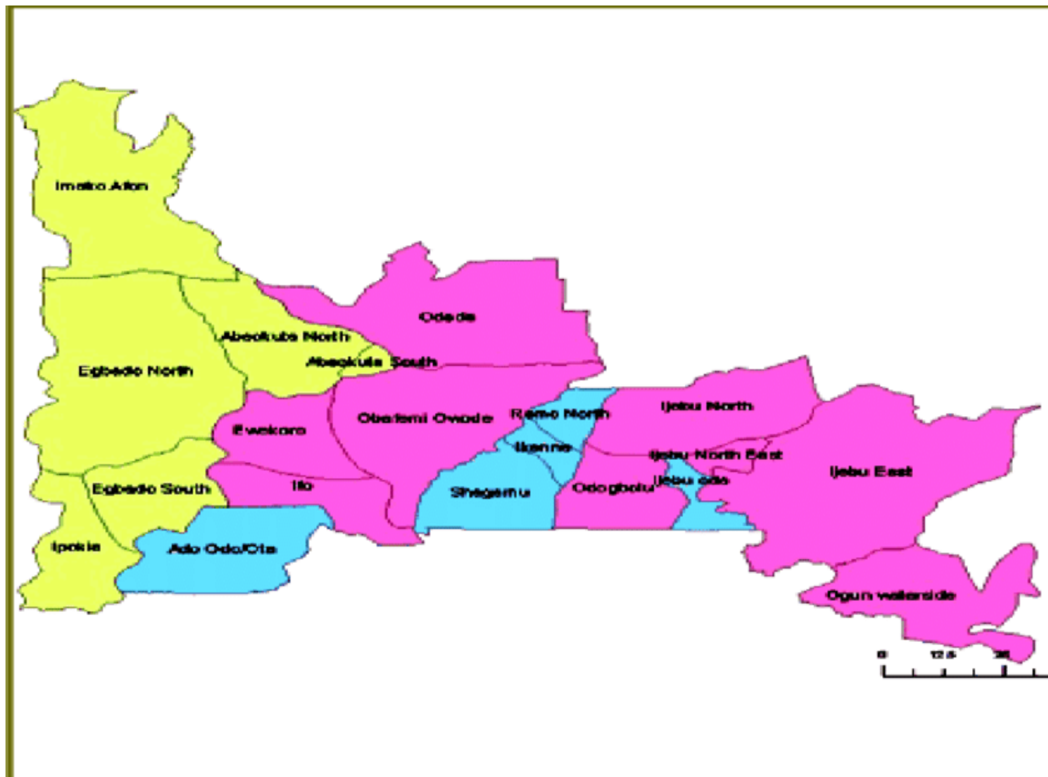



**Figure 4.1: Map of Ogun State of Nigeria showing the 20 Local government Areas**

The execution of the study at the above-cited research setting was undertaken after a proper ethical clearance had been granted by the College of Human Sciences Research Ethics Review Committee of UNISA (UNISA, 2016: 4). Abeokuta is the capital of Ogun State. Abeokuta North, Abeokuta South, Ewekoro, Ifo, Obafemi Owode, Odeda, Ijebu East, Ijebu North, Ijebu North-East, Ijebu ode, Ikenne, Odogbolu, Ogun Waterside, Remo North, Sagamu, Ado-Odo-Ota, Imeko Afon, Ipokia, Yewa North and Yewa South Ijebu Ode local government were employed for this investigation. These local government areas were used to choose the different segments of the healthcare system. Ogun State was selected for the research due to its high HIV prevalence of 7.1% (Federal Republic of Nigeria, 2018: 4). Ogun state was chosen for this research because the researcher had worked in the state and still has a connection with some professional colleagues. This research used scientific methods, and the findings could be applied to a larger group. Furthermore, this research is more reliable, as a paper trail supports the data analysis. As a result, informants with a high potential for information richness were conveniently chosen (Polit & Beck, 2021: 5).

## 4.5 STUDY POPULATION AND SAMPLING

A study population refers to a larger group from which the prospective participants are chosen for involvement in the study (Thanh & Thanh, 2020: 3). In addition, a study

population is viewed as a group of interest or reference point to the researcher on account of certain traits or characteristics that are in agreement with the requirements of the study in relation to its research problem and questions to be answered (Cassell, 2015). This study's primary population comprises nearly 200 registered nurses who provided nursing care at the selected hospital. A non-probabilistic, purposive sample of registered nurses was drawn from the general population to satisfy the study's eligibility requirements (Thanh & Thanh, 2020:3).

#### 4.5.1 Sampling and Sample Size

Sampling refers to the selection of a sub-set from a study population in order to represent the entire study population based on the representative group's possession of homogenous traits or attributes when compared with the larger study population from which it originates (Polit & Beck, 2021: 515; Thanh & Thanh, 2020: 12). Sampling in research is necessitated by the fact that it is not always possible to involve all members of any particular or representative group for involvement in the study due to financial and/or logistical reasons (Cassell, 2015: 35; Flick, 2020: 33).

On the other hand, the sample size refers to the total or actual number of participants who eventually took part in the study, notwithstanding the role of data saturation in obtaining all the answers required by the researcher (Cassell, 2015: 35; Flick, 2020: 33). Accordingly, the sample size in this study was 31 registered nurse participants, composed of 10 who were selected for involvement in the in-depth interviews, while 21were involved in three focus group discussions.

#### 4.5.2 Sampling Strategy

The sampling strategies (techniques or methods) refers to the mechanisms by which a subset or sample of the population was chosen to represent the entire study population based on the representative group's possession of homogenous traits or attributes when compared with the larger study population from which it originates (Flick, 2020: 33; Thanh & Thanh, 2020: 3).

In this study, the researcher opted for the non-probability purposive sampling strategy to choose prospective participants. Purposive sampling strategy is based on the assumption that the researchers' knowledge or judgment of the research population and its dynamics allowed the researcher to select the individuals in the sample (Holloway & Galvin, 2020: 5). Therefore, purposive sampling was used to discover

and choose nurses who are very informed and knowledgeable about the researcher's phenomenon of interest, as outlined in study objectives concerning the research problem (Palinkas et al., 2020: 4).

Furthermore, non-probability sampling strategies are credited for their objectivity, since there is no pre-determined assurance or probability of any prospective participant's involvement in the study ahead of its commencement (Palinkas et al., 2020: 4). Therefore, any possible researcher bias is prevented insofar as the possible selection of 'favoured' participants is concerned.

### 4.5.3 Sampling Criteria

In addition to the sampling strategy, sampling criteria pertains to the set of considerations or standards used by the researcher in the selection of prospective participants (Hennink, Hutter & Bailey, 2020: 28). Therefore, the sampling or selection criteria determine both the inclusion and exclusion of participants in the study in accordance with the presence (possession or eligibility) or absence (ineligibility) of the required traits or attributes that fulfil some aspect/ s of either the research problem or research questions (Hennink et al., 2020: 28; Silverman, 2019: 87).

#### 4.5.3.1 Eligibility Criteria

As alluded earlier, the eligibility criteria are the key determinants of the participants' eligibility or involvement in the study (Holloway & Galvin, 2020: 137-138; Hulley et al., 2022: 34). Accordingly, the eligibility criteria for inclusion in the study are the following:

- Permanent staff employed as registered nurses at the hospital (research site).
- Registered nurses at the hospital who voluntarily participated in the study.
- Registered nurses who provided direct nursing care to patients; and
- Registered nurses who have worked for more than six months at the hospital (research site).

#### 4.5.3.2 Exclusion Criteria:

Exclusion criteria are defined as features of the potential study participants who meet the inclusion criteria but present with additional characteristics that could interfere with the study's success or increase their risk for an unfavourable outcome (Hulley et al., 2022: 18). Accordingly, the eligibility criteria for inclusion in the study are the following:

- Registered nurses who were unwilling to participate in the study.

- Registered nurses who have worked at the hospital for less than six months (research site); and
- Any registered nurses who were not giving direct nursing care to patients.

## 4.6 DATA COLLECTION

Data collecting is the methodically conducted process of gathering data that is pertinent to resolving an identified aspect of either the research problem or its attendant research questions (Polit & Beck, 2021:4). In this study, data was collected by means of both the in-depth interviews with 10 registered nurses and three focus group discussions with a total of 21 registered nurses (i.e., 7 (seven) registered nurses per group).

It is worth noting that the data collection process only commenced after authorisation/ approval or permission to do so had been granted by the Ethics Committee (Higher Degrees Committee) of the College of Human Science at UNISA (see Annexure A). Equally important, the researcher requested permission from the management of the hospital in Ijebu Ode, Ogun State, Nigeria (see Annexure B and Annexure C).

### 4.6.1 Semi-structured In-depth Interviews

Generally, the interview is defined as a powerful method for acquiring rich data about people's perspectives, attitudes, and the meanings that guide their lives and behaviour (Gray, 2018: 382). An in-depth interview is a qualitative research tool that entails intensive individual conversations or dialogue between the researcher as interviewer and a limited number of participants (interviewees) who were purposively chosen according to the researcher's predetermined selection criteria (Scotland, 2018: 5). Semi-structured interviews were used to get more opinions and understanding from individual participants. The researcher proposed utilising the same participants in focus groups and in-depth interviews. The semi-structured in-depth interview was conducted first, with the assistance of an interview guide. An interview is defined as a verbal dialogue in which one person, the interviewer, attempts to gather and comprehend information from another person (the interviewee) (Gray, 2018: 382).

The in-depth interviews were conducted in a conference room at the selected hospital that lasted approximately one hour. The in-depth interviews were conducted when the participants were off duty, and the language of the in-depth interview was English. In consonance with the interpretivist paradigm, the participants' perspectives or

viewpoints, perceptions and knowledge (opinions and insights) are crucial insofar as nurses' participation in healthcare research is concerned (Boyce & Neale, 2018: 5).

An interview guide (see Annexure H2) was produced ahead of time to keep the interview under control (Boyce & Neale, 2018: 5). The researcher utilised an audio recorder to guarantee that no information provided by the participant was omitted. An informed consent form was issued for each interviewee to sign before the interview started (see Annexure D). Before signing the permission form, the researcher explained everything to the interviewees in the person's official language. This signifies that the interviews were conducted in the interviewee's official language, English. Interviews are the primary data source in research involving single or numerous cases (Yin 2018: 4). As a result, interviews are helpful when attempting to gather detailed information and discerning individual viewpoints from group-held beliefs.

In this regard, in-depth interviews provided the researcher with a better understanding of the community's aims and challenges and identify gaps for timely remedial action and interventions. An interview guide was created to help with the data collection process in an organised and constructive manner (Silverman, 2019:5). In addition to the interviews, the researcher employed qualitative observation during each interview and recorded proceedings such as the participants' engagement, remarks, and non-verbal communication in her notebook throughout the interviews (Creswell, 2018: 191).

The depth interview remains important in qualitative research because it allows researchers to document multiple perspectives on reality and obtain 'thick descriptions' (Silverman, 2019:15). A depth interview is essentially a conversation between two people that can take place face-to-face, online, or over the phone. Focus groups are the best way for consumers to exchange ideas and discuss disagreements. The purpose of focus groups is to collect data through interactive and directed discussions led by a researcher. It is a type of qualitative research that consists of a group conversation in which prompts are given to elicit sharing data about their perceptions, opinions, beliefs, and attitudes. The goal of a focus group interview is to collect high-quality data in a social setting (Creswell, 2018: 49).

### 4.6.2 Focus Group Discussions

Focus group discussions or conversations are carefully designed discussions that use group dynamics to provide rich information cost-effectively (Kelly & Cordeiro, 2020: 4). Furthermore, focus group discussions help gather information on topics and issues where group dynamics positively impact the conversations (Davies & Hughes, 2018: 5). According to Yin (2018: 5), the researcher should act as a moderator without dominating the discourse. This would provide insight into the participants' experiences, beliefs, and points of view. There were 3 (three) focus group discussion, with seven nurses in each session to enable conducive and productive interaction within those groups concerning nurses' ideas and attitudes in relation to their participation in healthcare research, with specific reference to HIV and AIDS transmission in Nigeria (Brink et al., 2018:3).

In individual and focus group discussions, appropriate Covid-19 risk-adjusted compliance was observed as directed in the UNISA ethics regulations (UNISA, 2020a: 5; UNISA, 2020b: 4). Furthermore, due regard was given to the critical ethical consideration of obtaining the informed consent of the participants. This entailed a full disclosure of the study, including an explanation of the purpose of the research and how the findings would be utilised and the requirement for voluntary participation and safeguarding of the participants' confidentiality and privacy (Davies & Hughes, 2018: 5). Most importantly, the individual in-depth interviews and focus group discussions were audio-recorded with participants' consent to ensure that their pre-analysis (raw or original) statements were obtained and secured in their uncontaminated form.

Figure 4.3 below demonstrates the seating arrangements of the seven participants in the three focus group discussions.

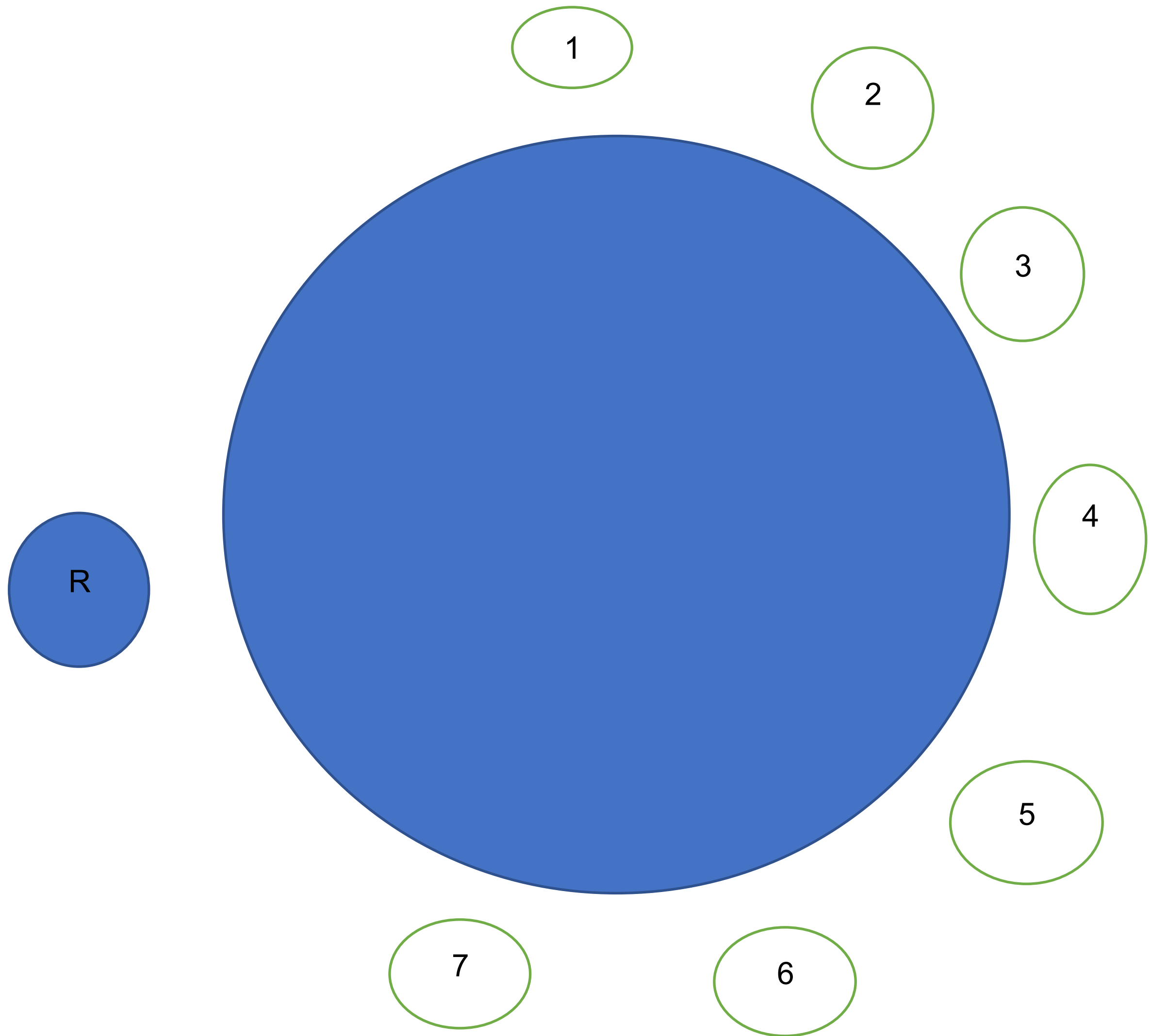



**Figure 4.3: Seating arrangement during focus group discussions**

In the seating arrangement depicted in Figure 3 above, the letter "R" represents the researcher, and numbers 1-7 represent the participants in each of the focus group discussions/ conversations.

### 4.7 DATA ANALYSIS

Data analysis relates to the systematic organisation and categorisation of collected data in order to establish meanings from which the findings could be developed (Taylor & Bogdan, 2018: 56). This dynamic process employs intuitive and inductive ways in order to obtain a more in-depth grasp of what has been studied and constantly enhance interpretations (Creswell, 2018: 67). Hatch (2022: 148) defines qualitative analysis as "the act of organising and probing data for researchers to recognise patterns, find themes, establish correlations, build explanations, offer interpretations, issue criticisms, or construct ideas." Synthesis, assessment, interpretation, categorising, hypothesising, comparing, and pattern identification are all critical data analysis tasks (Hatch, 2022: 148).

#### 4.7.1 Thematic Data Analysis

Smith and Firth (2019: 18) make reference to three types of qualitative data analysis methods, namely: sociolinguistic analysis methods, which include discourse and conversation analysis to investigate language use and meaning; grounded theory methods, which focus on developing the approach; and content and thematic analysis methods, which describe and interpret participants' views. In this investigation, content and thematic analysis was applied in order to identify the categories, linkages, and assumptions that shape respondents' perceptions of the world and the issue (Holloway & Galvin, 2020: 282; McCracken, 2018: 67). The data analysis used in this research was intuitive and inductive, which facilitated the finding of themes, ideas, and propositions (Braun & Clarke, 2017: 24; Creswell, 2018: 34). According to Stake (2018:67), data analysis starts as part of the case study research approach.

An inductive approach was used in the study, where the themes enclosed in the entire data set were identified and analysed without a hypothesis. In this proposed research study, the information derived from both the individual in-depth interviews and focus group discussions were transcribed and organised into themes for presentation using the modified six phases of data analysis as outlined by Braun and Clarke (2017, as cited in Allen & Laurie, 2016: 5) as follows:

- Phase 1: The researcher acquainted himself with the data by transcribing the audiotape information read and re-reading the data collected.
- Phase 2: The researcher generated initial codes.
- Phase 3: The researcher searched for common themes.
- Phase 4: The researcher reviewed the identified themes.
- Phase 5: The researcher defined and named the themes; and
- Phase 6: The researcher then produced the final research report.

Thematic analysis was applied throughout the interviewing, transcription, and data review processes. This process also allows for classifying and categorising data into themes (Alhojailan, 2022: 30). Thematic analysis is a typical qualitative research approach that provides a more thorough knowledge of any problem (Marks & Yardley, 2018: 12). It facilitates the analysis of interviews, group discussions, papers, and so forth (Fereday & Muir-Cochrane, 2018: 67). It requires digging through data to find reoccurring problems (Creswell, 2018: 44). A theme denotes some degree of structured response or meaning within the data collection and captures an essential component of the data about the research issue (Braun & Clarke, 2017: 4). According to Namey et al (2018: 138), the thematic analysis goes beyond counting actual words or phrases to discover and explain implicit and explicit concepts. Codes representing concepts or themes are then added to or connected to raw data as summary identifiers for further analysis, such as comparing the relative frequencies of themes or subjects within a data collection, searching for code co-occurrence, or visually exhibiting code associations (Stake, 2018: 45).

Thematic analysis is divided into six phases, according to Braun and Clarke (2017: 6). The first step was to get acquainted with the data acquired, which included transcribing, reviewing, re-reading, and noting early thoughts. Phase two involves methodically developing initial codes from intriguing data coding characteristics over the entire data collection, acquiring information relevant to each code (Braun & Clarke, 2017: 6). The third step consists in looking for topics. This entails categorising codes into prospective themes and accumulating all relevant data for each potential topic. The fourth step was assessing themes to verify they were connected to the extracts, concepts, and total data set or developing a thematic' map' of the study. The fifth stage consisted of defining and identifying the topics (Namey et al., 2018: 138). This involves continual study to fine-tune the details of each topic and the overall storey told by the analysis and develop precise definitions and titles for each theme. The report was created at the last step, picking colourful and appealing extracts.

Participants' interpretations are essential in qualitative analysis because they provide the most relevant explanations for their behaviours, activities, perceptions, and ideas (Creswell, 2018: 45). Thematic analysis is a simple technique for participant analysis that enables people to find themes connected to the data. In this work, data collection and analysis were carried out as complementary activities that were carried out simultaneously (Alase,2017). Each analytical transcript identified areas lacking information, leading to a more in-depth inquiry in the following interviews.

Before data analysis, all audiotaped interviews were transcribed verbatim and coded. Braun and Clarke's (2017:7) theme analysis stages aided the researcher in understanding the data, particularly how to continue reading/re-reading the transcript and memoing. The complete comprehension provided a feeling of data trustworthiness and reflected on the overall meaning of the database and the identification of data trends (Creswell, 2018: 45). Furthermore, several text portions were underlined in the margins with remarks and appealing ideas. Finally, the researcher classified the transcribed interviews in the left margin, while comments regarding the content were written in the right margin.

The complete individual transcripts were coded line by line (Williamson, Given & Scifleet, 2018: 34). After coding three transcriptions, a code table was generated, and the transcript and code tables were given to the supervisor to be coded (Alase, 2017). The findings were compared, and new codes were added to the list as they appeared. Furthermore, data relevant to each code was compiled. The next stage was to search for themes by categorising codes into prospective topics and gathering all data related to each potential subject (Alhojailan, 2022: 78; Burnard, 2021: 56). The next step was to organise the themes and codes to correspond to the core notion. Finally, each of the themes was determined, and the last stage of analysis concentrated on depicting the storey of each case using quotations that provided the participants with a voice (Guba & Lincoln, 2020: 45).

It is evident that the thematic data analysis process was characterised by initially listening to the audio recordings and followed by a protracted transcription process in conjunction with the observation and field notes taken during data collection. In this regard, data analysis was undertaken with the generation of themes in specific segments (Silverman, 2019: 143). Such a process was in conformity with Braun and Clarke’s (2017) six steps, and alco converged the main themes from the in-depth interviews with those of the focus group discussions. The final stage involved the

preparation of the preliminary research report for corroboration by the participants themselves (Holloway & Galvin, 2020: 282; Silverman, 2019: 143).

## 4.8 MEASURES TO ENSURE TRUSTWORTHINESS

The notion of trustworthiness entails the extent to which the research process and its ultimate findings are believable on account of their display of scientific rigour and integrity and generation of trust and confidence among the research community and the general reading public (Holloway & Galvin, 2020: 303; Streubert & Carpenter, 2017: 8). It is worth noting that the criterion attendant to rigour varies across studies and researchers, and could be theoretical, methodological, and philosophical basis (Emden & Sandelowski, 2019: 6; Fossey, Harvey, McDermott & Davidson, 2019: 6). It is on the basis of trustworthiness and scientific integrity that a qualitative study and its results could be competently judged as having undergone credible quality assurance scrutiny by peers in the same research field (Vogt et al. 2018: 55).

In that regard, the measures of ensuring trustworthiness relate to the criteria or standard according to which the scientific rigour and integrity of the study was achieved in order to establish actuality, applicability, consistency, and impartiality (Bartex & Jack, 2018: 9; Creswell, 2018: 42). Accordingly, Lincoln and Guba (2020: 56) firmly allude that reputable trustworthiness measures or criteria are established in the context of the credibility, confirmability, transferability, and dependability standards; all of which are explained in detail below.

### 4.8.1 Credibility

Credibility refers to the trust in the integrity of the data, its interpretations and eventual findings (Patton 2019:243). Qualitative researchers are data collectors, and their research skills and expertise influence the trustworthiness of the study results (Patton 2019:243). The researcher’s supervisor’s significant knowledge in this regard assisted in the establishment of the research’s legitimacy. The assurance of the research’s credibility maintained that the respondent’s point of view and the researcher’s interpretation of the respondents’ contributions are consistent (Schwandt 2021:67).

Credibility is built when research results and interpretations are accepted by study participants (Creswell, 2018: 44). The study results and interpretations become trustworthy to participants when credibility is proven (Creswell, 2018: 44). As a result, the researcher established credibility by investigating a method to increase credibility

through prolonged engagement; the researcher also allowed sufficient time in data collection activities to understand nurses' participation in HIV transmission research development in Nigeria. (Holloway and Galvin 2020: 303).

The reliability of the study's conclusions is supported by the openness of the description of the research procedure. Firstly, the researcher established credibility by questioning the individuals' pain management techniques (Holloway & Galvin, 2020: 303). Secondly, the researcher avoided displaying his views while collecting data. Thirdly, the researcher tried to prevent surprise or displeasure at the participants' statements during the focus group interviews. Fourthly, explaining personal attitudes informs researchers of possible choices made during data collection and analysis (Streubert & Carpenter, 2018: 20). Finally, the researcher added a conference call with three participants to legitimise the results.

Furthermore, the researcher addressed the participants' suggestions with his supervisor before including these in the discussion chapter, including consequences and recommendations. According to Lincoln and Guba (2020: 78), this is a reliable way to judge the reliability of research results. Furthermore, this research established trustworthiness by engaging in the field for an extended period and keeping a reflective diary of the procedures. Moreover, I lived and worked in the research environment in Nigeria and spent some time throughout the data collecting period knowing the daily routines of registered nurses. Finally, as noted in the study design description above, the study permitted participants in focus groups to verify the research results. A consistent qualitative research assessment technique is adopted (Creswell, 2018: 8).

### 4.8.2 Confirmability

Confirmability is an illustration of the extent to which the data and interpretations of the results are not a fabrication, but authentically represent the participants' views as the original source the data (Tobin & Begley, 2021: 12). Confirmability also necessitates constant documenting of factual and subjective data gathered from informants. To guarantee the validity of the study's results, the researcher permitted informants to discuss their experiences, opinions, and values freely. Furthermore, the researcher used direct input from focus group talks to confirm the integrity of the analysed data. Finally, throughout the data processing procedure, field notes were employed. The degree to which the facts and interpretations are founded on activities rather than the researcher's thoughts or ideas is referred to as confirmability (Holloway & Galvin, 2020: 303). For example, the researcher verified that the findings reflected

the pain management strategies disclosed by the participants throughout data collection. Furthermore, the focus group interview notes were examined to confirm that the data accurately reflected the participants' perspectives (Holloway & Galvin, 2020: 306).

Holloway and Galvin (2020: 303) urge that the data, conclusions, interpretations, and recommendations should be evaluated for internal coherence to ensure the data supports the final output. To guarantee confirmability in this study, the researcher ensured that the findings reflected the nurses' perceptions and reactions to their engagement in HIV and AIDS transmission research-creation in Nigeria. To improve the confirmability of the study findings, the researcher employed audit trails, member verification, and bracketing. In addition, notes from the focus group interview were examined, and voice recordings were listened to ensure that the data accurately reflected the participants' perspectives. The researchers also sought participants' confirmation that the interpretations accurately reflected their attitudes, beliefs, and reactions.

**4.8.3 Transferability**

Transferability refers to the potential for the research results to be applied to a new group of participants or setting with the same problem as the original research context or naturalistic environment (Streubert-Speziale, 2017: 78). In that regard, the natural generalisations are conclusions acquired via personal engagement in life's concerns, or through experiences ingrained in the readers' experience, whether explicitly stated or not (Stake, 2018:87). According to Guba and Lincoln (2020:34), it is not the researcher's responsibility to develop a transferability index, but to offer a database that enables future applicants to judge transferability.

In this study, the researcher provided thorough descriptions of the research environment and what he heard and saw concerning pain treatment procedures while collecting data from the participants' viewpoints. The researcher aimed to improve the probability of transferability in this research by utilising appropriate sample strategies that comprised an equal number of male and female registered nurses. A good description of research participants helps readers see themselves as participants in the study and evaluate if they can apply to another environment (Tobin & Begley, 2021: 12). The availability of appropriate information on each research procedure, the characteristics of study participants, and precise explanations of research analyses

and conclusions have an impact on how findings from this study are presented and could be transferable to other settings.

#### 4.8.4 Dependability

Dependability is defined as the consistency of the findings, often shown by their replication irrespective of external conditions or circumstances (Krefting, 2019: 65). To establish dependability, the researcher posed similar questions in different ways, which allowed the researcher to analyse the consistency of participants' replies (Creswell, 2018 :42). After the interview, the researcher consulted the original interview transcripts and carefully studied each one. The researcher recorded the research approach employed to increase the study's dependability. The researcher supplied raw data, transcript reports with coded data, and interpretations to the study supervisor, who audited the results to corroborate the findings. All raw data and transcript reports were kept in a secure location.

Auditing or generating an audit trail ensures dependability (Schwandt, 2021: 22). Creating an audit trail requires presenting data analysis details and actions that lead to the findings. For example, researchers confirm that the logical research process and good documentation follow (Schwandt, 2021: 22). This technique provides a recorded trail of events that others may examine to scrutinise the researcher's data documentation, methodology, conclusions, and results (Tobin & Begley, 2021: 12). According to Krefting (2019: 65), the dependability of the findings could be improved with the involvement of multiple researchers for independent coding of data sets and then draw joint conclusions and comparing results through a consensus concerning the emerging codes and associated categories (Krefting, 2019: 18). To account for the research process, field notes and a self-critical analysis were employed in this study.

### 4.9 ETHICAL CONSIDERATION

Ethics is a means of ensuring that researchers conduct themselves professionally by upholding and defending the human rights, dignity and integrity of those they have invited to participate in their research (Davies & Hughes, 2018: 10). Human rights include the right to self-determination (autonomy and informed consent), privacy, anonymity, and secrecy (confidentiality), as well as the right to justice and protection from harm (Grove et al., 2019: 100). The ethical issue is to defend the human rights of the participants who participate in the research. Human rights include the right to self-determination, privacy, anonymity, and secrecy, as well as the right to justice and

protection from harm (Grove, Gray, & Burns, 2019: 100). The scope and purpose of the research and the procedures to be followed are described to participants. The said agreement must be acquired before the commencement of the interview, and participants were informed that they might opt out of the research at any moment. Participants were permitted to ask clarifying questions and affirm their participation in writing.

The University of South Africa Health Sciences Research Ethics Committee granted ethical permission (see Annexure A), as did the Ogun State Hospital Board in Ijebu Ode, the local research site (see Annexures B and C). The data collection procedure did not commence until the above-cited approvals were granted. The following international bioethics standards were followed: seeking informed consent, ensuring anonymity, not using subjects of extreme vulnerability, calculating the cost-benefit ratio, respecting subjects, assuring participants that they have the right to withdraw from a study, preserving project material, and disclosing any study risk (WHO, 2011:5).

Professional contact with participants ensured participant respect (Fontana & Frey, 2018: 8). After obtaining the information, each participant was asked to grant informed permission before the interview started. They were promised that their participation in the research would be entirely voluntary and that they may withdraw at any moment. Participants also agreed to be audiotaped during the interview. However, they were warned that they had the right to decline to answer any questions and switch off the tape recorder at any moment. To preserve the confidentiality of the research data, interview transcripts and demographic data were kept in a separate secured cabinet. Computer files that have been password-protected include interview transcripts and other study-related information. The audio files will be permanently deleted after five years, ensuring that the data on the hard disc is no longer recoverable. Computer files will be removed entirely from the system.

### 4.9.1 Internal University Reviews: Permission

This researcher received approval to perform the study from the appropriate hospital authorities (Annexure G). Permission was obtained by the designated hospital's Director of Medical (Annexure G). The researcher also gained ethical permission from the University of South Africa's (UNISA) College of Human Sciences Research Ethics Review Committee to perform the study (Annexure I). The researcher first obtained formal approval and permission to commence the study from Graduate Research

Ethics Committee (GREC) (Grove et al., 2019: 100). Thereafter, the researcher formally sought formal authorisation from the hospital authorities in Nigeria for the researcher's sampling and inclusion of the registered nurses (their employees) as participants in the in-depth interviews and focus group discussions.

### 4.9.2 Informed Consent

Following the granting of permission by the GREC at UNISA, the researcher then wrote formal letters of request to the hospital authorities (in Nigeria) and separately attached a participant information sheet and informed consent form. Perennial to the latter two attachments was information about the scope and purpose of the research; the procedures to be followed by participants (Punch, 2018: 10). The participants were also notified of their right to privacy and confidentiality with full disclosure and withdrawal from the study at any time if they felt the researcher violated their rights. In addition, they were notified that their input in the study was not provided for external publication by others without their written permission (Punch, 2018: 11). Informed consent is a freely provided agreement between the researcher and the participants to engage in the study. It is a strategy to ensure that participants know the study's objectives and dangers. To get permission, participants must be informed about their rights, the study's aims, the procedures to be employed, and any dangers, and advantages to participants (Slam, 2018: 2).

Before signing permission to participate in the research, for example, the nurses were provided information about the study’s goal, protocols, and estimated participation period. Furthermore, participants were told they were not required to participate in this research; they may withdraw at any moment and decline to answer any questions that they thought invaded their privacy, or they might conceal information without being penalised (Annexure B).

### 4.9.3 Justice

Justice was maintained by ensuring that the study participants were treated fairly and equally, irrespective of their professional, cultural or socioeconomic status (Richard et al., 2018:5). Justice shall be upheld by ensuring that research participants are treated fairly and that their human rights are always respected.

### 4.9.4 Self-determination

The rights of participants to self-determination and autonomy are based on the principle of respect for persons to freely and independently decide whether or not to take part in a study without fear of punishment, recrimination or discrimination (Yin, 2018: 6). The researcher ascertained that each participant decided to join in the study without any influence from others and that they were not threatened or intimidated for refusing to participate in this study. The right to self-determination of participants is based on respect for individuals, which asserts that a person has the freedom to choose whether to engage in research without fear of punishment or discrimination. The capacity to select and have those decisions be the goals of one's conduct is characterised as self-determination (Hui & Tsang, 2018: 2). Participants' right to self-determination is founded on the concept of respect for individuals, which means that an individual has the freedom to participate or not engage in research without fear of penalties or adverse treatment. Therefore, the researcher ensured that all participants could freely choose to participate in the study.

### 4.9.5 Autonomy

Autonomy relates to an individual's right to decide on the activities in which they engage (Thanh & Thanh 2020:5). The researcher ensured that each participant exercised their discretion independently without any inducement or coercion.

### 4.9.6 Beneficence

Refers to the researcher's commitment to maximising benefits for individual participants while reducing the danger of damage or risk to participants (Thanh & Thanh, 2020: 5). The researcher made sure that the participants were not exposed to the risk of physical, emotional or psychological harm for the entire duration of the study. The researcher needed to be sensitive and avoided asking questions that would reveal every person of the participants. The researcher also highlighted the benefit of exposure to research, a critical aspect of this study. Should the interviews trigger physical, emotional or psychological harm, the researcher would have informed the participants that if they choose to participate now, they could skip questions or stop the interviewing.

The researcher's dedication to maximising benefits for individual participants while minimising the risk of harm to others. Beneficence is a means of benefiting others.

Beneficial activities may assist others in avoiding or eliminating damage or improving their position (Walby & Luscombe, 2018: 22). It refers to the researcher's obligation to maximise the benefits to each participant while minimising the risk of damage to all participants. For example, the researcher verified that any information supplied by participants was secured and not exploited against them.

#### 4.9.7 Privacy, Confidentiality and Privacy

The personal particulars, identifiers and involvement of the participants would not be divulged to outsiders. The participants would not be asked to disclose their names, which were replaced with pseudonyms to protect their identity (Brink et al., 2018: 7). In addition, all hard copies and electronically generated data were to be destroyed after five years of the study's approval to ensure that no evidence of the participants' involvement could be linked or traced back to them. The information obtained was kept anonymous, and no data was connected to research participants. Participants in the focus group interviews were not permitted to share any material gained outside the interview session (Dwork, 2018: 1).

#### 4.9.8 Risk

According to the researcher, protection from discomfort and harm: No known risks are associated with this study. However, by halting the conversation and letting the participants select whether or not to continue, the researcher ensured that participants were at peace and that any signals of concern were effectively handled. In addition, during all focus groups, the researcher provided a quiet room and a setting devoid of distractions.

#### 4.9.9 Fair Selection and Treatment

The right of participants to fair selection and treatment is anchored in the ethical concept of justice, which argues that the researcher must choose the study population fairly. The participants must be selected following an idea directly relevant to the study topic (Brink et al., 2018: 36). Participants were treated decently, and appointments for data collection were kept on the stated days and times.

## 4.10 SUMMARY

This chapter discussed the research strategies and methodology used in the study, including the setting, population, sampling and data collecting. The chapter also highlighted the steps to secure the study's credibility and ethical issues. Finally, in Chapter 5, the study results are presented and described.

# CHAPTER 5
# FINDINGS AND INTERPRETATIONS

## 5.1 INTRODUCTION

The preceding chapter provided details concerning the pre-data collection processes, approaches and arrangements pertaining to this study (Babbie & Mouton, 2020: 166). The current chapter on the other hand, presents the actual results accruing from the analysed data (statements or responses of total participants of 31 nurses) from both the 21 focus group participants (registered nurses) and the other 10 registered nurses who participated in the in-depth semi-structured interviews; all of whom worked at the chosen hospital in Ogun State, Nigeria. It is also worth noting that these findings are also presented and discussed in the context of the literature consulted or reviewed in this study. The latter orientation or approach is indispensable, especially that it facilitated a process in terms of which the registered nurses' opinions, perceptions, and knowledge on the investigated phenomenon or research topic could either be corroborated or disproved (Anderson & Poole, 2014: 11; Clark, Foster & Bryman, 2018: 28).

The chapter is structured such that it captures and briefly explains the bibliographic profiles or characteristics of all the 31 sampled participants whose oral or verbal responses made a valuable contribution to the study's findings. The bibliographic details are then followed by a detailed discussion of the findings themselves under four pertinent themes, sub-themes, and categories, along with verbatim participant statements (Clark et al., 2018: 28; Kemmis & McTaggar, 2020: 6).

## 5.2 DEMOGRAPHIC PROFILE/ CHARACTERISTICS OF THE PARTICIPANTS

Table 5.1 overleaf, depicts the participants' biographical data or profile in respect of their gender, age, nursing qualifications, years of experience, years at the hospital and employment status. Extrapolated from Table 5.1 is that from the total registered nurse participants (n=31, 100%), the majority (n=18, 58.1%) were female, while the rest/ minority (n=13, 41.9%) were male. Such a situation confirms (rightfully or not) that in many parts of the world, nursing is still construed as a female dominated profession. Furthermore, the age distribution of the participants reflects that the majority (n=17, 54.8%) were aged 40-49 years, while the minority (n=14, 45.2%) were aged 30-39 years. Such a state of affairs indicates that there were older registered nurses than their younger counterparts.

In terms of qualifications, the majority (n=17, 54.8%) were graduates who had a minimum of BScN degree, while the minority (n=14, 45.2%) only had a Diploma. This reflects that the 'lifeblood' of nursing is guaranteed or sustainably projected with more graduates in the professional ranks.

**Table 5.1: Demographic profiles/ characteristics of participants**

| VARIABLE/ ITEM | | NUMBER (N) |
|---|---|---|
| **Gender** | Males | 13 |
| | Females | 18 |
| **Age** | 30-39 years | 14 |
| | 40-49 years | 17 |
| **Nursing Qualification** | Diploma | 14 |
| | BScN | 17 |
| **Years of Experience** | 6-10 years | 3 |
| | 11-15 years | 14 |
| | 16-20 years | 14 |
| **Years Working at the Hospital** | 1-5 years | 14 |
| | 6-10 years | 17 |
| **Employment Status** | Full Time | 31 |

Furthermore, the majority of participants (n=14, 45.2%) had 16-20 years and 11-15 years of experience as registered nurses, while the minority (n=3, 9.6%) only had 6-10 years as professionally trained and registered nurses. On the other hand, the majority (n=17, 54.8%) nurses had 6-10 years of experience working at the same hospital where the study was undertaken. It should be noted that the years of working at this hospital does not necessarily imply the overall number of years as registered nurse professional because some may have worked elsewhere as well. Based on the information in Table 5.1 above, it is evident that all the registered nurse participants (n=31, 100%) also were employed full-time at the time of conducting the study.

Whereas Section 5.2 basically presented the bibliographic details of all 31 participants, the ensuing Section 5.3 presents and discusses the actual thematically constructed findings of the study in the context of the available literature consulted in this study. To that extent, Section 5.2 could be viewed as the convergence of both the secondary (literature-based) data and the primary data of the study, with the latter reflecting the empirical, non-theoretical/practical or evidence-based domain of the entire study (Clark et al., 2018: 36; Efron & Ravid, 2019; 36).

### 5.3 FINDINGS AND THEMATIC CATEGORISATION

The cumulative responses and statements of the participants generated findings from which 4 (four) prominent themes were generated in conjunction with their related categories and sub-categories. The researcher recognised the following four themes:

- Theme 1: Nurses' awareness of the availability of HIV and AIDS research.
- Theme 2: Participation of Nurses in Research Development.
- Theme 3: Attitude of Nurses in Research Development; and
- Theme 4: Measures to Improve Participation of Nurses in Research Development.

#### 5.3.1 Theme 1: Nurses' Awareness of the Availability of HIV and Aids Research

How nurses view healthcare research availability influences their behaviour in establishing HIV and AIDS healthcare research and policy in Nigeria (Swakhalen et all., 2017: 178). As a result, to accomplish successful healthcare research, nurses must have a favourable awareness of the availability of HIV and AIDS research. According to Chatchumni et al (2019: 28), nurses' interpretations of the necessity for healthcare research development influence their desire to participate in healthcare research development. As a result, the participants' HIV and AIDS plan implementation reports were condensed into a single sub-theme. This sub-theme was about having a profound grasp of healthcare. Table 5.1 below, depicts the sub-themes and categories of Theme 1.

**Table 5.1: Sub-themes and categories of theme 1**

| Theme 1 | Sub-themes | Categories |
|---|---|---|
| **Nurses' Awareness of the Availability of HIV and AIDS Research** | **Intimate understanding of healthcare research** | • Understanding of local research.<br>• Understanding of global research.<br>• Understanding the barriers to HIV and AIDS research implementation.<br>• Implementing local and global research.<br>• Essential of the nursing role. |

| | | • The essential role of collaboration with partners. |
|---|---|---|

#### 5.3.1.1 Sub-theme 1.1: Intimate Understanding of Healthcare Research

The participants' intimate awareness of healthcare research refers to their conceptualisation of the consequences of HIV and AIDS on the healthcare system. The sub-theme sheds light on the degree to which nurses are aware of the trends, impacts, ameliorative techniques and the accompanying impediments. Six areas arose in this sub-theme: pain recognition and interpretation and a regulatory framework for pain treatment. Each category is explored in detail in the following sections. According to Koopmans and Schiller (2022: 1), healthcare workers are crucial consumers of research findings in evidence-informed decision-making. Clinician scientists, particularly nurse researchers, play a critical role in providing research findings that may be used to guide and enhance healthcare practice, education, and policy. Health research is often carried out using one of three paradigms: quantitative, qualitative, or hybrid techniques. Each study strategy is founded on its own set of philosophical assumptions, methods, and rhetoric. Each paradigm's evidence is required to give healthcare decision-makers knowledge of the complex and inherently different human experiences of health and sickness (Koopmans & Schiller, 2022: 1). The contributions of all three focus groups are denoted in quotes as FG1, FG2, FG3, and FG4, with FG1 referring to focus group one, FG2 referring to focus group two, FG3 referring to focus group three, and FG4 referring to the three extra participants. Also, the contribution of selected participants for the in-depth interviews is denoted as II1 – II20. These categories are as follows:

##### *5.3.1.1.1 Category 1.1.1: Understanding of global research*

The focus group members discussed interpreting global HIV and AIDS research. In Nigeria, HIV and AIDS are regarded as major public health issues. For instance, one survey participant intimated that HIV and AIDS constituted a difficulty in the health system and the general population. This participant agrees, stating that the impact of HIV is most visible in society's most vulnerable people. Furthermore, HIV has become a perpetual and ingrained concern because we have included future generations. The following are actual quotes that back this up:

**FG1:** "*I know through research that HIV was once a worldwide concern, but it is now mostly a problem in our local government areas nationwide*". *(Participant 1, 45years, female).*

**FG2**: "*According to some global research or information available, we were able to know what the worldwide prevalence is. It was stated that around 35 million persons are infected globally. Still, more than 90% of those infected live in developing countries, with Sub-Saharan Africa accounting for two-thirds of the global prevalence. So, you can see that it is not a worldwide issue; it may be a global worry, but it is more of a developing-country problem or call it Africa's problem"*. *(Participant 3, 40years, female).*

**FG3:** "*We were able to know that HIV was first found in the state in 1987 via worldwide research, but it was difficult to convince many of the reality of such a disease, and the concept of mother-to-child HIV transmission remains a myth to many*". *(Participant 5, 42years, male).*

**FG2:** "*Global research stated that Nigeria provides 30% of the worldwide HIV load, and Ogun State was one of the 12+1 states that contribute roughly 70% of Nigeria's mother-to-child HIV transmission burden. In the most recent sentinel report, the country's HIV prevalence was 4.1%, while Ogun state prevalence was around 7.1% and ranked ninth in the world*". (*Participant 7, 36years, female).*

**FG1:** "*However, it wasn't until global recent sentinel report I came across that I realised the proportion of pregnant women who were afflicted, and you can picture the number of newborns who would be positive, and I also compared HIV prevalence in Ogun State to other states in Nigeria". (Participant 2, 48years, male).*

**FG3:** "*My interaction with the global research on an interpersonal level, I have experienced the impact of HIV and AIDS on intimate relationships, and on a professional level, I have witnessed the influence of HIV and AIDS in the healthcare system, community, and the country as a whole"*. *(Participant 10, 40years, female).*

MacLean (2021: 2) intimates that the supply and demand principles impact the worldwide research perspective. The capacity to deliver research results is a vital business for knowledge producers like universities and research institutions. Indeed, research results constitute a kind of assessment. Rapid advancements in information technology have expanded data availability to the point that practically everyone with a mouse and internet connection may function as a quasi-researcher (MacLean, 2021: 1). Recognising global HIV and AIDS trends is the first step in ensuring patients with HIV and AIDS are appropriately managed. It is challenging to examine and treat HIV and AIDS if they are not recognised (Rasmi, Awaje & Khraisat, 2017: 10). Lichtner et al. (2019: 427) comprehended overall patients' and pieced together a picture of an individual's infectious pattern.

*5.3.1.1.2 Category 1.1.2: Understanding of local research*

Participants displayed an awareness of the many strategies implemented by their organisation to tackle the threat of HIV and AIDS. Unfortunately, there is very little local research on HIV and AIDS transmission in Nigeria. The initial local strategy, for example, was to create an agency known as the National Agency for Control of AIDS (NACA), which will assist to coordinate HIV, followed by state and municipal government bodies. The following are actual quotes that back this up:

> **FG2:** "*I think this organisation (the State AIDS Control Agency) was the first local purposeful attempt since we continued trying different methods without coordination of actions*". *(Participant 6, 45years, female).*

> **FG3:** *"A method of integrating HIV and AIDS prevention into the healthcare system is to guarantee that local services are available for every pregnant woman, regardless of where the pregnant woman comes from, throughout the state"*. *(Participant 12, 45years, male).*

> **FG1:** "*I believe HIV and AIDS transmission is real and local people need to understand it". (Participant 14, 39years, female).*

> **II1:** *"HIV and AIDS transmission is becoming slower than it used to be"*. *(Participant 8, 38years, female).*

**II4:** "*Many people are more aware of it and trying to prevent it, but the belief of local people is still a problem*". *(Participant 9, 43years, female).*

**II7:** *"The transmission of HIV and AIDS is now more common in rural areas than urban because of self-awareness*". *(Participant 4, 45years, female).*

Another plan mentioned by participants was the state operational plan prepared by all stakeholders; the plan gives guidance on executing the four prongs and recognises the role and actions of various stakeholders. The state produced an integrated or harmonised work plan which will assist in coordinating operations with numerous partners who implement in the state; the plan identifies and monitors the actions of each implementing partner. Participants also stated that the state's successful technique includes integrating HIV and AIDS programmes into all places where health services are provided. HIV and AIDS services are available at all levels of healthcare in the state.

*5.3.1.1.3 Category 1.1.3: Understanding the barriers to HIV and AIDS research implementation*

This institution's participants also showed knowledge of HIV and AIDS research implementation difficulties. Participants discussed the obstacles to research implementation, such as cultural attitudes and a lack of human resources. For example, according to one participant, many individuals still choose traditional birth attendants for health treatment. These hurdles include a lack of service uptake, poor adherence to treatment, a lack of agreement from a spouse or family member to treatment, and HIV superstition. In addition, misconceptions about HIV persist in communities, with some pregnant women refusing treatment after testing positive. The following are actual quotes that back this up:

**FG2:** "One *major barrier to implementing HIV and AIDS research was because many nurses do not believe in the reality of HIV and AIDS as a sickness; others think witches cause it"*. *(Participant 2, 45years, male).*

**FG3:** "*Another difficulty was that they were positive after some women were contacted. They stopped attending the hospital and reverted to their churches or traditional birth attendants, making it impossible to track these females down*". *(Participant 11, 45years, female).*

**FG1:** *"Some customers conceal that they need to take antiretroviral medications because they are afraid their spouse will kick them out of the house". (Participant 31, 45years, female).*

**FG2:** *"The majority of expectant women register with us but give birth at home or with conventional delivery attendants; as a consequence, screening the infants is complicated". (Participant 21, 40years, male).*

Participants proposed numerous possible solutions to research implementation challenges. Participants describe how various offered ideas were implemented and achieved good outcomes. However, further healthcare research is required to identify potential solutions to challenges highlighted by this study, such as a lack of engagement in healthcare research and policymaking, a lack of cooperation among partners, and impediments to healthcare access. According to Laprise and Bolster-Foucault (2021: 1), efforts to improve access to HIV and AIDS research implementation should consider barriers and facilitators at the individual, healthcare provider, and policy levels, focusing on research services accessibility, inclusivity, convenience, and confidentiality. Furthermore, research services must be tailored to critical groups' specific demands and settings (Laprise & Bolster-Foucault, 2021: 1).

*5.3.1.1.4 Category 1.1.4: Implementing local and global research*

According to the participants, creative, community-driven solutions are vital to eliminating the HIV epidemic in Nigeria. According to them, Nigeria funded priority jurisdictions (state and local health departments) to develop innovative, locally tailored plans that lay the groundwork for scaling up the initiative's critical strategies in a way that addresses unique regional needs, reduces health disparities, and achieves health equity in each community. The following are actual quotes that back this up:

**FG3***: "Every nurse understands the importance of community nursing in eradicating HIV and AIDS in Nigeria but fails to implement local and global research when caring for HIV patients". (Participant 22, 45years, male).*

**FG2:** *"The key to HIV and AIDS local and global research implementation is to provide HIV and AIDS plans to the grassroots". (Participant 26, 45years, female).*

**FG1:** *"The government should establish additional local healthcare units in each local government to cope with implementing HIV and AIDS research"* *(Participant 27, 42years, female).*

Laprise and Bolster-Foucault (2021: 1) posit that integrating the local and global understanding of HIV and AIDS research is a gateway to HIV treatment and prevention. Therefore, it is a crucial pillar of local and worldwide efforts to lessen the health impact of HIV and AIDS. Furthermore, this understanding prevents the challenges and facilitators to HIV and AIDS research development, as well as some key aspects that may be harnessed to accelerate HIV and AIDS development (Laprise & Bolster-Foucault, 2021: 1). An efficient syndemic response necessitates programme integration to allow more flexibility in allotted resources, integrated policy and programme planning, development, delivery, and quick adaptation to new data or scientific discoveries. Community involvement is critical to the success of these strategies. It entails the ongoing participation of essential partners and broad-based communities in identifying methods to strengthen the coordination of HIV programmes within their jurisdiction to achieve the HIV and AIDS initiative (Laprise & Bolster-Foucault, 2021: 1).

*5.3.1.1.5 Category 1.1.5: Essence of the nursing role*

Several participants alluded that nurses have a unique role in Nigeria's HIV and AIDS response. Partners who implement argued that the state has no capacity of eradicating HIV and AIDS based on the number of medical physicians, hence they are more dependent on nurses' expertise since they are trained to deliver services that doctors would have supplied. In addition, participants reported that each active health institution must have at least one nurse knowledgeable about HIV and AIDS to organise operations and deliver standard HIV and AIDS services. The following are actual quotes that back this up:

**FG1:** "*Nurses are essential to the state's HIV and AIDS responses*". *(Participant 29, 45years, female).*

**FG2:** *"We have nurses in charge of some of these places"*. *(Participant 15, 45years, male).*

**FG3:** "*As long as there is a qualified nurse at the institution, we are certain that excellent care will be delivered, including antiretroviral antibiotic contro*l". *(Participant 18, 34years, female).*

Nurses have a unique role in assisting the Nigerian government in effectively implementing nationally approved HIV and AIDS programmes to eliminate HIV in the state. These positions offer technical support to increase health systems coordination via locally led solutions. Furthermore, they collaborate closely with nursing leaders to guarantee the activation of HIV sites and the long-term viability of the programmes. As a result, nurses' critical involvement in completing this purpose was widely recognised among participants. According to Koenig (2019: 1), rapid changes happening domestically and globally, including transformations in demography, languages, epidemiological patterns, and social systems, have direct consequences on patient treatment. These trends are expected to continue, and nurses must be prepared to care for a broader range of patient groups. The changing role of professional nurses is inextricably linked to technology. Although technology is essential in nursing, nurses still give the personal touch and remain at the forefront of patient care (Koenig, 2019: 1). They interact most with patients regardless of the type of healthcare setting in which they work. Nurses analyse and monitor patients and provide information to other healthcare professionals. Nurses are no longer limited to practising on physical premises, thanks to the advancement and diffusion of mobile technologies and telemedicine. They may help patients in their neighbourhoods and homes in person or via mobile technologies. Koenig (2019: 1).

*5.3.1.1.6 Category 1.1.6: The essential role of collaboration with partners*

Most participants agreed that cooperation with other healthcare partners is critical to eradicating HIV and AIDS in Nigeria. Participants stated that they work with physicians, counsellors, spiritual leaders, and psychologists to satisfy the health requirements of their HIV and AIDS patients. The participant claimed that eliminating HIV and AIDS in Nigeria would be difficult without the involvement of partners. The following are actual quotes that back this up:

**II1:** "*At the start of care, several partnerships meetings with physicians and patients to establish the kind of patient treatment always place". (Participant 13, 38years, male).*

**FG1:** *"Nurses usually suggest that all HIV and AIDS patients see a psychologist". (Participant 24, 36years, female).*

**FG2:** *"Nurses assist patients in receiving emotional therapy by talking with their pastors or other religious leaders of choice". (Participant 30, 35years, female).*

**FG1**: "*Because counselling is a crucial component of therapy for any HIV and AIDS patient, nurses usually recommend patients to visit a counsellor*". *(Participant 28, 41years, female).*

**FG3:** *"The federal government collaborates with each target jurisdiction to build local HIV prevention programmes*". *(Participant 23, 30years, female).*

Nursing's first concern is patient care. Nurses must communicate with relevant experts about their patient's treatment plans while also knowing the function of each allocated team member for patients to obtain the best healthcare possible. Nurses, in essence, act as a link between physicians, patients, and the institution. This job requires a lot of teamwork and coordination. Nurses engage with various healthcare providers inside and outside their team. Therefore, understanding positions within individual sections are vital for increasing cooperation. According to Monaco et al. (2021: 1), multistakeholder partnerships can promote swift HIV and AIDS prevention and patient care changes. Intra- and inter-communication between all stakeholders should be facilitated, involving all players in developing clinical guidelines and digital health tools, health and social care restructuring, and patient support in the short, medium and long-term. In addition, a comprehensive response to HIV and AIDS prevention should improve patient outcomes by providing strategic, scientific, and economic support (Monaco, 2021: 1).

### 5.3.2 Theme 2: Participation of Nurses in Research Development

According to most participants, nursing research significantly impacts the present and future professional nursing practice, making it a vital component of the training process. Nursing research, according to participants, is essential to the nursing profession and is required for ongoing improvements that support effective nursing care. However, all participants agreed on the low number of nurses engaging in healthcare research development in Nigeria, particularly HIV and AIDS research. Participants intimated that nurses do not consider healthcare research and policy

formulation a nursing duty; instead, they believe that nurses exclusively care for their patients and that everything beyond the bedside is not their responsibility. Although participants agreed that each nursing function had various duties, the fundamental objective of a professional nurse remains the same: to be the client's champion and deliver the best care based on scientific data.

**Table 5.2: Sub-themes and categories of theme 2**

| Theme 2 | Sub-themes | Categories |
|---|---|---|
| **Participation of nurses in research development** | **Participation in research-creation is limited** | • Few nurses are involved in research development.<br>• Challenges of research development.<br>• Propose solutions to research-creation. |

### 5.3.2.1 Sub-theme 2.1: Participation in research-creation is limited

This sub-theme relates to a participant's level of involvement in knowledge generation. The sub-theme is divided into three categories: Few nurses are engaged in research development, the obstacles to healthcare research development, and the invention of research solutions. The sub-theme illustrated the degree to which nurses contribute to knowledge development, the accompanying problems, and the proposed solutions to actively involve nurses in knowledge creation. There were parallels and contrasts in participants' impressions of each other, examined more below. Mundy and Pow (2021: 1) intimated that there is a need for strong leadership, an organisational and supporting infrastructure, and research competence development among nurses to assist early career researchers. Research techniques, programmes, and cooperation between academic and clinical leaders in this environment seem critical (Mundy & Pow, 2021: 1).

*5.3.2.1.1 Category 2.1.1: Few nurses are involved in research development*

Participants primarily understood the advantages of knowledge generation via healthcare research. Nurses mainly gather and supervise data acquired in their numerous research initiatives. Most of the nurses in this study admitted to having no meaningful involvement in HIV and AIDS research forums. According to participants, nurses use research; we do not create research. However, participants alluded that a few unit nurse leaders were involved in some healthcare research and management meetings at the establishment. Despite this, none of these nurses was active in HIV

and AIDS research. The participants agreed that healthcare research is essential for the profession's advancement and that meaningful healthcare research participation is vital, alone and in partnership with others. The following are actual quotes that back this up:

**FG3:** *"I am not one of those who organise these studies; they write the proposals and give them to us at the state, and we assist in monitoring the data acquired." As a result, other than anything related to my professional role, I am not participating in any independent or private research". (Participant 16, 40years, female).*

**FG2:** *"We can't develop our profession without research, yet I'm not participating in any HIV research". (Participant 17, 42years, male).*

**FG1:** *"Aside from my knowledge production, I am not participating in research, and it is not concerning HIV". (Participant 25, 34years, female).*

**FG3:** *I understand the importance of locally created evidence. But unfortunately, we are relying on study data established elsewhere today in practice. We don't even consider whether the evidence may be applied to our situation most of the time. We would not have such a high illness burden if we could develop our proof by our environment and culture". (Participant 19, 49years, female).*

**FG1:** *"I am not one of those who organise these studies; they draught the proposal and submit it to us at the state, and we help monitor the data collected." As a consequence, apart from my work responsibilities, I am not involved in any independent or private research". (Participant 1, 45years, female).*

**II2:** *"Research was not part of our training programme while I was there". (Participant 10, 40years, female).*

**FG3:** *"You know, Mr.; I've worked with nurses for a long time. But, apart from school projects like yours, I've never seen a nurse; I mean, any nurse in any healthcare setting can initiate a research study that would pique the authority's*

*attention and prompt them to declare, "This study is worth sponsoring". (Participant 9, 43years, female).*

**FG2:** *"Can you conceive a healthcare strategy that does not include a medical doctor?" I mean the whole committee if there is one [inquire about it]. On the other hand, nurses may be absent without raising an eyebrow". (Participant 7, 36years, female).*

**FG3:** *"I wouldn't say I'm actively engaged in healthcare research formation, but as a leader, I'm not involved at a high level." However, I am involved in creating minor research that governs the day-to-day operations of this institution. So, an approach that impacts the job itself is referred to as a lower-level policy". (Participant 3, 40years, female).*

**FG1:** *"After 25 years of service, I was not surprised to be called to a group that would want to adopt the national healthcare research policy in Ogun State, since, for the first time, this committee is chaired by a nurse leader". (Participant 14, 39years, female).*

**FG1:** *"I am not engaged in research formulation." Since these rules are usually created directly from the highest levels of the Federal Ministry's national headquarters, I can't claim nurses are. They are likely to be put in place at the state level. So, individuals engaged in HIV programme implementation tell us, "We have this national policy on this or that, organise a workshop, bring in a non-governmental organisation, and all that." However, stakeholders' perspectives active in practice or the leadership of professional organisations are not solicited". (Participant 21, 40years, male).*

**FG3:** *"All stakeholders are required for healthcare research implementation, yet not all are engaged in policy creation". (Participant 18, 34years, female).*

The above statements by the participants suggest that they were generally cognisant of the relevance of healthcare research in addressing both population and healthcare system concerns; however, they were not directly engaged in healthcare research investigations. Furthermore, most individuals indicated that their healthcare research involvement ended their school assignments. Nevertheless, the participants revealed that healthcare research played an essential role in the nursing associations' aims and

objectives, which required the members' participation in healthcare research with nurses and other health team members, disseminate specialised knowledge nationally and internationally through healthcare research reports and publications, and use healthcare findings of the research for evidence-based practice and education. On the other hand, participants believed that nurses had a limited role in knowledge development. Although nurses have grown more aware, talented, and well-educated in recent decades, they have had little engagement in legislative processes and political choices impacting healthcare delivery. Being the bulk of the healthcare staff, nurses contribute to the health system's strengthening (Hajizadeh et al., 2021: 6). Although nurses' involvement in health policymaking is evident, few are participating in healthcare research processes, especially in the clinical environment. Nurses may use this discovery to create empowering initiatives that will allow them to play more effective roles and improve their engagement in healthcare research development. Furthermore, the retrieved elements in this study may situate nurses in a favourable position and make them potential agents in altering policymaking methods (Hajizadeh et al., 2021:7).

*5.3.2.1.2 Category 2.1.2: Challenges of research development*

All contestants related poignantly to this category. All identified impediments may be divided into two categories: individual and systemic. The term "unique hurdles" refers to certain personal qualities that restrict a nurse's capacity to participate in policy creation, such as a lack of knowledge or a weak educational background. Systemic impediments appear as organisational structure issues, system politics, and the exclusion of certain professions from crucial management roles. Participants noted the shortage of nurses in important research development positions, the lack of invites to research discussions, and a nursing directorate at the federal level. Participants responded that those choices were decided for them, even on topics directly impacting nurses, demonstrating a lack of value accorded to nurses' participation. Participants remarked that the absence of invites to research formulation was common. Participants responded that the obstacles connected with knowledge development are apparent issues such as a lack of healthcare research expertise and financing. Participants agreed that insufficient school preparation is to blame for poor healthcare research knowledge.

Furthermore, practically all participants identified a lack of finance as a hurdle. Surprisingly, a study request for funding was never submitted by these nurses to their institution or other organisation. The following are actual quotes that back this up:

**FG1:** *"Nurses encounter several hurdles in producing research and policy, including finance". (Participant 27, 42years, female).*

**FG3:** *"Nurses don't want to engage in research because they don't get paid enough." That was the sense I received from every nurse I spoke with. And they tell you straight out, "I'm not being paid enough to perform research". (Participant 2, 45years, male).*

**FG2:** *"If you're going to overwork your nurses by incorporating research development into our work, you'd best pay more." But, on the other hand, if you put nurses through extreme research development stress circumstances, pay them more, which is just reasonable". (Participant 8, 38years, female).*

**FG3:** *"We don't have the time or resources to engage in healthcare research or policy creation". (Participant 30, 35years, female).*

**FG1:** *"Lack of resources, such as the internet, computers, printers, and access to evidence-based articles to be utilised as a guide in producing research and policy, are significant obstacles for us". (Participant 25, 34years, female).*

**FG2:** *"A lack of motivation on the side of nurses to engage in research since there is no incentive from the government or the institution" (Participant 29, 45years, female).*

**FG2:** *"Even initiatives that should be controlled by nurses, such as the nursing healthcare research committee, are hijacked." "Can you envision a research forum in the healthcare system without a medical doctor, yet no one would raise an eyelid if nurses were not invited". (Participant 6, 45years, female).*

**FG1:** *"Research cannot be separated from politics, and nurses despise politics, so how can they be engaged in research?". (Participant 26, 45years, female).*

**FG1:** *"No one wonders why implementers' ideas are not solicited or why a certain profession dominates the policy arena when the healthcare system is a mishmash of many experts trying to achieve the same health objectives". (Participant 23, 30years, female).*

**FG1:** *"Have you ever seen a nurse appointed as Chairman of Council or Commissioner for Health?" They are all political positions nurses cannot fill due to their lack of political activity". (Participant 24, 36years, female).*

**FG1:** *"Nurses are not and will not participate in research-creation; it requires a higher level of thinking". (Participant 16, 40years, female).*

Other participants believe that lack of nurse engagement is due to a lack of recognition in the healthcare research development and thanks from management and other healthcare administrators. Nurses often want to deliver the best care possible, but they might not feel recognised for their hard work and compassionate care attempts. In addition, many interviewees stated that poor earnings were a significant factor in nurses' lack of research development. Participants suggested different options for appreciating the work of nurses. One way is to introduce rewards and incentives. Others claimed nurses would be appreciated if spoken to in "encouraging words," or by "offering breaks," or "patting nurses on the back." In underdeveloped countries, healthcare research is always in progress. However, researchers confront difficulties selecting a study subject, statement, etc.

Furthermore, researchers encounter problems related to expansion, infrastructure limitations, and budgetary constraints. In Nigeria, healthcare research and human capital development confront huge hurdles (Campbell & Okuwa, 2019: 5). These difficulties include insufficient money, a shortage of equipment, facilities, and materials, a lack of knowledge, a lack of application of research findings, a poor ranking in human capital indexes, Brian-drain, and so forth. Therefore, the country's education policies and programmes must undergo a radical and far-reaching healthcare research overhaul to tackle these problems. This is because investing in education results in a more significant rise in human capital or human resources (Campbell & Okuwa, 2019: 6).

According to Hajizadeh et al. (2021: 3), one of the major causes of nurses' non-participation in healthcare research is a lack of understanding. According to the results of Hajizadeh et al. (2021: 3), poor knowledge and skills in research assessment and insufficient expertise on healthcare research formulation guidelines impede nurses' engagement in health policymaking (Hajizadeh et al., 2021: 3). The most reported reason in research was a lack of resources. A factor influencing nursing leaders' engagement in healthcare research was a lack of accessible resources. Furthermore,

a lack of support from other sectors, such as the political sector, government officials, or professional organisations, impeded nurses' minimal engagement in policymaking. Most variables influencing nurses' engagement are connected to management, and organisational aspects, highlighted in the included research (Hajizadeh et al., 2021: 2).

The formation of research activities requires a supporting organisational framework. Therefore, inadequate engagement of nurses in policymaking processes will persist in the future and many nations (Hajizadeh et al., 2021: 4). Nurses must recognise the significance of empowerment and involvement in healthcare research development. Creating an environment for nurses to engage with policymakers, decreasing the strain of their tasks, and using suitable leadership tactics may all benefit nurses in this area. Furthermore, the identified elements might be used to design instructional programmes to enhance nurses' knowledge and abilities (Hajizadeh et al., 2021: 3).

*5.3.2.1.3 Category 2.1.3: Propose solutions to research-creation*

Participants stated that healthcare research-creation solutions for nurses must be explored both inside and outside of nursing. They presented several alternatives that they believed would assist nurses in relieving their workload. They argued that employers and the government should encourage nurses to participate in healthcare research-creation to satisfy the demand for HIV and AIDS healthcare in Nigeria. All the participants agree on empowering nurses' research ability. This category covers participant-identified research empowerment tactics, such as incorporating research into the educational curriculum. However, this approach would only assist individuals starting in the nursing field. Some participants mentioned that workshops and in-house seminars should enhance nurses' research ability since classroom instruction does not give adequate expertise to do research. Some participants advocated for funding designated explicitly for nurses working in research development. Participants develop strategies for successfully including nurses in policy formulation. These initiatives included the creation of a curriculum, incorporating policy courses into higher education programmes, and group campaigning.

Some participants, for example, advised beginning with a policy-sensitive curriculum at the training school. Participants largely agreed on the development need for nursing research capacity via workshops in funding as well as urging nurses to act and identify research mentors. Building capability should be accompanied by finance. Furthermore, the participant intimated that to involve nurses in research effectively, a beginner must collaborate with an expert in healthcare research development.

Participants discussed their experiences with ways of actively engaging individuals in Nigerian society. Financially beneficial and societally honourable activities had positive outcomes. As a result, several participants agreed that it might be valuable to utilise research papers for employment and to promote and increase research.

Some have also proposed raising knowledge about research and its advantages, developing research competence among nurses to prepare them for research-related activities, and offering incentives to those currently involved in research. The majority of participants averred that supporting inter-professional concord and educational progress for nurses enhances political participation and capacity building. Participants agreed that initiatives should raise awareness about the importance of inter-professional collaboration in the healthcare system, where feedback from all stakeholders is solicited and respected. Participants also emphasised the importance of education in instilling competence and self-confidence. Participants also recognised the need for nurses to become active in healthcare system politics. Because politics pervades all elements of the healthcare system, collective lobbying via the government commissioner was suggested. However, the majority of participants commented that before implementing this option, nurses' ability in healthcare research formation should be increased to avoid "flaws" that reveal a lack of understanding of the subject. The following are actual extracts that corroborate the above assertions:

> **FG2:** "*If you want nurses to be active in research, I believe you should start with their curriculum and work your way up*". *(Participant 13, 38years, male).*

> **FG1:** *"The formal classroom education I get is equivalent to allowing me to pass my exams and go, but if we undertake some in-house training or capacity development, that will pique people's interest in research". (Participant 28, 41years, female).*

> **FG3:** *"Nurse research awards" would encourage nurses to engage in research activities". (Participant 28, 41years, female).*

> **II2:** *"This will effectively train nurses and sensitise them to healthcare research development". (Participant 15, 45years, male).*

**FG2:** *"The only way to include nurses in research is to have a research workshop followed by research funding". (Participant 5, 42years, male).*

**FG1:** *"If research becomes a requirement for promotion or employment, people will prepare themselves on their own by increasing their research abilities and respecting research courses or workshops". (Participant 11, 45years, female).*

**FG3:** *"Entering a forum where everyone has a diploma may be pretty scary for someone with a diploma, and the nurses might not be able to participate intellectually". (Participant 4, 45years, female).*

**FG1:** *"You can't separate politics from policy; the two are inextricably linked, one participant said". (Participant 11, 45years, female).*

**FG3:** *"The best method is to utilise our organisation to appeal to the state government via the Commissioner of Health, which is an issue of importance to me as a leader". (Participant 22, 45years, male).*

**FG2:** *"If you want nurses to participate in research, start by improving their understanding of their curriculum and working from there". (Participant 19, 49years, female).*

**FG1:** *"Nurses need assistance from companies and the government to resolve many of the problems that nurses face while engaging in healthcare research". (Participant 17, 42years, male).*

**FG2:** *"Employers and the government should establish a department inside the healthcare system to handle nurse research and policy creation". (Participant 29, 45years, female).*

**FG3:** *"Through self-encouragement and formal education, nurses must build a readiness to contribute to healthcare research and policy formulation". (Participant 31, 45years, female).*

Many healthcare research issues must be handled, but a lack of adequate solutions makes them challenging. Healthcare research can bring long-term solutions to some of the most pressing challenges confronting the healthcare industry. The application

of healthcare research in resolving healthcare issues stems from the fact that the healthcare model differs from traditional business models (Whitehead, Petticrew & Graham, 2020: 3). For example, healthcare research may assist the system in resolving cost-control challenges by investing in research to determine cost-control strategies that are most suitable to the healthcare system.

In addition, healthcare research may help with revenue definition difficulties. Revenue definition in the healthcare management system may be accomplished by investigating the most potentially lucrative items and services and how to provide them to the market (Hunter 2019:5). Nurses use several decision-making criteria and methods, recognising experienced nurses as crucial resources. Incorporating evidence into nursing practice remains a challenge for nurses (Nibbelink & Brewer, 2018: 4). Nibbelink and Brewer (2018: 4) posit that naturalistic decision-making may apply to decision-making nursing research. Nurse experience, the culture of the nurse practice environment, education, nurse comprehension of patient status, situation awareness, and autonomy are currently identified as influencing decision-making in nursing research. In addition, experienced nurses contribute a diverse set of prior patient contacts to their profession, affecting their intuitive, unconscious processes and aiding decision-making (Nibbelink & Brewer, 2018: 4).

### 5.3.3 Theme 3: Attitude of Nurses toward Research Development

Another subject of the study is nurses' attitudes toward healthcare research development. Many participants established nurses' unfavourable attitudes about HIV and AIDS research development in Nigeria. Pear's pressure developed as a sub-theme from the talks with participants. The researcher outlined this sub-theme in Table 5.3 below.

**Table 5.3: Sub-themes and categories of theme 3**

| Theme 3 | Sub-themes | Categories |
|---|---|---|
| **Attitude of Nurses Towards Research Development** | **Peer pressure** | • Difficulty making changes.<br>• Giving in to professional pressure. |

#### 5.3.3.1 Sub-theme 3.1: Peer pressure

Peer pressure is the internal or external pressure people feel to act in specific positive and harmful ways (Karimi & Masoudi, 2018:4). Peer pressure appeared as a sub-

theme with three additional categories: difficulties adjusting and professional pressure. These categories highlight nurses' apathy toward policy formulation and their participation in knowledge generation. This issue relates to nurses' relaxed attitude toward significant engagement in Nigeria's healthcare research development. Participants were subjected to peer pressure. This sub-theme emphasised nurses' overall disinterest in Nigeria's healthcare research development. The following are actual quotes that back this up:

> **FG1:** *"Let them manage the system as they see fit; I'll do what I can." However, if you raise the alarm, you may be relocated to a location where your voice will never be heard. Therefore, it is sufficient for nurses to be active in implementing HIV and AIDS policies". (Participant 12, 45years, male).*

> **FG2** *"Policy involvement or non-participation is not my concern; I don't even want it; if they want my input, they will ask for it". (Participant 2, 48years, male).*

The impact of peers is a crucial component in the engagement of nurses in HIV and AIDS-related healthcare research and policy creation in Nigeria. Peer pressure must be investigated when healthcare practitioners look for strategies to enhance their patient's health (Karimi & Masoudi, 2018: 4). Peer pressure occurs when you are persuaded to behave in a specific manner by others (your peers). The way pressure might vary is applied by peers. A peer, for example, could be intentionally provocative, taunting or persuade another to conform to their behaviour (Karimi & Masoudi, 2018:4). On the other hand, a peer could be reckless in their speech, treating or ignoring others as outsiders.

*5.3.3.1.1 Category 3.1.1: Difficulty making changes*

This category refers to a general complacent attitude among sure nurses about not aggressively campaigning for nurses to be included in HIV and AIDS policymaking in Nigeria. The participants show that nurses are aware of their anticipated role in policy but are unwilling to engage because they are afraid of the negative implications of their actions. The participants accept their predicament as policy implementers without complaint. Participants noted that nurses claimed they were unqualified to participate in any policy creation. On the other side, other participants believed they could not make credible contributions to policy settings. The following are actual quotes that back this up:

**FG2:** *"We all know that excluding us (nurses) from crucial decision-making is wrong, but what can we do?" Nobody wants to be blamed and lose their job". (Participant 31, 45years, female).*

**FG3:** *"When management wants us to know how to implement a new policy, they hold workshops; that's OK as long as we're compensated, and our body and soul are preserved". (Participant 13, 38years, male).*

**FG2:** *"Any policy creation is for Commissioners and Permanent Secretaries, and we don't have enough nurses to fill such positions". (Participant 23, 30years, female).*

**FG1:** *"We lack the necessary skills to make such contributions". (Participant 26, 45years, female).*

**FG3:** *"Policy engagement or non-participation is not my concern. I don't even want it. If they want my help, they'll ask for it". (Participant 29, 45years, female).*

Nurses are well-positioned to contribute to and lead the transformative changes in healthcare by being fully contributing members of the interprofessional team as we transition from episodic, provider-based, fee-for-service care to team-based, patient-centred care across the continuum of seamless, affordable. High-quality care (Salmond & Echevarria, 2017: 3). These changes need a new or improved set of wellness and population care knowledge, skills, and attitudes, as well as a renewed emphasis on patient-centred care, care coordination, data analytics, and quality improvement (Salmond & Echevarria, 2017: 2).

Transformative changes are taking place in healthcare. Nurses are well-positioned to contribute to and lead these changes due to their job, education, and respect. However, to play a substantial role in creating these changes, nurses must first grasp the forces driving the change, the requirements for practice change, and the competencies (knowledge, skills, and attitudes) required for personal and systemwide success (Salmond & Echevarria, 2017: 3).

*5.3.3.1.2 Category 3.1.2: Surrendering/ Yielding to professional pressure*

This category refers to Nigerian nurses' complacency in significant engagement in healthcare research and policy creation. Participants in this survey believe that research is just for academics. The majority of participants intimated that nurses do

not typically oppose the sequence of events impacting their research development involvement. They often adhere to the normal processes of nursing practice while removing research from their necessary tasks. Some participants linked research to activities in school contexts. However, they were still happy with their data collecting or data validation. Participants averred that healthcare research remained a feared field for some, while others placed little value on healthcare research activities since it did not lead to more gratifying nurse management roles. The following are actual quotes that back this up:

> **FG1:** *"Well, although research is important, I have never considered it a direct nursing role, particularly at the bedside." However, academicians are intimately engaged in this". (Participant 19, 49years, female).*

> **FG3:** *"Well, research is a 'no-go' area for me; I'm not taking part in any HIV and AIDS or other studies". (Participant 9, 43years, female).*

> **FG2:** *"Our employers have never emphasised the importance of research, and with such a demanding workload, we don't even think about it". (Participant 2, 45years, male).*

> **II2:** *"Research has always been a difficult issue, and most of us lack research ability; most of us will be seen collecting data for others; that is all we can do". (Participant 1, 45years, female).*

> **FG3:** *"Well, research isn't for me; I'm not interested in any HIV or AIDS research or anything else". (Participant 7, 36years, female).*

> **FG2:** *"I am not interested in research; I am aware that the worldwide HIV and AIDS task teams are". (Participant 11, 45years, female).*

> **FG1:** *"Well, bedside nursing isn't related to research; it's for students, not for me". (Participant 6, 45years, female).*

Several factors have been offered for nurses' lack of engagement in health policy and research development. The hurdles to nurses being more engaged vary by country (Aiken, 2018: 4). These include a lack of support, resources, and time for nurses to do

so at work due to professional pressure. Real professional pressure may sometimes prevent nurses from freely voicing their policy concerns (Aiken, 2018: 5).

Aiken (2018: 5) claims further that nurses lack confidence and abilities in policymaking and do not comprehend the distinctions or linkages between policy and politics. How often have you heard nurses complain about policies that are not well-thought-out, are underfunded or under-resourced, or were not developed with nurses in mind? (Aiken, 2018: 3). With many countries experiencing significant nursing shortages that are only projected to intensify, this has increased the strain on nurses who can no longer afford to participate in HIV and AIDS healthcare research and policy formulation. The entire foundation on which nursing functions to deliver safe, effective care is under attack (Aiken, 2018: 5). A lack of sufficient, well-educated nurses' results in increased patient workloads, increased patient morbidity and mortality, increased nurse burnout, decreased job satisfaction, involvement in more ethical issues in the workplace, unsafe work practices, and a greater intention to leave the profession, putting additional pressure on nurses to participate in the development of HIV and AIDS research and policy (Aiken, 2018: 5)

### 5.3.4 Theme 4: Measures to Improve Participation of Nurses in Research Development

According to the participants, measures to promote nurses' engagement in healthcare research development are the shared duty of all stakeholders, including nurses, employers, and the government. Accordingly, they advocated several measures that nurses, employers, and the government might implement to increase nurses' engagement in HIV and AIDS research. The research revealed two (2) sub-themes: individual efforts and organisational initiatives. These sub-themes will be examined in more detail below:

**Table 5.4: Sub-themes and categories of theme 4**

<table>
<tr><th>Theme 4</th><th>Sub-themes</th><th>Categories</th></tr>
<tr><td rowspan="2">Measures to Improve participation of nurses in research development</td><td>Individual initiatives</td><td>• Enhance the existing multidisciplinary team.<br>• A positive attitude by nurses toward research development.</td></tr>
<tr><td>Organisational initiatives</td><td>• Enhance communication.<br>• Provide ongoing training for nurses.</td></tr>
</table>

| | | |
|---|---|---|
| | | • Increase nurses' incentives for participation in research development.<br>• Provide adequate resources for optimal research development.<br>• Incorporate research in nursing education and practice. |

#### 5.3.4.1 Sub-theme 4.1: Individual initiatives

Individual efforts should be enhanced, according to all focus group participants. Individual cooperation, according to participants, is a collaborative effort by all nurses to increase the engagement of nurses in HIV and AIDS healthcare research and policy creation. The findings revealed two categories: improving the current interdisciplinary team and nurses' favourable attitude toward healthcare research development. These categories are detailed further below.

*5.3.4.1.1 Category 4.1.1: Enhance the existing multidisciplinary team.*

Participants agreed that strengthening the current multidisciplinary team would increase nurses' engagement in healthcare research and policy creation in Nigeria's HIV and AIDS transmission context. Most participants suggested well-structured cooperation with other health professionals to increase nurses' engagement. They recognised that all nursing units must collaborate on healthcare research and policy creation. They named physicians, physiotherapists, pharmacists, and psychologists as possible members of the multidisciplinary collaborative team. The following statements support the discovery:

> **FG2:** *"Holding a weekly interdisciplinary research development conference might increase involvement in research development by sharing fresh ideas, pushing others to participate, and resolving any problems". (Participant 14, 39years, female).*

> **FG1***: "Nurses, physicians, pharmacists, and psychologists must exchange ideas and support one another to increase nurses' engagement in research and policy formulation". (Participant 2, 48years, male).*

> **FG3:** *"By participating in the research development committee, nurses may strengthen their abilities to collaborate as a team in research and policy formulation". (Participant 11, 45years, female).*

> **FG1:** *"Every nursing unit must form a research development committee, and nurses must make every effort to attend committee meetings as required". (Participant 2, 48years, male).*

According to the WHO (2015:16), several disciplines in healthcare may operate more effectively as a team to assist enhance healthcare research and policy creation by establishing interdisciplinary cooperation, accepting working together, and respecting one another's opinions. For example, nursing care for HIV and AIDS patients necessitates collaboration with the primary care provider (physician) and other disciplines engaged in continuous care (Anon, 2021: 286). The interdisciplinary team fosters a favourable atmosphere and strong interactions among nurses (Comer & Rao, 2019: 66).

*5.3.4.1.2 Category 4.1.2: A positive attitude by nurses toward research development*

Although most of the participants in this survey reported interest in healthcare research development, most had never participated in it. Even those who have previously participated were compelled to do it again. Participants indicated few impediments to healthcare research use and a moderate perception of healthcare research development. The following statements support the discovery:

> **FG2:** *"Nurses must have a favourable attitude toward research development since we deal with them daily". (Participant 29, 45years, female).*

> **FG3:** *"I feel that if no one creates the research and policies that we are now employing, it will be difficult for us to work as nurses and share evidence-based practice". (Participant 30, 35years, female).*

> **FG1:** *"If nurses have a positive attitude toward research development, more nursing will be able to be shared among nurses, and new nurses will benefit from the experience of older nurses". (Participant 17, 42years, male).*

**FG2:** *"Without a positive approach in research and policy creation, the nursing profession would be overlooked worldwide". (Participant 28, 41years, female).*

The capacity of nursing practitioners to refresh their knowledge and use up-to-date, evidence-based treatments in the performance of their tasks is critical to providing excellent nursing care to patients. Every day, fresh evidence is discovered in healthcare (Huiting, 2017: 4). In addition, Huiting (2017: 4) intimates that nurses' ability to adapt to these changes have the potential to substantially influence the quality and safety of the healthcare provided. Furthermore, new knowledge must be assimilated and utilised in healthcare delivery following the basic standards of nursing. In addition, participation in healthcare research and policymaking allows for evidence in care delivery (Huiting, 2017: 4). The findings give an insight into nurses' obstacles, perceptions, knowledge, and engagement in healthcare research and policy creation, adding to the body of knowledge on nurses' perspectives on healthcare research development (Huiting, 2017: 4). Despite the hurdles, the desire for healthcare research development remains one of the top concerns for nurses in many contexts, requiring nurses to give effective, safe, and efficient care (Huiting, 2017: 4).

#### 5.3.4.2 Sub-theme 4.2: Organisational Initiatives

Jamison and Edwards (2019: 51) aver that healthcare research development initiatives are relevant interventions that promote nurses' engagement in healthcare research and policy creation. In this regard, RNAO (2018: 44) suggests that organisations should understand that all nurses have the right to the most acceptable research development in their workplace. The healthcare research revealed five categories, with further information on each following:

##### *5.3.4.2.1 Category 4.2.1: Enhance communication*

Participants indicated improved communication as an important factor in increasing nurses' engagement in healthcare research and policy creation. They suggested that effective communication techniques, such as proper communication among nurses, enable them to exchange ideas and urge others to engage in healthcare research and policy formulation. The following statements corroborate the findings:

**FG1:** *"Keeping open and effective communication amongst nurses throughout the creation of research and policy may aid in boosting nurses' engagement in research development". (Participant 25, 34years, female).*

**FG3:** *"I need to interact with other nurses during research and policy creation in a manner that others can relate to by asking basic and straightforward research and policy questions". (Participant 18, 34years, female).*

Several studies supported the conclusion that open communication in healthcare research development teams lead to better results (Kaasalainen et al., 2019: 667). Kourkouta and Papathanasiou (2018: 65) mention that communication skills are critical and essential in nursing. Nurses' jobs require talking with patients from various educational, cultural, and social backgrounds. Therefore, nurses must be practical, compassionate, and professional when communicating with colleagues and patients (Kourkouta & Papathanasiou 2018:66).

*5.3.4.2.2 Category 4.2.2: Provide ongoing training for nurses.*

Participants recommended providing staff with ongoing training opportunities and support in healthcare research development in all the focus groups. They believed this could contribute to nurses' participation in healthcare research development and future growth. In addition, all participants emphasised the need to understand and be aware of existing healthcare research and policy protocols. The statements that follow confirm the finding:

**FG2:** *"You can only know what you are taught and trained for; our management must organise in-service research development training to assist us to enhance our abilities". (Participant 5, 42years, male).*

**FG1:** *"For me to participate, I need to be taught the new methodologies and kept up to speed on the newest research and policy changes". (Participant 10, 40years, female).*

Several studies have demonstrated the need for continued healthcare research development for nurses (Kaasalainen et al., 2019: 667). In addition, in-service training that empowers nurses may increase their engagement in research and policymaking while also improving patients' quality of life (Chaghari et al., 2017: 32). New employees must be orientated to the organisation's research development, processes and practices, and continuous professional development (RNAO, 2018: 44).

*5.3.4.2.3 Category 4.2.3: Increase nurses' incentives for participation in research development*

Participants recommended increasing nurses' engagement in healthcare research development projects via incentives might increase nurses' participation. They argued that nurses should be included in decision-making, including the possible prevention of HIV and AIDS transmission in Nigeria. They acknowledged nurses' contributions to critical healthcare research and policy initiatives, particularly for HIV and AIDS patients in Nigeria. The verbatim quotations that support the conclusions are as follows:

> **FG2:** *"Nurses are an excellent source of healthcare knowledge throughout HIV and AIDS therapy; I simply believe we need to get them more engaged in research development by giving them an incentive to participate in research development". (Participant 3, 40years, female).*

> **FG1:** *"I will advocate for nurses to be given incentives and funds so that they may recognise the value of research and policy creation and participate". (Participant 12, 45years, male).*

> **FG3:** *"As you may know, doctors get a lot of incentive for all the little things they do outside of their typical duties; I'm curious why this isn't the case for nurses". (Participant 8, 38years, female).*

Clinicians identified several other potential enablers to reduce barriers and improve their ability to participate in research, including compensated time for research, academic collaborators, research support staff, mentorship, and electronic health records (Bakken et al., 2019: 3). Creating a realistic budget that covers the expense of the study is one of the most important techniques for nurses working in research and policy creation (Bakken et al., 2019: 3). Positive (e.g., monetary or academic incentives) and negative (e.g., worries about clinical productivity) feedback gained from clinical research involvement are reinforcing variables that might encourage nurses' engagement in research and policy formulation. Professional advancement, continuous medical education, engagement with university researchers, and acknowledgement as a reward for members or research partners were all-important motivations.

*5.3.4.2.4 Category 4.2.4: Provide adequate resources for optimal research development*

Participants agreed that nurses need appropriate resources for research and policy formulation and the ability to employ them. Participants also recommended that increasing culturally congruent research development would improve nurses' research development quality in Nigeria. The following statements support the discovery:

> **FG1:** *"In research development, I need to be given resources to participate in research development for me to be interested in research development". (Participant 4, 45years, female).*
>
> **FG3:** *"Adequate research development resources are required for nurses' engagement in research development; thus, our management must create a provision for resources to enable optimum research development, which will lessen the obstacles I confront". (Participant 22, 45years, male).*
>
> **FG2:** *"Many of our nurses are from other cultures; developing a cultural resource for research development is critical to improving their engagement in research development". (Participant 15, 45years, male).*

Olajumoke, Yemisi, and Gabriel (2021: 3) argue that the availability of educational resources has always been regarded as an essential and integral part of nursing administration, geared toward the improvement of all other factors in the healthcare and nursing process, thereby ensuring quality service delivery by nurses to society. As a result, the success of nursing in Nigeria is dependent, among other things, on effective nursing administration with good leadership, proper time management in the healthcare system, adequate financial resources allocated to healthcare, regular training and re-training of nurses, perfect interrelationship with the community, and creative use of the available resources in the healthcare system (Olajumoke, Yemisi & Gabriel, 2021: 3).

*5.3.4.2.5 Category 4.2.5: Incorporate research in nursing education and practice.*

Participants felt that integrating research into nursing education and practice may boost nurses’ morale, resulting in more research and policy formulation engagement. They emphasised the organisation’s need to use effective, universal research development methodologies to increase the quality of research development. The following exact quotes support this conclusion:

**FG2:** *"If our management implements research into practice, nurses' morale and feeling of belonging will improve. Therefore, nurses' engagement in research and policy formulation yields the most outstanding results". (Participant 21, 40years, male).*

**FG3:** *"We must include standardised research development techniques into nursing education and practice to lessen nurses' burden". (Participant 27, 42years, female).*

Kaasalainen et al., (2019: 668) confirm the established advantages of integrating research into nursing education and practices. However, RNAO (2018: 34) states nurses must have an acceptable workload to offer sustained research development. Furthermore, employers are accountable for providing suitable opportunities for nurses to participate in research and policy creation.

## 5.4 SUMMARY

The data analysis and summaries of the healthcare research results were provided in this chapter. The findings were discussed in with regard to HIV and AIDS transmission in Nigeria, the implementation of HIV and AIDS plans, the participation of nurses in healthcare research development, the involvement of nurses in healthcare research development, the attitude of nurses in research development, and measures to improve nurses' participation in healthcare research development.

The participants' original statements were cited and referred to, and interpreted in tandem with all the themes, sub-themes, and categories. The acquired data and resultant findings provided more insightful knowledge and information concerning the participants' understanding of HIV and AIDS strategies and nurses' contributions to healthcare research development across all contexts. The majority of participants had a thorough awareness of the effect of HIV and AIDS on society and healthcare systems. They also showed an excellent understanding of the different HIV and AIDS preventive measures but lacked healthcare research-related knowledge.

The next chapter provides further details on healthcare research interpretations, the main research results, suggestions, and conclusions emanating from the study.

# CHAPTER 6
# DISCUSSIONS OF FINDINGS

## 6.1 INTRODUCTION

The previous chapter presented the actual findings emanating from the participants' input, perspectives, and knowledge during both the in-depth interviews and focus group discussions in relation to strategies to enhance nurses' participation in healthcare research in the context of HIV and ADS transmission in Nigeria. These participant perspectives were in response to the research aim as articulated in Section 1.4 of the study, namely: *To develop strategies that enhance nurses' participation in healthcare research on HIV and AIDS transmission in Nigeria.*

Given the above, the current chapter then highlights the main aspects of the findings **(which have already been articulated in greater detail in Chapter 5).** It is worth noting that the thematically organised findings themselves were also a direct response to the below-cited research objectives as stated in Section 1.5 of Chapter 1:

- To explore nurses' contributions to healthcare research development.
- To explore Nigerian nurses' involvement in healthcare research in respect of the transmission of HIV and AIDS.
- To describe the factors that support or restrict Nigerian nurses' participation in healthcare research formulation; and
- To develop strategies for engaging nurses in active healthcare research.

Emanating from the above-mentioned research objectives in conjunction with the findings in Chapter 5, the main study findings premised on the following generated primary themes:

- Nurses' awareness of the availability of HIV and AIDS research.
- Participation of nurses in research development.
- Attitude of nurses toward research development; and
- Measures to improve participation of nurses in research development.

The chapter further presents the researcher's own recommendations accrued from the findings in Chapter 5. It is worth stating that in addition to providing an improvement framework in the field of investigation, the recommendations also serve as framework for the significance or implications of the study in its disciplinary, methodological, and practice-related contexts. Finally, the chapter concludes with possible limitations of the study.

## 6.2 SUMMARY OF MAIN FINDINGS

The main findings of the study were thematically presented in Chapter 5 under the following headings: Section 5.3.1 to Section 5.3.4. For purposes of thematic coherence and logical presentation, the main findings in this section are presented in approximately similar sequence as they emerged and were captured in Chapter 5 together with their associated sub-themes or categories and related sub-categories.

### 6.2.1 Nurses' Awareness of the Availability of HIV and AIDS Research

The depth of the participant's understanding of the different plans utilised to mitigate the effect of HIV and AIDS is explored in the heading:

- Understanding of global research.
- Understanding of local research.
- Understanding of the barriers to HIV and AIDS research implementation.
- Implementing local and global research.
- Essential of the nursing role.
- The essential role of collaboration with partners.

The setting and context in which stakeholders work provided a unique opportunity to understand the effect of HIV and AIDS on health care institutions and the general public due to person-centred care that is delivered by registered nurses overseeing the majority of primary health care institutions in their communities. The healthcare workers are aware of the effects of developing diseases on persons in the community and the many health institutions in which they serve. This discovery is compatible with that of Ndikom and Onibokun (2019: 18), who agree that nurses' expertise is created due to their experiences delivering health care in each of their service delivery contexts.

Similarly, Nigeria's Federal Ministry of Health (2022: 12) noted that stakeholders were aware that HIV and AIDS is most prevalent among the most vulnerable population. Furthermore, the Nigerian Federal Ministry of Health (2019:5) noted that the health sector's distinct responsibility included coordinating and directing HIV and AIDS responses warranting healthcare partners (including nurses) be completely informed of their local settings pertaining to HIV and AIDS. Consequently, to execute HIV and AIDS programmes, nurses must have in-depth awareness and strong knowledge of

the extensiveness and effect of HIV and AIDS on the country, communities, families and individuals.

Nurses must have a complete awareness of the effect that HIV has on a compromised healthcare system, similar to the opinions of El-Jardali and Lavis (2018: 8). Further asserting that chronic illnesses such as HIV and AIDS greatly influenced the health system of its victims, depleting the limited human and material resources. According to Osain (2019: 5), the Nigerian health care system is insufficient in dealing with chronic and emergent illnesses, which is aggravated by a lack of resources such as pharmaceuticals and medical supplies, poor infrastructure, and dismal quality of treatment. Furthermore, Avert (2017: 6) states that Nigeria's HIV and AIDS programme is at risk, with various obstacles obstructing the fulfilment of established targets even after its decentralisation from tertiary healthcare institutions to secondary and primary health care institutions. Consequently, difficulties such as inadequate healthcare systems, a lack of human resources, especially in rural regions, and poor use of maternal and child healthcare services exist.

The role of Nigerian registered nurses in HIV and AIDS prevention includes all four prongs, beginning with preconception (in the provision of health education related to reproductive health, such as HIV and AIDS counselling, safe sex practices, and testing and treatment) and the prenatal, perinatal, and postnatal period continuance (providing antiretroviral therapy to the HIV-positive patient, infant feeding counselling, and antiretroviral prophylactics to exposed patients). In addition, registered nurses are responsible for gynaecological and family planning services (Ogbolu et al. 2018:6). Like others highlighting the importance of research in overcoming implementation restrictions, this study recognised research as an HIV and AIDS strategy (Avert 2017:5). Avert (2017:6) further identified HIV and AIDS preventive capacity development as a critical method for ensuring consistent, standard, and high-quality HIV and AIDS prevention services throughout the nation.

### 6.2.2 Participation of Nurses in Research Development

With nurses becoming more aware of the consequences of HIV and AIDS on the healthcare system, it is expected for nurses to be engaged in HIV and AIDS research (Glied & Lurie, 2018: 6). However, this study found a lack of nurse engagement in either individual or group-initiated research investigations. In addition, no nursing staff members were engaged in any HIV and AIDS-related research in the study environment owing to a lack of knowledge/skills in launching or running a research

project (as data collectors) and a general lack of interest, as indicated in previous studies that Nigerian nurses associate as research consumers rather than creators (Asuquo et al., 2018: 4).

Nigerian nurses obtain large amounts of data while performing their daily care activities and other services. Nonetheless, the collected data is not utilised to advance their research studies. Similar results of nurses' non-participation in research are found in both low-income and rich nations (Glied & Lurie, 2018: 6). According to the findings of this research, most nurses gathered research-related data without understanding the meaning of the result, or how the data would be utilised. The lack of insightful examination of research findings and distribution of such findings often reflects a lack of awareness for the rights and privileges of other individuals, demanding the right to be inclusion in research works. This perspective agrees with that of Edward et al. (2018: 4), who contend that the efforts of nurses in data gathering are seldom recognised in research reports and publications of low- and middle-income countries. Regardless of whether nurses are encouraged in their function as data collectors, their duty as lead investigators may be impeded by ingrained attitudes regarding the relevance of nursing research.

In assessing the degree to which healthcare workers participate in research, it was highlighted that they are largely the subject of study (research on nurses) or data collectors for others (Roxburgh, 2019: 3). Therefore, nurses are not involved in the planning or administration of the research project, as most Nigerian nurses are data collectors or passive observers, turned passive consumers of research reports due to few healthcare workers advancing to roles of active creators of nursing research. According to Edwards et al. (2018:6), many nurses struggle with full engagement in research, dissemination, and the use of research results. In the same vein, Ogbolu et al. (2018:5) emphasised that the burden of HIV and AIDS would have been decreased had the Nigerian implementers (nurses) provided evidence-based studies. Instead, there is perpetual reliance on worldwide HIV and AIDS recommendations with scant research investigations examining the evidence's application in Nigerian practice contexts.

Participants were mostly reluctant to undertake their own research studies, which reduced their capacity to successfully fulfil healthcare objectives. Such a situation demonstrates a poor impression of the research capability compared to other stakeholders favoured above themselves in knowledge development (Glied & Lurie, 2018: 6). This perspective elevates the successes of numerous stakeholders while

ignoring the contributions of nurses as actual change agents who are in the forefront of HIV and AIDS prevention, treatment, and management initiatives (Habermas, 2018: 7). As a result, nurses' incapacity to research may keep them in inferior positions or powerless conditions governed by organisations interested in knowledge development.

### 6.2.3 Attitude of Nurses in Research Development

The findings of this study showed that nurses are typically unconcerned about their involvement in HIV and AIDS research and research formulation. In this regard, Weber (2018: 24) observed that the general apathy of nurses toward their participation or non-participation in health care system research formulation was emblematic of submission to dominance, coercion or submission to prominence ensued by power, often through authority. As such, those who are governed remain mute in the face of apparent injustice, content with whatever condition that is presented to them (Gaventa & Barrett, 2010: 5). As demonstrated in this research, the absence of conflict is an indication the product of the purposeful employment of power mechanisms to ensure the governed (nurses) remain in quiet conformity with their circumstances.

For instance, it is extremely unusual for a fresh medical school graduate to be considered for a management position in a specialised health unit of the department where there are extraordinarily experienced and competent professional nurses. To further marginalise the nurses, they are assigned to training and orientating to the incoming "boss," the physician. Nurses’ complacent attitude toward non-participation is possibly related to impotence and fear of the unknown, such as being relocated, or losing employment. According to Foucault (2019: 13), the interaction of power conceals and displays itself subtly. Nurses accepted the status quo in the research environment and are convinced that research development was not for them. Sharif (2015: 4) further acknowledges that nurses typically regard themselves ‘condescendingly’, in comparison with other healthcare and medical professions. Nurses are silent in such matters as a response to a hierarchical communication pattern and an internalised penalty threat (Sharif, 2015: 4).

The majority of healthcare providers’ view nursing via a socially constructed lens, and their functions are thought to be founded or established via the agreed-upon philosophies of the health care system that are powerful and serve as the prism through which nurses see themselves McDonald (2010: 4). According to various

health workers in the survey, their lack of research engagement was typical. This matter exists from a long time ago, and has proved problematic to resolve (Habermas, 2018: 22). Consequently, the path ahead for such persons is the conscientisation of subjective evaluation of personalised contributions to HIV and AIDS research and liberation from history and biography, which have impacted the responsibilities and societal expectations self-perceptive individuals (McDonald 2010: 4).

According to the health workers in the survey, their lack of research engagement was typical in a situation that has existed for many years. As a result, they are either missing or doing unnecessary research, transforming into a nurses' ideology which Habermas (2018: 34) described as the most significant hindrance to human liberty. Attributed mainly to increasing workload and other professional pressures, many nurses then believe research is not their primary objective, leading to a lax attitude toward research production. Priest et al. (2019: 5) remarks that nurses questioned the importance of nursing research and its rationale in developing nursing research competence. While investigating the opinions of nurses on research in three teaching hospitals in Nigeria, Ofi et al. (2018: 6) reported a similar scenario. It was further established that clinical nurses outsource research production to university academics.

However, authors such as Roxburgh (2019: 5) contend that, despite the need to maintain an existing practice, not all nurses should be engaged in research. The latter author believes that most nurses are disinterested in "doing research," and their involvement in research does not convert into design and administration. It is, however, still confined to collecting data for use by other academics. Nigerian studies highlight, the considerable indifference and even anxiety when beginning a research project, in which case the 'easiest' way is to let others gather data (Asuquo et al., 2018: 6).

Research was made a required component of nursing education by the Nursing and Midwifery Council of Nigeria in 2004. Since then, research is compulsory in nursing diploma programmes, and research projects are a compulsory requirement for nursing graduates. However, as nurses graduate from school, their beliefs and attitudes about research are influenced by the working culture, resulting in indifference toward research production (Edwards et al., 2018: 4). Furthermore, Ofi et al. (2018: 5) alluded to scepticism about general research in Nigeria, most likely due to research not being employed as a predictor of career advancement in the Ministry of Health. People

whose values have been muddled might evaluate their conditions in a fresh light using critical thinking, self-reflection, and self-knowledge (Habermas, 2018: 24).

### 6.2.4 Measures to Improve Participation of Nurses in Research Development

The impact of nurses on health research protects care quality by giving access to required resources and opportunities (Arabi et al., 2014: 5). This is a novel and vital idea for nursing; nevertheless, research studies on nurses' research impact in the health care sector lack a fundamental conceptual grasp of what this notion signifies (Dowswell et al., 2010: 4). In addition, nurses have varied viewpoints on healthcare issues and have different influences on health care legislation. However, nurses will recognise the significance of research undertaking in the health sector and their effect on this process and patients' outcomes, given the common understanding of the nurses' research influence as a concept (Dowswell et al., 2010: 5).

Nurse leaders have an essential part within the healthcare system (Dowswell et al., 2010:6). Accordingly, nurses should influence healthcare research, instead of becoming perpetual implementers who are incapable of better governing their practice by taking an active role in formulating health research. To solve professional issues, caregivers must learn research-making skills. Nurse executives bring unique and critical viewpoints on health issues because of their ideals, professional ethics, advocacy abilities, and experiences (Arabi et al., 2014: 4). The presence of nurses, their status, and impact in the workplace have expanded in recent years. Moreover, nurses must identify issues proactively and engage with other decision-makers to improve healthcare research. To that effect, they should understand the various levels of power in their organisations and who controls the healthcare resources (Dowswell et al., 2010: 6).

The impact of nurses on health research preserves patient safety, improves care quality, simplifies access to needed resources, and promotes excellent health care (Dowswell et al., 2010: 6). As a result, the idea of research impact in nursing is novel and necessary, but there is a lack of conceptual clarity about what it entails. Primary care groups at primary care centres spoke with local nurses about the required fields in care services and acknowledged that contact with nurses was successful (Dowswell et al., 2010: 5). However, in comparison to other health professionals, the findings of a study regarding health managers' and authorities' assessments of the influence of different health professions on the revision of health affairs indicate that nurses are in the sixth (last) grade with a dominating point interval (Dowswell et al. 2010:5).

### 6.2.5 Educating Nurses about Research

Non-engagement of nurses in these crucial areas is due to a lack of knowledge in research, politics, and lobbying (Dowswell et al., 2010: 5). Nurses must have the knowledge, skills, and attitudes to sit at decision-making tables and be more actively involved in research making and change across the globe. This will pique their interest in participating in research making (Arabi et al., 2014: 4). As a result, well-thought-out research training programmes are required for nurses. In addition, such programmes should prepare nurses to be more politically aware to assist in establishing laws, getting access to, and effectively using resources to improve people's health (Dowswell et al., 2010: 4). Politics and research are critical to the quality of health care and population health. Moreover, they influence nurses' working environments and conditions (Arabi et al., 2014: 5).

National nursing associations and other nursing organisations, nurse regulatory agencies, nurse leaders, and educators were requested to address the issues as they strategise on nursing research training and its implementation and support in their respective countries. This entails examining and changing the curriculum to integrate the research to varying degrees in all programmes (Arabi et al., 2014: 4). Teaching an overview of research and research making, as well as the role of nurses in this process, is one example of the undergraduate level, while at the master's and PhD levels, giving more critical research, politics, and advocacy curriculum and skills training is another curriculum content are that may be offered as stand-alone courses or extensions of existing systems (Dowswell et al., 2010: 4). Furthermore, as part of a continuing education plan, all nurses should have access to research training through several teaching methods and access points, such as online and workplace forums and research mentoring (Arabi et al., 2014: 5). Nurses at all stages of nursing school may benefit from this training to grasp the relevance of research and advocacy in patient care and healthcare systems (Dowswell et al., 2010: 6).

It is vital to learn from nations where nurse research engagement has increased and proved beneficial, such as the United States and the United Kingdom. It's also critical to understand and exchange experiences with other disciplines, such as medicine, which has a lengthy track record of effectively influencing health research (Arabi et al., 2014: 4). Interdisciplinary mentoring may assist nurses by teaching them excellent methods for informing and executing research initiatives (Dowswell et al., 2010: 5). Implementing workplace interdisciplinary clinical forums in partnership with

knowledgeable academics to develop research and advocacy strategies will aid in the development of health leadership and nurses' research making and advocacy abilities (Dowswell et al., 2010: 4).

### 6.2.6 Health Research in Nursing

According to a literature study, nurses' engagement in health research studies is still infrequent. Yet, health research has enormous potential (Dowswell et al., 2010: 5). Evaluating health research, legislation, and regulations at the graduate and post-doctoral levels is crucial to understanding how to construct health research that helps the public's health while also extending nurses' knowledge of how complex health systems function (Arabi et al., 2014: 6). Studies aimed at better understanding how individuals might gain greater access to health and health equity will assist researchers, health leaders, and the nursing profession. Nurses throughout the globe must learn how to develop, propose, and execute new healthcare policies (Dowswell et al., 2010: 5). Through research, nurses may gain skills that will help them to be accepted, respected, and better educated where it counts, enabling them to be recognised as health professionals with research and advocacy talents. In addition, they can assist researchers in implementing Universal Health Coverage and the Sustainable Development Goals by giving better information (Arabi et al., 2014: 6).

As a result, nurse leaders must unite to provide genuine opportunities for nurses to become more aware and active in research and advocacy. The time is right for this, and now more than ever, we must follow Florence Nightingale's example in convincing governments to enhance health and health care (Arabi et al., 2014: 4).

Academic and professional institutions are essential in assisting nurses in their quest of acquiring skills and competencies required to address health and healthcare inequities. Professional nursing education programmes must aid nurses in developing abilities (e.g., political leadership, teamwork) as well as qualities (e.g., influence, professional credibility) necessary for nurses to participate in global health and health reform (Arabi et al., 2014: 6). Leadership, critical thinking, and data management skills are required to gather and analyse data to influence clinical, research, educational practice, and research to enhance health system performance (Premji & Hatfield, 2016: 2). Nurses seem to be strong at adjusting and executing policies but not formulating policies. Interprofessional education that promotes networking, cooperation, non-hierarchical connections, and shared objectives will break down

professional silos and the exclusion of nurses from research discussions (Premji & Hatfield, 2016: 2).

### 6.2.7 Nursing Practice and Nursing Education

The process of producing health policies must be pluralistic and inclusive of all nurse leaders who work in research development roles (Premji & Hatfield, 2016: 4). Furthermore, nurse leaders must proactively re-examine their roles in health research formulation and formalise these obligations by incorporating involvement in healthcare research development in job descriptions. Leaders must also build capabilities that promote inclusiveness in the process. Finally, nurse leaders must advocate and create an enabling environment to promote greater proactive involvement for nurses- in this sector (Premji & Hatfield, 2016: 4).

## 6.3 SUMMARY

The discussion of findings of the focus group and in-depth interviews with the registered nurses who were working at the HIV and AIDS unit were discussed in this chapter, both the findings were similar and related as the registered nurses' research development needs were fitting to the challenges the participants brought to light, that assisted in the merging of the finding. Literature control was done on the findings and presented following the merging. The focus group discussions and in-depth interviews have shared valuable needs and challenges in their practices as registered nurses in HIV and AIDS unit care and render healthcare services to their patients and will assist in the formulation of strategies to improve the participation of registered nurses in healthcare research development in the context of HIV and AIDS transmission in Nigeria.

# CHAPTER 7

## 7.1 STRATEGIES TO ENHANCE NURSES' PARTICIPATION IN RESEARCH.

This study aimed to develop strategies that enhance nurses' participation in healthcare research on HIV and AIDS transmission in Nigeria. The development of such strategies is intended to enable the exploration and identification of reasons for nurses' non-implementation of the available healthcare research strategies. The identified patterns of corporate strategy in the form of a management framework that emerged from the research can be used to build strategies to enhance nurses' participation in healthcare research development. Chapter One outlined the background of the research, objectives of the research and identified the research questions. Chapter Two reviewed the literature and also highlighted the need for further investigations within the area of strategy to enhance healthcare research development and justified the research questions. Chapter three presented the theoretical framework in which the study was developed. The research methodology was presented in chapter four. Chapter Five presented the findings and interpretation of this study. The previous section gave an overview of the analysis technique, which was used to gather results. First of all, overall findings were described in Chapter 6, where the participants' responses were sequentially presented including their process of strategic analysis and opinions on the impacts of research development by registered nurses in the context of HIV and AIDS transmission in Nigeria. All those findings included quotes stated by the participants. In chapter seven, the strategies to enhance nurses' participation in healthcare research development in the context of HIV and AIDS transmission in Nigeria would highlight the gap for further research.

This study discussed effective strategies for increasing the participation of Nigerian nurses in HIV and AIDS research development. Nurses' participation is critical because they play an important role in providing care and support to HIV and AIDS patients. This study looked into ways to encourage Nigerian nurses to participate in research and help fight HIV and AIDS. A variety of strategies can be used to encourage Nigerian nurses to participate in HIV and AIDS research development. These include raising awareness through education and training, facilitating access to research opportunities, enhancing resources, and fostering supportive environments. This study went into greater detail about these strategies. Nurse researchers in each healthcare system used different strategies to overcome barriers with supportive executive nurse leadership.

Nurse researchers in healthcare settings have the potential to generate and apply new knowledge to help guide nursing practice and improve outcomes (Birkhoff et al. 2020). Nurses' involvement in research and policymaking can be increased by empowering themselves and their professional roles through education, raising awareness, and improving the social image of nursing (Inayat et al, 2023:300). Nurse leaders, national and global nursing associations, and nursing regulatory bodies should collaborate with nursing college associations to develop a framework for nurse policymaking competencies and contextually tailored strategies to increase nurses' participation in research and policymaking (Inayat et al, 2023:300).

The World Health Organization (WHO) defines health policies as "decisions, plans, and actions taken to achieve specific healthcare goals within a society" (Hajizadeh et al. 2021). Because these policies are derived from healthcare research development, there is a need to improve strategies for nurses in Nigeria to participate in healthcare research development. Furthermore, WHO emphasises that health policy and practice necessitate actions from multiple sectors, and decisions made in these sectors must be responsive and sensitive to health concerns (Hajizadeh et al. 2021). The ultimate goal of health policies is to benefit the public. It is divided into three stages: policy formulation, policy implementation, and policy reformation (Hajizadeh et al. 2021). The instruments to achieve the goals of healthcare are healthcare research and policies.
When developing healthcare research and policies, nurses must be motivated to participate in the research and policy-making processes. Nurses, for example, can have an impact on healthcare policies, laws, and regulations based on their experiences (Hajizadeh et al. 2021). For three reasons, nursing staff are encouraged to participate in healthcare research and policy. Firstly, nurses have frequent contact with patients and their families in a variety of settings; thus, their observations can be considered valuable sources for research and policy development. Second, various healthcare research and policies have an immediate impact on nurses. As a result, healthcare research and policy development should promote a positive work environment. Third, nurses play an important role in professional development and can significantly contribute to the formation of organisations. The International Council of Nurses (ICN) emphasises and supports efforts to improve nurses' readiness in the development of healthcare research and policies (Hajizadeh et al. 2021). However, due to a variety of obstacles, their participation is frequently limited. This research looked at these obstacles and how to overcome them. Active involvement of nurses in research ensures that healthcare practises and policies are evidence-based, resulting

in more effective HIV and AIDS care, better patient outcomes, and a stronger healthcare system (Amicucci et al., 2022).

## 7.2 PROCESS OF DEVELOPING THE STRATEGIES

The proposed strategies were formulated based on the key areas' challenges of registered nurses in healthcare research development. The development of the strategies were guided by the theoretical framework outlined in Chapter 3. The framework comprises adopted theoretical perspectives, social-ecological model theory, paradigm of structure, process and outcome, disease diffusion theory and system research organising model. These theoretical frameworks were used to adapt the key areas of the challenges of registered nurses in participation in healthcare research development in the context of HIV and AIDS transmission in Nigeria.

## 7.3 FORMULATION OF THE STRATEGIES

This section presents the strategies for improving the participation of registered nurses in the development of healthcare research in the context of HIV and AIDs in Nigeria. The strategies are therefore formulated from the key areas of needs and challenges resulting in the study findings. Each strategy is preceded by an objective and the relevant narrative from the study participants and the activities that may improve registered nurses' participation in healthcare research development and support the patients who are suffering from HIV and AIDS in Nigeria.

## 7.4 DEVELOPING THE STRATEGIC INTERVENTION

To describe the process and principles for developing the strategic intervention, a literature review was conducted. Google Scholar and the UNISA library and repository were used to access e-books, e-journals, and textbooks for research purposes. The search terms were “strategy”, “intervention”, "research-based intervention strategy”, “research”, “steps in developing a strategic intervention”, “evidence-based strategic intervention” and “implementation of an intervention strategy”.

**Table 7.1: Strategic Development Phase**

| Development Phase | Objective | Technique | Purpose |
|---|---|---|---|
| Strategies development phase | Development of the strategic intervention. | Combine data from focus interviews and in-depth interviews on the development of strategic interventions. | Analysed data from data collections and literature review utilised to develop the strategic intervention. |

## 7.5 WHAT IS A STRATEGIC INTERVENTION?

An intervention, according to Hiligsmann et al. (2020:180), is the most appropriate practical and theoretical application chosen to address and resolve an existing problem. A strategy is a method for achieving goals or finding solutions to problems (Hill & Jones 2019:1). It is a long-term plan of action that specifies resources and other activities to achieve the desired result (Duke & Denicolo 2017:1), such as the steps required to improve academic performance (Nickols 2016:1). In the context of this study, strategies are proposed, recommendations are made, and solutions are developed to provide registered nurses with the necessary assistance in developing competencies to participate in healthcare research development to improve the outcomes of HIV and AIDS patients in Nigeria.

## 7.6 WHAT IS AN ACTION PLAN?

An action plan is the process of converting strategies into actions, making ideas a reality (Poister, Edwards & Pasha 2013:1). Following the determination of the strategies, the process (action plan) required to address each strategy and the expected results to determine the impact is the next step (Salviejo, Aranes & Espinosa 2014:92-99). An action plan is defined by Dumigsi and Cabrella (2019:1-10) as specific measures or a step-by-step process that should be followed to bring the formulated objectives to fruition. The steps could include;

- The process (actions) to be followed to reach those objectives.
- What methods are needed?
- Who is responsible for each step?
- The time frame for implementing the action plans.

An action plan was created by combining the proposed strategies developed from the challenges faced by registered nurses while participating in healthcare research development with the literature control. The proposed strategic intervention and action

plan seeks to assist registered nurses and healthcare institutions in making the transition from novice research registered nurses to expert registered nurses capable of developing healthcare research. To ensure that the interventions are more than just strategies, an action plan was created as part of the strategic intervention (see Table 7.2).

## 7.7 STEPS IN DEVELOPING THE STRATEGIC INTERVENTION

According to Hiligsmann et al. (2020:1), the plan for developing strategic intervention should be tailored to the needs of those for whom it is intended. The plan in this study is the formulation of a strategic intervention aimed at assisting or supporting registered nurses in the development of research. There are several steps in developing a strategic intervention, according to Bryson, Edwards, and Van Slyke (2018:317).

**Step 1: Identifying the problem.**

According to Islam (2019:10), gathering information is necessary to identify and assess the scope of any problem. Focus groups and in-depth interviews were conducted to assess why registered nurses were not participating in healthcare research in the context of HIV and AIDS in Nigeria, as well as the possible reasons. Data was collected from registered nurses working in the HIV and AIDS Unit using a qualitative approach. A thorough literature review, as well as data analysis and interpretation of the findings, provided evidence of the identified problems. The findings were supported by the registered nurses who participated in the study.

**Step 2: Assessing the level of the problem.**

A cross-sectional observational study was conducted to describe the level of participation in research activities by registered nurses working in a tertiary HIV and AIDS unit. To assess registered nurses' level of involvement in healthcare research development, a large sample of registered nurses working in HIV and AIDS units participated in focus groups and in-depth interviews. This study emphasised the importance of encouraging registered nurses to participate in research activities. Policymakers should devise strategies to encourage research among registered nurses, such as protecting and rewarding research time, specialised education, strengthened collaboration with academics, and financial support. Furthermore, hospital administrators should encourage the development of a research culture

among registered nurses to improve their research competencies and evidence-based practice.

**Step 3: Identifying Agents of Change**

Agents of change are those who have been identified as having the ability to influence change in the conditions that contribute to the problem (Brooman, Darwen & Pimor 2014:663-674). Individuals experiencing problems, in this case, registered nurses, are usually the best change agents if they are supported. According to Benner (1984:27), researchers must use critical thinking skills to change their perception of what is required at the research development level. They also need assistance in transitioning from novice research observers to expert research developers. The challenges identified and described by the participants (registered nurses) must therefore serve as the foundation for developing both the strategic interventions that would be discussed in the sections indicated in Table 7.2.

**Step 4: Develop an evidence-based strategic intervention.**

According to Hill and Jones (2019:1), when developing a strategic intervention, all stakeholders should be consulted to refine and validate a draft strategic intervention before it is finalised (Hiligsmann et al. 2020:17). It is therefore critical to include other key stakeholders, such as registered nurses, nurse managers, and institution directors. Data from 31 registered nurses, a thorough literature review, used to validate the strategic intervention all contributed to the development of the strategic intervention.

## 7.8 INTERVENTION STRATEGIES

The following strategies were derived from data analysis from focus group interviews and in-depth interviews. The strategies derived answered the study research questions.

- How do the nurses contribute to the development of healthcare research development?
- To what extent are Nigerian nurses involved in healthcare research regarding the transmission of HIV and AIDS?
- To what extent are nurses involved in eliminating the transmission of HIV and

AIDS?

- What strategies must be developed to engage nurses in Nigeria's healthcare research development on HIV and AIDS?

### 7.8.1 The Importance of Nurses in HIV AND AIDS Research

Incorporating nurses in the development of healthcare research to meet the needs of their HIV and AIDS patients is empirical. Improving knowledge, communication, and information sharing, as well as making necessary resources available, are critical in protecting healthcare personnel and HIV-infected patients (Richter et al. 2017). In Nigeria, nurses are at the forefront of HIV and AIDS care and support. They provide direct patient care and are uniquely placed to identify research opportunities.

Participation in research development in the context of HIV and AIDS transmission is critical to improving the quality of care and outcomes (Amicucci et al., 2022). Nursing research is essential to the nursing profession and is required for ongoing advances that promote optimal nursing care. Nurses are the nursing profession's future members, and for the profession to advance, nursing research must be the foundation of comprehensive, evidence-based clinical practice. This may only happen with more exposure to nursing research. As a result, future members of the nursing profession must be exposed to, appreciate, and become more involved in nursing research, and thus incorporate its findings into the delivery of optimal professional nursing practice (Tingen et al., 2009: 168).

Nursing research assists nurses in determining effective best practices and improving patient care. Because new information is constantly being discovered through research development activities, nurses must understand the value of research. Nurses can also use research to respond to changes in the healthcare environment, patient populations, and government regulations. Nursing practice is evolving as researchers make discoveries (Tingen et al., 2009: 168). Evidence-based practice necessitates the use of research findings to guide clinical decisions and care. Nurses must base their work on research findings. Nurses require research to advance their careers, stay current, and provide better patient care. Nurses with information literacy skills can use information more effectively to reach their conclusions. Nurses must use evidence-based practice. Nurses must comprehend, evaluate, and apply research in their careers (Tingen et al., 2009: 170).

### 7.8.2 Barriers to Nurses' Participation in HIV and AIDS Research

Lack of awareness, limited access to research opportunities, inadequate training, and limited resources are all barriers to Nigerian nurses participating in HIV and AIDS research (Amicucci et al., 2022). This study delves deeper into these barriers and offers solutions to overcome them. Recognizing nurses' heavy workloads, stakeholders must allocate dedicated time for research activities and ensure adequate staffing to alleviate time constraints that prevent nurses from actively participating in research (Amicucci et al., 2022). More efforts are required to better understand the barriers and facilitators to engage in HIV and AIDS care to develop and implement effective interventions that promote higher rates of utilisation across the care continuum (Williams, Amico & Konkle-Parker, 2011).

### 7.8.3 Breaking down language and cultural barriers in research

Language and cultural barriers that may limit nurses' participation in research should be addressed. These barriers can be overcome by providing translated research materials, cultural sensitivity training, and encouraging inclusive research environments (Amicucci et al., 2022). Understanding the inherent conscious and unconscious biases of those conducting research with this population, as well as how these may manifest in research studies, is also critical to producing rigorous, reliable, and valid cross-language research (Squires, Sadarangani & Jones, 2020). Individuals with language barriers present new opportunities and challenges for researchers seeking to improve the evidence base for clinical nursing practice and education globally.

To name a few, research with this population is critical for understanding health outcomes, how individuals who have moved countries access (or are prevented from accessing) health services and developing and testing effective strategies for health literacy promotion (Squires, Sadarangani & Jones, 2020). Research will also help to ensure that people with language barriers do not face discrimination in their healthcare systems, resulting in costly health disparities (Squires, Sadarangani & Jones, 2020). Combating biases against nurses in research is critical for empowering their participation. Recognizing nurses' unique contributions, challenging stereotypes, and promoting interdisciplinary collaboration can all help to address these biases and ensure nurses have equal opportunities in research (Amicucci et al., 2022).

### 7.8.4 Advocating for increased research funding for nurses

Advocacy is defined as "the act of defending or arguing in favour of something such as a cause, idea, or policy" and is thus a method of training professional nurses to be change agents and nurturing the desire to make a difference. For nearly a century, the concept of healthcare advocacy has been a part of the nursing profession. The American Nurses Association first included advocacy recommendations in its Code of Ethics in 1926.

Today, the code requires nurses to take action to influence leaders, legislators, governmental and non-governmental agencies, and all areas of health affairs that impact social determinants of health. It also discusses the critical role that nurses play in advocating for the profession as policies are being developed (Cafasso, 2023). Advocacy efforts to increase research funding specifically designated for nurses can provide the resources needed to support their participation in HIV and AIDS research. Adequate funding is essential for carrying out research studies, gaining access to training programmes, and disseminating findings (Amicucci et al., 2022). Many nursing organisations consider policy advocacy to be an essential function.

As a result, it has received little critical scrutiny or empirical investigation (Chiu et al., 2021:297). The findings lay the groundwork for future research, implying that a more focused and critically reflective body of knowledge is required to help challenge current approaches, identify areas for improvement, and offer new insights into how these institutions can best meet the needs of nurses, the public, and health systems (Chiu et al., 2021: 297). To continue to strengthen nursing policy influence globally for the betterment of our societies and healthcare systems, we must look beyond individual nurses' advocacy to ensure that we effectively mobilise the capacity of nursing organisations to have the greatest impact on policy.

### 7.8.5 Building research capacity among nurses

Investing in research training and capacity-building programmes for nurses, such as research methodology workshops and mentorship programmes, can provide nurses with the skills and knowledge they need to participate actively in research. Inadequate participation of nurses in policy-making processes will continue in the future and many countries if research capacity among nurses is not built. Nurses must understand the

significance of empowerment and participation in research and policymaking (Hajizadeh et al., 2021). This study identified key factors that will assist nurses in participating actively and productively. It also has long-term benefits in the workplace (Amicucci et al., 2022). Despite advancements in nurses' skills and knowledge, there is a gap in nurses' active participation in health policy-making processes due to research capacity among nurses. Identifying the capacity barriers and facilitators can help nurses play a more effective role in health policy formulation, implementation, and reform (Hajizadeh et al., 2021). Creating a context for nurses to communicate with policymakers about capacity building, reducing the burden of their workload, and using appropriate leadership approaches are all things that can help nurses in this regard. Furthermore, the extracted factors can be used to develop educational programmes to improve nurses' knowledge and skills (Hajizadeh et al., 2021).

### 7.8.6 Strengthening collaboration between nurses and researchers

Collaboration between nurses and researchers encourages a multidisciplinary approach to HIV and AIDS research. Nurses and researchers can collaborate to generate valuable insights and innovative solutions by leveraging their respective expertise. Workshops and training programmes for improving research skills and collaboration between nurses and researchers should be encouraged (Amicucci et al., 2022). Offering research skills development training programmes and workshops allows nurses to gain essential research competencies such as study design, data collection, analysis, and interpretation (Amicucci et al., 2022). Collaboration and partnership are critical for HIV and AIDS research success. Nurses can work with other healthcare providers, researchers, and community organisations to identify research opportunities and create effective interventions. This study discussed the significance of collaboration and partnership in HIV and AIDS research, as well as examples of successful collaborations. One of the factors influencing nurses' participation in policymaking processes was identified as the establishment of communication networks. This network is primarily concerned with interacting with internal organisational members as well as interested external publics (Hajizadeh et al., 2021).

### 7.8.7 Access to research resources and literature

Providing nurses with current research resources, journals, and databases allows them to stay up to date on the latest advances in HIV and AIDS research development. This access can be made possible through institutional subscriptions or collaborations

with academic institutions (Amicucci et al., 2022). The most frequently mentioned factor in studies was a lack of resources. A factor influencing nursing leaders' participation in health policymaking was identified as a lack of available resources (Hajizadeh et al., 2021). A lack of support from various sectors, such as the political sector, government officials, or professional organisations, impeded nurses' low involvement in policymaking (Hajizadeh et al., 2021).

### 7.8.8 Mentoring and guidance for nurses interested in research

Creating mentoring programmes in which experienced researchers guide and support novice nurses interested in research aids in closing the gap between theory and practice. Mentors can offer valuable advice, expertise, and guidance throughout the research process (Amicucci et al., 2022). According to the findings of this study, the mentoring relationship can improve organisational commitment; career optimism mediates the mentoring relationship and organisational commitment; and the protean career orientation has a moderating effect on the relationship between the mentoring relationship and career optimism. The mentoring relationship has a significant positive impact on career optimism when the protean career orientation is low, but it has no significant positive impact on career optimism when the career orientation is high (Gong, Van Swol & Wang, 2022). These findings have implications for nursing administration. Hospitals should allow nurses to exercise their abilities, improve opportunities for teamwork, clearly define the scope of nurses' work and rights, and give nurses the authority to make decisions (Gong, Van Swol & Wang, 2022).

### 7.8.9 Integration of research into the nursing education curriculum

By incorporating research into the nursing education curriculum, future nurses are equipped with fundamental research knowledge and skills. Nurses are better prepared to engage in research throughout their careers if research principles and methodologies are embedded in their education (Amicucci et al., 2022). According to the principles of continuity and sequence of education, patient safety research development should be addressed in both theoretical and practical settings across the entire nursing curriculum. Furthermore, the connection between theory and practice was established by developing a checklist that students can use in clinical settings (Ji et al. 2021:172).

The curriculum reform process has provided an opportunity to recognise the importance of including nursing faculty, students, and clinical instructors in patient safety education in improving health care quality through patient safety. This study laid the groundwork for incorporating patient safety nursing education curriculum into Nigeria's early stages. It is thought to aid in the development of patient safety competency and, ultimately, improve patient safety performance by facilitating new nurses' clinical adaptation (Ji et al. 2021:172).

### 7.8.10 Creating supportive research environments in healthcare settings

Creating research-friendly environments in healthcare settings entails providing nurses with resources, infrastructure, and institutional support to conduct research. This includes dedicated research units, research literature access, and time set aside for research activities (Hajizadeh et al., 2021). The majority of the factors influencing nurses' participation are related to management and organisational factors, which are highlighted in the included studies. The establishment of policy-making activities requires a supportive organisational structure (Hajizadeh et al., 2021).

### 7.8.11 Providing incentives and recognition for nurses' Research Involvement

Recognizing and rewarding nurses' contributions to research with incentives such as scholarships, awards, or opportunities for advancement in their careers can motivate and encourage their active participation in HIV and AIDS research (Amicucci et al., 2022). By empowering nursing staff to recognise their peers, they will feel more connected not only to one another but also to the organization's goals and values. It's a simple but effective tool for making healthcare workers feel more appreciated and supported by the people they work alongside every day. Everyone wants to know that what they are doing is important, that their daily efforts have an impact, and that their work has meaning. This is especially true in healthcare, where many employees are drawn to the industry.

### 7.8.12 The Role of Nursing Leadership in Empowering Nurses

Nursing leadership is critical in enabling Nigerian nurses to participate in HIV and AIDS research. They can offer nurses support, resources, and mentorship, as well as advocate for their participation in research (Amicucci et al., 2022). Empowerment necessitates inclusive, non-authoritarian, visionary, and emotionally intelligent

leadership (Gottlieb, Gottlieb & Bitzas, 2021:170). Leadership is essential in creating environments in which nurses feel empowered to be autonomous and exercise their agency. In doing so, nurses will experience job satisfaction, which will influence their decision to stay with their organisation and profession, as well as improve the safety and quality of care provided to patients and their families (Gottlieb, Gottlieb & Bitzas, 2021:170). Perhaps the most important factor in determining the culture and climate that will be created in a unit and within an organisation is the nature and style of nursing leadership (Gottlieb, Gottlieb & Bitzas, 2021:170).

### 7.8.13 Dissemination of Research Findings

The process of sharing research findings with stakeholders and wider audiences is referred to as dissemination. Dissemination is critical for uptake, and the use of research findings is critical for the long-term success and sustainability of practice-based research networks. The success of HIV and AIDS research is dependent on the dissemination of research findings. Nurses can help raise awareness and understanding of HIV and AIDS by disseminating research findings to other healthcare professionals, policymakers, and the general public (Amicucci et al., 2022). While there are numerous dissemination methods available, it is critical to choose the best one(s) to get the HIV and AIDS research message to the intended audience.

- Newsletters, flyers, and press releases can help spread the word about the research.
- Reports, journal articles, and websites can all be used to disseminate information about the research.
- Conference presentations and websites are two methods for publicising the research and its outcomes.

In addition to more traditional methods of dissemination, less common strategies can be beneficial. Workshops or online discussion lists, for example, can increase stakeholder engagement. This is especially important when dealing with contradictory information or information that is likely to be met with resistance. Decide when different dissemination activities will be most relevant when planning the dissemination. The most appropriate timing will be determined by the progress of the research as well as the agenda of the target audience. For example, at the start of the research, emphasise raising awareness; at the end, emphasise accomplishments and deliverables.

Consider the time commitments of the target audience and stakeholders when developing the "receivers" agenda. Recognize vacation time or bank holidays, for example, and keep in mind that it will be difficult to reach academic staff at the start of the term or during examinations. Dissemination activities, like all other aspects of research, have varying degrees of success. Build an evaluation component into dissemination activities to see if they have achieved their goals to determine if a dissemination strategy was well chosen and executed. For example, check the usage logs of a website to determine its success; evaluate training sessions by having participants complete an evaluation questionnaire; and evaluate publications based on the number of citations.

**Table 7.2 Intervention Strategies**

| **STRATEGY 1: THE IMPORTANCE OF NURSES IN HIV AND AIDS RESEARCH** | | | |
|---|---|---|---|
| **Action Statement** | **Method** | **Responsible Persons** | **Timeframe** |
| Encourage registered nurses' participation in research development. | Develop and organise in-service training for all registered nurses on the topic of importance of research development | • Registered Nurses.<br>• Matrons.<br>• Head of Department.<br>• Director of Nursing.<br>• Medical Director. | Within 60 days after the approval of the strategic intervention for implementation. |
| **STRATEGY 2: BARRIERS TO NURSES' PARTICIPATION IN HIV AND AIDS RESEARCH** | | | |
| **Action Statement** | **Method** | **Responsible Persons** | **Timeframe** |
| Ensure adequate research resources. | Provide adequate resources for research that include:<br>• Up-to-date scholarly | • Registered Nurses.<br>• Matrons.<br>• Head of | Within 60 days after the approval of the strategic intervention for implementation. |

| | | | |
|---|---|---|---|
| | • research journals.<br>• E-books.<br>• Internet research resources.<br>• References materials. | Department.<br>• Director of Nursing.<br>• Medical Director. | |
| **STRATEGY 3: BREAKING DOWN LANGUAGE AND CULTURAL BARRIERS IN RESEARCH** | | | |
| **Action Statement** | **Method** | **Responsible Persons** | **Timeframe** |
| Provide English language support through courses and workshops to assist registered to achieve competency in the English language. | Registered nurses to take English language proficiency exam to be assessed for:<br>• English composition skills.<br>• Scientific writing skills.<br>• Academic writing skills training.<br>• Research proposal writing.<br>• Research methodology training.<br>• Research ethics training.<br>• Literature search training. | • Registered Nurses.<br>• Matrons.<br>• Head of Department.<br>• Director of Nursing.<br>• Medical Director. | Within 90 days after the approval of the strategic intervention for implementation. |

| | Method | | |
|---|---|---|---|
| | • Paraphrasing training. | | |
| **STRATEGY 4: ADVOCATING FOR INCREASED RESEARCH FUNDING FOR NURSES** | | | |
| **Action Statement** | **Method** | **Responsible Persons** | **Timeframe** |
| Implement research funding support. | • Develop a strict qualifying criterion for research funding allocation.<br>• Communicate the requirements to qualify for research funding to registered nurses. | • Department of finance.<br>• Registered Nurses.<br>• Matrons.<br>• Head of Department.<br>• Director of Nursing.<br>• Medical Director. | Annually. |
| **STRATEGY 5: BUILDING RESEARCH CAPACITY AMONG NURSES** | | | |
| **Action Statement** | **Method** | **Responsible Persons** | **Timeframe** |
| Implement a research policy that includes guidelines on capacity building. | Develop a policy that includes:<br>• Importance of research in nursing.<br>• Process of research development.<br>• Funding allocation. | • Registered Nurses.<br>• Matrons.<br>• Head of Department.<br>• Director of Nursing.<br>• Medical Director. | Within 90 days after the approval of the strategic intervention for implementation. |

| | Method | | |
|---|---|---|---|
| | • Resources including pay time off duty.<br>• Where to submit the research.<br>• Research support office. | | |

**STRATEGY 6: STRENGTHENING COLLABORATION BETWEEN NURSES AND RESEARCHERS**

| Action Statement | Method | Responsible Persons | Timeframe |
|---|---|---|---|
| Implement a research development committee that will include registered nurses and researchers. | Develop a framework that includes:<br>• Time of reference.<br>• Meetings time and place.<br>• Membership. | • Registered Nurses.<br>• Matrons.<br>• Head of Department.<br>• Director of Nursing.<br>• Medical Director. | Within 60 days after the approval of the strategic intervention for implementation. |

**STRATEGY 7: ACCESS TO RESEARCH RESOURCES AND LITERATURE**

| Action Statement | Method | Responsible Persons | Timeframe |
|---|---|---|---|
| Provide resources for research development. | Provide resources that should include the following:<br>• Research training facilitators.<br>• Institutionalised guidelines on research. | • Registered Nurses.<br>• Matrons.<br>• Head of Department.<br>• Director of Nursing.<br>• Medical Director. | Within 120 days after the approval of the strategic intervention for implementation. |

| | | | |
|---|---|---|---|
| | • Policy on research development.<br>• Institution research development support services. | | |
| **STRATEGY 8: MENTORING AND GUIDANCE FOR NURSES INTERESTED IN RESEARCH** | | | |
| **Action Statement** | **Method** | **Responsible Persons** | **Timeframe** |
| Develop a formal mentoring program. | • Develop a formal program for registered nurses that includes:<br>• Defining the roles of the mentor and mentee.<br>• The responsibilities of a mentor.<br>• The responsibilities of a mentee.<br>• The duration of each mentoring cycle. | • Registered Nurses.<br>• Matrons.<br>• Head of Department.<br>• Director of Nursing.<br>• Medical Director. | Within 60 days after the approval of the strategic intervention for implementation. |

| STRATEGY 9: INTEGRATION OF RESEARCH INTO THE NURSING EDUCATION CURRICULUM | | | |
|---|---|---|---|
| **Action Statement** | **Method** | **Responsible Persons** | **Timeframe** |
| Implement selection and recruitment criteria to enhance students who are interested in research development. | Implement students' selection criteria that address:<br>• Language proficiency assessment.<br>• Methodical knowledge by reviewing previous research work.<br>• Scientific writing skills assessment. | • Nursing school educators.<br>• Ministry of Health.<br>• Nursing and Midwifery council of Nigeria. | • During the recruitment of students.<br>• During students' application or admission process. |

| STRATEGY 10: CREATING SUPPORTIVE RESEARCH ENVIRONMENTS IN HEALTHCARE SETTINGS | | | |
|---|---|---|---|
| **Action Statement** | **Method** | **Responsible Persons** | **Timeframe** |
| Provide research supervisory support. | Provide resources to support supervisors:<br>• Technical editors.<br>• Language editors.<br>• IT personnel.<br>• Research assistants. | • Registered Nurses.<br>• Matrons.<br>• Head of Department.<br>• Director of Nursing.<br>• Medical Director. | • Within 60 days after the approval of the strategic intervention for implementation.<br>• As needed. |

| STRATEGY 11: PROVIDING INCENTIVES AND RECOGNITION FOR NURSES' RESEARCH INVOLVEMENT | | | |
|---|---|---|---|
| **Action Statement** | **Method** | **Responsible Persons** | **Timeframe** |
| Develop incentives and a recognition program | • Create a method of incentives.<br>• What achievement is to be recognised?<br>• How often is the recognition?<br>• What time of incentives? | • Registered Nurses.<br>• Matrons.<br>• Head of Department.<br>• Director of Nursing.<br>• Medical Director. | Within 60 days after the approval of the strategic intervention for implementation. |

| STRATEGY 12: THE ROLE OF NURSING LEADERSHIP IN EMPOWERING NURSES | | | |
|---|---|---|---|
| **Action Statement** | **Method** | **Responsible Persons** | **Timeframe** |
| Develop peer support programs and the role of nursing leadership. | • Implement lead of research in each of the departments.<br>• Determine the mode of reference.<br>• Nominate members.<br>• Give support and time to attend | • Registered Nurses.<br>• Matrons.<br>• Head of Department.<br>• Director of Nursing.<br>• Medical Director. | Within 60 days after the approval of the strategic intervention for implementation. |

| | meetings. | | |
|---|---|---|---|
| **STRATEGY 13: DISSEMINATION OF RESEARCH FINDINGS** | | | |
| **Action Statement** | **Method** | **Responsible Persons** | **Timeframe** |
| Create and implement the method by which research findings will be distributed. | • Determine *who* your audience is.<br>• Identify *where* your audience is.<br>• Discover *how* best to reach them.<br>• Stakeholder engagement.<br>• When will dissemination activity occur? | • Registered Nurses.<br>• Matrons.<br>• Head of Department.<br>• Director of Nursing.<br>• Medical Director. | Within 120 days after the approval of the strategic intervention for implementation. |

## 7.9 VALIDATION OF DEVELOPED STRATEGIES

The validation of the strategies to enhance nurses' participation in healthcare research development in the context of HIV and AIDS transmission in Nigeria. The development of the strategies was based on the data collected through focus group interview. A thematic analysis of the data was done. The strategies were developed using the themes and subthemes that emanated from the study findings. The e-Delphi technique was chosen to be the one that was used in the validation of the strategies. The e-Delphi method is a practical and structured method of obtaining opinions on a given question from a range of participants and is usually used to gain consensus or informal respondents that constitute the e-Delphi panel (Skinner, Nelson, Chin, and Land 2015:8).

Using fitting participants for a Delphi panel requires the individual to be at the top of their field of technical knowledge, interested in a wide range of knowledge not only in

their own field but everything around it, able to see connections between national and international and present and future development, able to see connections between different fields of science, able to disregard traditional viewpoints, able to regard problems from not only known and safe angles but also unconventional ones, and interested in creating something new (Lilja, Laakso & Palomaki 2019:9).

### 7.9.1 Reaching consensus from the Delphi technique

The Delphi method is a systematic way of determining expert consensus that is useful for answering questions that are not amenable to experimental and epidemiological methods (Jorm, 2015:7). The validity of the approach is supported by the 'wisdom of crowds' research showing that groups can make good judgments under certain conditions. A consensus is a general agreement that is arrived at by most of those concerned. The process of group deliberation has many elements that are common, there should be inclusiveness, participatory, collaborative, agreement seeking, and cooperative. In this study focus group interview and collection was used and was found to be more rapid in the feedback process.

### 7.9.2 Recruitment of the Delphi participants

The participants were known from the health systems and known to be experts in HIV and AIDS management. A letter of invitation as part of the study outlining the processes requesting them to partake and consent forms was sent to them individually. Willing participants returned the consent forms acknowledging their interest.

### 7.9.3 The population of the participants for this validation

The population of validation of developed strategies were experts, competent and knowledgeable in the HIV and AIDS care and support of the HIV and AIDS patients. To enhance the rigor of the strategies the researcher included all involved in HIV and AIDS care who were registered nurses working at the HIV and AIDS unit. Rowe and Wright (2021:125) suggest using heterogeneous experts, in this study the panel considered the registered nurses involved in HIV and AIDS care.

### 7.9.4 Data collection for validation

The participants evaluated the strategies through the focus group interview and the researcher led the focus group interview. The feedback allows the participants to continue with their initial ideas or reconsider their initial ideas. A subsequent round was done, and the experts were given the results of the analysis of the responses from all the rounds undertaken and asked to provide additional recommendations. The

recommended adjustment to the strategies was made by the researcher, and finally, comprehensive, promotive, curative care and support strategies are developed to enhance nurses' participation in healthcare research development in the context of HIV and AIDS transmission in Nigeria. The principles used to refine and validate the strategies were acceptability, applicability, clarity, relevance, comprehensiveness, effectiveness, and flexibility assisted the researcher in believing that the strategies may improve the nurses' participation in healthcare research development in Nigeria.

## 7.10 RECOMMENDATIONS TO FACILITATE THE IMPLEMENTATION OF THE STRATEGIC INTERVENTION

The research study aided in the development of a strategic intervention by utilising the opinions and perspectives of registered nurses working at the HIV and AIDS unit. It is suggested that the developed strategic intervention be electronically shared with the hospital's Director of Nursing Services and Medical Director. The researcher will arrange for a presentation to share the study findings and explain how all stakeholders were involved throughout the development process. The director of Nursing and all the departmental Matrons have meetings at regular intervals where all nursing-related issues. A presentation at one of these meetings will inform all members of the nursing board about the implementation options. To ensure that registered nurses are informed, the strategic intervention should also be presented at the NANNM (National Association of Nigeria Nurses and Midwives). This ensures that the study findings are shared in the public domain, where all registered nurses can access them. The researcher must accept responsibility for disseminating the strategic intervention at other nursing conferences and in publications specifically focused on nursing education, as it may be relevant to nursing education institutions in other African and international countries with similar contexts.

## 7.11 SUMMARY

The chapter focused on the development of strategies to improve registered nurses' participation in healthcare research development in the context of HIV and AIDS transmission in Nigeria. The developed strategies intend to improve HIV and AIDS care services and provide hope to HIV and AIDS patients. Finally, Nigerian nurses play an important role in HIV and AIDS care and support. Their involvement in research is critical to improving the quality of care and outcomes for HIV and AIDS

patients. To enable Nigerian nurses to participate in research, collaboration, leadership, and ethical considerations are required. Nigerian nurses can help fight HIV and AIDS and improve the lives of those affected by the disease by implementing effective strategies. Key strategies for empowering nurses in HIV and AIDS research are summarised.

Nurses can be empowered to actively participate in HIV and AIDS research by increasing research capacity, strengthening collaboration, creating supportive environments, enhancing knowledge and skills, and overcoming barriers. Because different health policies can have a direct impact on the role of nurses, they need to be more involved in health policymaking in health care delivery systems. The failure of nurses to participate in research and policymaking has caused concern in the healthcare system. Improving nurses' ability to participate in healthcare research development and policymaking is an important aspect of the ongoing promotion of health services.

Because different healthcare research and policies can have a direct impact on the role of nurses, they need to be more involved in healthcare research development and policy making. WHO and ICN are concerned about nurses' lack of involvement in healthcare research and policymaking. Improving nurses' ability to participate in healthcare research development and policy-making activities is a critical component of the ongoing promotion of health services. Nurses' participation in healthcare research development and policy-making processes can be increased by focusing more on improving health policy education and competency as facilitators, as well as overcoming barriers such as a lack of resources and skills.

Nurses' participation in research processes can be increased by focusing more on improving health policy education and competency as facilitators, as well as overcoming barriers such as a lack of resources and skills. The researcher identified the influencing factors that support nurses' participation in research development and policymaking in this study by elaborating on ways to increase their policy-making activities. Through the development of research and policymaking activities, the findings of this study and the developed framework can be effective in empowering nurses to create active roles and better futures. Furthermore, the factors identified in this review, as well as others, can place nurses in appropriate positions and make them potential agents in changing policymaking practices. Establishing strong structures and processes to enhance nurse autonomy could provide for the

engagement, inclusion, and ownership of nurses over their clinical practice, and thereby enhance the healthcare research development in the context of prevention of HIV and AIDS transmission in Nigeria.

The study's findings and the framework developed can be effective in empowering nurses to play active roles and create a better future through the advancement of healthcare research development and policy-making activities. Nurses can use this discovery to create empowering programmes that will allow them to play more effective roles and increase their participation in healthcare research development and policymaking. Furthermore, the factors identified in this review can place nurses in appropriate positions and make them potential agents in changing the course of healthcare research development.

# CHAPTER 8

## 8.1 CONCLUSION OF THE STUDY, RECOMMENDATION AND LIMITATIONS

The importance of effectively engaging the nursing workforce regarding research productivity and formulation could be overstated. Nurses are anticipated to lead health care reform, which includes utilising research findings to guide health research since they employ the most significant number of health care employees. However, no single nurse leader was engaged in HIV and AIDS research development. Ogun State, the study's location, is one of the states with the greatest HIV and AIDS load. Nurses could only gather data and execute HIV and AIDS research. Individual, institutional, and structural barriers contribute to their lack of engagement. The survey found an overall level of indifference concerning nurses' reluctance and lack of engagement to challenge the existing status quo owing to internal worries of negative repercussions.

The silence of nurses in the face of evident inequity demonstrates their impotence. Because of power hierarchies and organisational structure, nursing leaders are banned from obtaining coveted positions, which inevitably removes them from decision-making, keeping them subordinate due to consistently waiting for invitations rather than inviting others. For example, no nurse has served as health commissioner in the last two decades. Moreover, the top-down research-creation approach emphasises their implementing function, restricting their capacity to participate during research formation. This needs the urgent mobilisation of nursing leadership to coordinate collective efforts and engage with other organisations and health care to guarantee the active involvement of nurses in knowledge generation and research formulation. Governments should push for measures that compel obligatory involvement in research made by all relevant stakeholders.

Based on the findings of this study, the burden on nurses' participation in healthcare research development on HIV and AIDS transmission was related to high job demand, insufficient job control, and inadequate social and educational support, which are the critical factors associated with an increased risk of poor research development by nurses in Nigeria. High work expectations and a lack of organisational support were also linked to an increase in the absence of nurses from study participation. Healthcare organisations' lack of compensation and acknowledgement raised emotional stress, resulting in a lack of commitment and increased absenteeism from nurses to engage in HIV and AIDS research development in Nigeria.

Poor organisational support reduces nurses' participation in healthcare research development and imposes a direct economic cost on the employer by lowering total nursing workforce productivity. Employees who have received low levels of organisational support at work are more vulnerable to poor psychological and physical health problems, such as heart disease, migraines, hypertension, irritable bowel syndrome, muscle, back, and joint pain, and duodenal ulcers, resulting in a higher risk of sickness absenteeism.

This study shows how nurses translate evidence-based information on HIV and AIDS research development into practice. Nurses indicated that several evidence-based treatments related to research development are making their way from research and policy into clinical settings; however, sizeable critical practice gaps persist. The training bridges the knowledge and application gap in research development. Innovative strategic interventions anchored on implementation science theory that integrate research, policy, and practice may aid in efficiently translating nursing research development into HIV and AIDS transmission in Nigeria. Health ministries, programme managers, clinical leaders, and policymakers might use the evidence and suggestions to enhance the content of training programmes and establish creative techniques to guarantee research translation into practice.

## 8.2 RECOMMENDATIONS OF THE STUDY

In essence, recommendations accruing from a research-based study are characteristically a reflection of the researcher’s insightful understanding and input concerning the disciplinary, methodological, and practice-related manifestation and implications of the phenomenon being investigated (Thomas, 2017: 27; Walliman, 2017: 16-17). It is also worth noting that in this section, the recommendations have been framed in respect of the research problem, the research aim, as well as the research objectives and their attendant research questions.

### 8.2.1 Recommendations for Nursing Education

Throughout the world, nursing education is the backbone of the nursing profession (Kilama, 2017: 6-7; WHO, 2015: 12). Therefore, the capacity to provide adequate education in nursing, whether in Nigeria or elsewhere, is critical to managing any illness. Throughout the study’s empirical stages, the impact of participants' responses in telling their experiences in healthcare research in the context of HIV and AIDS set

the scene or platform for improvements in educational curriculum creation and realistic environments. Through the conclusions of this research, the art of nursing education is confirmed as the distribution of the rich information accessible in inspiring understanding of theories, frameworks, models, and ideas pertinent to the discipline of nursing. Therefore, understanding HIV and AIDS pathophysiology might directly impact nursing education in Nigeria (Premji & Hatfield, 2016: 5).

Based on the above assertions, the study proposes the following recommendations regarding nursing education:

- Nursing education should integrate health research into clinical practice and relate clinical practice, teaching, research, and leadership content to broader health research implications.
- The nursing curriculum should integrate health research education as an integral component of the teaching process. To that effect, the bachelor's level exposure to health research education may impact the interest of nurses in the type of topics that transcend clinical nursing.
- Faculty and nursing schools initiate and develop sustainable and innovative platforms to promote and advance information to aspirant young minds and prospective nurses and inspire the perspective that the nursing profession is not a profession destined for females only.
- The Ministry of Health and Ministry of Education in Nigeria should strengthen their collaborative efforts with fraternal organisations such as the World Health Organization and the International Council of Nurses for funding and enhancement of the nursing curriculum in Nigeria to encourage nurses' entry into postgraduate degrees and fields with particular emphasis on treating patients living with HIV and AIDS in Nigeria as a result of this educational orchestration. In addition, such initiatives should emphatically result in changes in curriculum creation, practicum areas, and how nursing day-to-day operations are handled and managed.

### 8.2.2 Recommendations for Nursing Practice

Nursing practice is an essential aspect of patient care in the science and discipline of nursing (Poorchangizi et al., 2019: 1). In the case of this study, nursing science has substantial consequences on the hierarchy of practice, research, education, policy formulation, curriculum development, and healthcare. Nurses are the primary frontline fighters in practice, offering care and support to the high-risk group of persons most

susceptible to the HIV and AIDS pandemic. The distinctive component of nursing practice is for participants to make a significant and constructive contribution to organising and improving care for the common welfare of humanity, as mandated by their code of conduct (Poorchangizi et al., 2019: 1).

Pertinent to this study, research efforts are viewed as critical to the science of nursing as an enabler and facilitator of insightful understanding of HIV and AIDS transmission in Nigeria as a phenomenon of interest and its contribution to the healthcare delivery system based on initiatives to increase nurses' engagement in healthcare research in HIV and AIDS transmission in Nigeria. In that regard, understanding the impact of giving care to patients living with HIV and AIDS is critical for the nursing profession when engaging with this vulnerable group and fragile community in Ogun State, as well as throughout the Federal Republic of Nigeria. It is a practice obligation for nurses as frontline healthgivers to provide therapy-related help without impunity for the benefit and well-being of all patients who need primary nursing care, particularly with respect to HIV and AIDS (Kilama, 2017: 7).

Based on the above assertions, the study advocates for the following recommendations in relation to nursing practice:

- Nursing colleges and higher education institutions should enhance the culture of patient-focused care with dedicated or supervised on-going professional development with a specific focus on nursing ethics and clinical practice.
- The nursing code of conduct should integrate aspects of the law that address the litigious consequences of negligent behaviour. Such an orientation should also highlight that responsible nursing is more profound than the disciplinary actions to which the hospitals are entitled.
- Nursing ethics should entail a component of indigenous knowledge systems to strengthen nurse-patient relationships and experiences from a multicultural perspective as a contribution towards the eradication of HIV and AIDS through evidence-based therapy and skills.
- That a system of financial, non-financial, and merit-based incentives should be continuously implemented for nurses in HIV and AIDS and other high-risk areas of healthcare.
- That a country-wide system of community-based nursing should be implemented as a matter of urgency to bring HIV and AIDS-related services

nearer to the people with the assistance of locally trained nurses in primary healthcare fundamentals; and

- Traditional leaders and healers should be incorporated as part of community-based healthcare initiatives to enhance their cooperation in understanding HIV and AIDS and addressing issues of myths, stigmatisation, and taboos surrounding this disease.

### 8.2.3 Recommendations for Healthcare and Public Policy

Healthcare and public policy premise largely on resolutions, resources, processes, and arrangements implemented by authorities in all government spheres to attain particular healthcare objectives within a society (Bedard, 2017: 444). Nursing has the strategic potential to drive health policy concerns via public policies adopted by governmental authorities to benefit patients placed in the care of participants. In the case of this study, healthcare policy is a social policy related to policy pronouncements about the health and healthcare of individuals and communities affected by HIV and AIDS. The formulation and implementation of health policies, initiatives, and activities linked to HIV and AIDS and other infectious illnesses of public concern are critical in the treatment and outcomes of the disease (IOM, 2010: 7; Sturke et al., 2014: 4). Therefore, explicit health and public policy may create a future vision, which helps set objectives and points of reference for the short-, medium-, and long-term health and public policy concerns, initiatives, and directives.

Based on the above-stated assertions, the following recommendations are proposed in relation to healthcare and public policy:

- Multiple stakeholder platforms or forums of the Ministries of Health and Education, traditional leaders, community-based and non-governmental organisations representing the youth, as well as faith-based organisations should be regularly convened for collaborative healthcare and public policy formulation and implementation.
- Nurse educators and collective bargaining councils or organisations representing nurses should not be excluded from official or government-sponsored healthcare and public policy formulation platforms.
- That HIV and AIDS awareness and education campaigns should constitute an integrated component of the official school health education policy with examinable credits for all learners in high school; and

- Protracted or dedicated exchange programmes should be established between nursing colleges and higher learning institutions to promote the involvement of trainee and qualified nurses in healthcare and public policy studies, including its practical or empirical application in healthcare contexts.

### 8.2.4 Recommendations for Nurses' Healthcare Research Development

Attempts to eliminate the HIV and AIDS disease burden without the professional assistance and involvement of nurses would be difficult, considering that nurses are well-versed, and their role in reducing the illness burden associated with HIV and AIDS is extensively recognised (Akunja et al., 2022: 3). However, the HIV and AIDS burden will continue to rise unless they contribute and utilise research data to influence research. Therefore, all stakeholders, including nurses, must participate individually to reform the healthcare system (ICAP, 2022a: 4).

The implementation of scientifically established therapies is required to attain the desired outcomes for HIV and AIDS (IOM, 2010:5; Sturke et al., 2014: 4). Notwithstanding nurses' widespread lack of enthusiasm for healthcare research development, motivating them to participate in HIV and AIDS research and research formulation to prevent HIV and AIDS transmission becomes a panacea in the context of this study. Transformational nurses may improve their critical thinking skills, encourage participation in research and research-making, and decrease interpersonal, institutional, and systemic barriers to their involvement (Contino, 2004: 5; Gifford et al., 2007: 5).

Based on the assertions above, the study proposes the following recommendations in respect of nurses' healthcare research development, as well as attaining both global and national objectives for HIV and AIDS elimination:

- Strong leadership in the nursing practice should be supported to break down limitations and enable the engagement of nurses in research and research formulation. Leadership in the nursing practice (beginning with the senior nursing officer) have clinical abilities relevant to specific functions and tasks but lacks research and research governance. Training may foster leadership abilities, and organisations should spend resources to ensure nurses gain the skills required to meet healthcare objectives.
- A fund for nursing research should be created to assist research in which

nurses are both the leaders and beneficiaries.

- The government should promote research and evidence-based practice culture in healthcare enterprises.
- International training options for research and research-creation should be accessible to nurses to build competence in these areas.
- For professional nurses pursuing a university education, strict entry rules (requiring experienced nurses to acquire five credits in English, Mathematics, Physics, Chemistry, and Biology) should be reduced.
- Universities should add research courses into the curriculum of their first-year nursing programmes.
- More experienced researchers must mentor young researchers. In addition, retired nurses should assist younger nurses in navigating the research arena.
- Nursing organisations should be encouraged to employ collective advocacy.
- That decision-making based on evidence should be promoted as the standard in nursing practice.
- Nurses should be aware of the many sources of research funds, including those available from local and worldwide research funding organisations.
- Nursing literature and publications by nurses should fundamentally represent the perspective of evidence-based treatments recommended as models for specific populations, to enhance understanding of any phenomena relevant to nursing and its contribution to the healthcare delivery system based on HIV and AIDS care; and
- Nurse educators should actively engage in health research formulation, offer nurses exposure, and serve as role models and mentors in this practice area.

### 8.2.5 Recommendations for Future Study

More research studies are needed to understand and understand participants' completely lived experiences and those who offer care to patients living with HIV and AIDS in Nigeria and across globalisation. The vacuum in research studies addressing the experience of registered nurses caring for patients living with HIV and AIDS in Nigeria is enormous, and the examination of this study is well supported. This work may be added to the growing body of information about how nurses engaged in HIV and AIDS research development face complicated challenges. Future research should

look at nurse personality qualities, coping mechanisms, and social, emotional, and physical support in HIV and AIDS care. They investigated the factors that lead to the poor implementation of support programmes for nurses in developing HIV and AIDS research and the creation of wellness monitoring tools in Nigeria.

### 8.3 LIMITATIONS OF THE STUDY

Although the results of this study have significantly added to the national and international literature concerning nursing research development and productivity, they may not be generalisable outside the environment of the study, due to the small sample size and its confinement only to healthcare in Ogun State. Furthermore, this research excluded participants from Nigeria's nursing and midwifery sector, which oversees the enactment of regulations into State legislation. Nonetheless, it has offered valuable insights into nurses' research productivity and development involvement. Furthermore, the research study has highlighted some constraints that prevent their participation in spreading HIV and AIDS. On the other hand, this study focused on nurses' involvement in healthcare research and formulation of HIV and AIDS transmission in Nigeria.

This study examines the engagement of nurses in health care research-creation in Nigeria's HIV and AIDS transmission and management. The study does not focus on other nursing-related issues and responsibilities, such as ethics, TB treatment, or prevention. Furthermore, the study's possible shortcoming is that it does not address other research elements of nursing practice. However, safety procedures will be used to reduce the potential influence of the constraint on the study's richness. In addition, the study was carried out at one Ogun State, Nigeria, hospital. As a result, the results cannot be applied to the remainder of the hospitals. Therefore, a more extended examination of a representative hospital sample in the state would be required for generalisation.

Though this study contributed significantly to the national and international literature on nursing research productivity and policy development, the findings may not be generalizable beyond the study setting. This is due to the study's qualitative nature, small sample size, and focus on healthcare leaders in Nigeria. This study excluded nursing management participants who were in charge of developing hospital-level nursing policies and standards of practice. Because some participants worked night shifts and were unable to attend group meetings, their input into each research process was limited and their level of engagement was not on par with others. Given that nursing is primarily a female occupation, using a gender lens in this study could

have provided additional insights into the study findings. As a result, the study's lack of gender-based analysis is regarded as a limitation. Nevertheless, it has provided rich insights into nurses' involvement in research productivity, their participation in policy development, strategies to enhance their participation, and has provided some barriers that hinder their participation in the context of HIV and AIDS transmission in Nigeria.

## 8.4 SUMMARY

The study has yielded flexible acceptable and compressive strategies to improve the participation of registered nurses in healthcare research development in the context of HIV and AIDS transmission in Nigeria. The researcher has recommendations to improve the research development and support strategies to further enhance the effectiveness of the research services. In all the phases of the study, the researcher has kept to the rules and ethical standards of the research. The need for registered nurses' participation in research development cannot be underestimated. The study highlights the challenges and strengths of registered nurses during the research development. The suggested strategic intervention presented in this study can provide a starting point for improving the throughput rates of registered nurses.

This study provided a snapshot of current research activities among registered nurses working in HIV and AIDS units in a Nigerian hospital. Nonetheless, the hospital is a research institute, and registered nurses' participation in research was still low. To improve research participation and scientific output in the hospital, new interventions must be implemented. To begin, research collaboration among various health professions should be encouraged. Furthermore, collaboration between researchers and clinical practitioners, particularly registered nurses, must be strengthened. Furthermore, to increase research capacity, registered nurses should be encouraged to form national and international research networks. Finally, policymakers should devise strategies to encourage the development of high-quality nursing research, such as protected rewarded time for researchers.

## REFERENCES


Abood, S. 2017. Influencing healthcare in the legislative arena. *Journal of Issues in Nursing, 12* (1):40-49.

Abubakar, I., Dalglish, S., Angell, B., Sanuade, O., Abimbola, S., Adamu, A., Adetifa, I., Colbourn, T., Ogunlesi, A., Onwujekwe, O., Owoaje, E., Okeke, I., Adeyemo, A., Aliyu, G., Aliyu, M., Aliyu, S., Ameh, E., Archibong, B., Ezeh, A., Gadanya, M., Ihekweazu, C., Ihekweazu, V., Iliyasu, Z., Kwaku Chiroma, A., Mabayoje, D., Nasir Sambo, M., Obaro, S., Yinka-Ogunleye, A., Okonofua, F., Oni, T., Onyimadu, O., Pate, M., Salako, B., Shuaib, F., Tsiga-Ahmed, F. & Zanna, F. 2022. The Lancet Nigeria Commission: Investing in health and the future of the nation. *The Lancet, 399*(10330):1155-1200.

Adeoye, A. 2019. *Compensation management and employees' motivation in the insurance sector: Evidence from Nigeria*. Facta Universitatis, Series: Economics and Organization, p.031.

Adger, W.N. 2005. Social vulnerability to climate change and extremes in coastal Vietnam. *World Development 27*: 249-269.

Aehwa, L. & Myungsook, C. 2020. Analysis of the research trend on the college students' key competencies and diagnosis tools. *Journal of Educational Technology 30*(4):561-588.

Ager, A. & Zarowsky, C. 2018. Balancing the personal, local, institutional, and global: Multiple case studies and multidimensional scaling analysis of African experiences in addressing complexity and political economy in health research capacity strengthening. *Health Research Policy and Systems, 13* (5). https://doi.org/10.1186/1478-4505-13-5.

AHA. 2016. Correction to: 2020 ACC/AHA guideline on the management of patients with valvular heart disease: Executive summary: *A report of the American college of cardiology/American heart association task force on clinical practice guidelines.* 143(5).

Aiken, L.H. 2018. Evidence-based nurse staffing: ICN's new position statement. *International Nursing Review,* (65): 469-471.

Akunja, E., Kaseje, O., Obago, I. & Ochieng, M. 2022. Involvement of hub nurses in HIV policy development: Case study of Nyanza Province, Kenya. *Research on Humanities and Social Sciences, 2* (6): 124-134. Retrieved from http://www.iiste.org/Journals/index.php/RHSS/article/view/2387/2386

Alase, A. 2017. The interpretative phenomenological analysis (IPA): A guide to a good qualitative research approach. *International Journal of Education and Literacy Studies,* 5(2): 9.

Alhojailan, M.L. 2022. Thematic analysis: A critical review of its process and evaluation. *West East Journal of Social Sciences.* 1(1).

Allen Jensen, E. & Laurie, A. 2016. *Doing real research.* Los Angeles: SAGE.

Allen, T., Eby, L., Poteet, M., Lentz, E. & Lima, L. 2004. Career benefits associated with mentoring for protégés: A meta-analysis. *Journal of Applied Psychology,* 89 (1):127-136. DOI: 10.1037/0021-9010.89.1.127.

Altuntu, K., Anık, Y. & Ege, E. 2018. Traditional practices of mothers in the postpartum period: Evidence from Turkey. *African Journal of Reproductive Health, 22*(1): 94-102.

Alvi, M.H. 2016. *A manual for selecting sampling techniques in research*. University of Karachi, Iqra University.

American Association of Colleges of Nursing (AACN). 2018. Leading initiatives: Nursing research. Retrieved from: http://www.aacn.nche.edu/publications/position/nursing-research

Amicucci, M., Dall'Oglio, I., Biagioli, V., Gawronski, O.,Piga, S., Ricci, R., Angelaccio, A., Elia, D., Fiorito, M. E., Marotta, L., Raponi, M & Tiozzo, E. 2022. Participation of nurses and allied health professionals in research activities: a survey in an academic tertiary pediatric hospital. *BMC Nurs* (21)1-12. https://doi.org/10.1186/s12912-022-00922-1

Anderson, J. & Poole, M. 2014. Assignment & thesis writing. South African edition. Cape Town: Juta.

Anon. 2021. Pain assessment and management strategies for elderly patients. *Home Healthcare Nurse 32*(5): 281-287.

Arabi, A., Rafii, F., Cheraghi, M.A. & Ghiyasvandian, S. 2014. Nurses' policy influence: A concept analysis. *Iranian Journal of Nursing and Midwifery Research, 19*(3): 315–322.

Arinze-Onyia, S.U., Modebe, I. & Aguwa, E.N. 2016. Disclosure of HIV status by persons living with HIV/aids in their workplaces and post disclosure consequences on the patients, *Journal of Experimental Research, 3* (1): 32-40.

Ariyo, O., Ozodiegwu, I.D. & Doctor, H.V. 2017. The influence of the social and cultural environment on maternal mortality in Nigeria: Evidence from the 2013 demographic and health survey. *PLos ONE, 12*(12): 1-19. https://doi.org/10.1371/journal.pone.0190285

Armstrong, E. & Kaul, R. 2021. Beyond bacterial vaginosis: Vaginal lactobacilli and HIV risk. *Microbiome*, 9(1).

Asuquo, E., Adejumo, P., Etowa, J. & Adejumo, A. 2018. Fear of HIV susceptibility influencing burden of care among nurses in South-East Nigeria, *World Journal of AIDS, 3* (3): 231-238. https://doi.org/10.4236/wja.2013.33031.

Asuquo, E., Etowa, J., John, M., Ndiok, A., Sampson-Akpan, P. & Edet, O. 2019. Assessing nurses' capacity for health research and policy engagement in Nigeria. *Journal of Applied Medical Sciences, 2* (4): 35-51.

Avert. 2017. *HIV and AIDS in sub-Saharan Africa: Regional overview*. Retrieved from http://www.avert.org/hiv-aids-sub-saharan-africa.htm

Avert. 2022a. *Global HIV and AIDS statistics*. Retrieved from: https://www.avert.org/global-hiv-and-aids-statistics (Retrieved on 24 January 2022).

Avert. 2022b. *HIV and AIDS in Nigeria.* Retrieved from: https://www.avert.org/professionals/hiv-around-world/sub-saharan-africa/nigeria (Retrieved on 24 January 2022).

Avert. 2022c. *History of HIV and AIDS overview*. Retrieved from: https://www.avert.org/professionals/history-hiv-aids/overview (Retrieved on 5 February 2022).

Awofala, A.A. & Ogundele, O.E. 2016. Review: HIV epidemiology in Nigeria, *Saudi Journal of Biological Sciences,* Retrieved from: http://www.sciencedirect.com/science/article/pii/S1319562X16300110

Awofala, A.A. & Ogundele, O.E. 2018. Review: HIV epidemiology in Nigeria, *Saudi Journal of Biological Sciences,* Retrieved from: http://www.sciencedirect.com/science/article/pii/S1319562X16300110

Babbie, E. & Mouton, J. 2020. *The practice of social research.* 10th ed, Republic of South Africa. Cape Town: Oxford University Press, Southern Africa.

Bakken, S., Lantigua, R.A., Busacca, L.V. & Bigger, J.T. 2019. Barriers, enablers, and incentives for research participation: A report from the ambulatory care research network (ACRN). *Journal of the American Board of Family Medicine*: *JABFM, 22*(4): 436-445. https://doi.org/10.3122/jabfm.2009.04.090017

Baral, S., Logie, C.H., Grosso, A., Wirtz, A.L. & Beyrer, C. 2013. Modified social ecological model: A tool to guide the assessment of the risks and risk contexts of HIV epidemics. *BMC Public Health, 13*(1): 482. https://doi.org//10.1186/1471-2458-13-482

Barclay, L. 2010. *Nurses should play greater role in health policy planning, management. Medscape: multispecialty*. Retrieved from http://www.medscape.com/viewarticle/716344#vp_2

Barrett, S. 2010. Competitive Intelligence: Significance in Higher Education. *World Futures Review, 2*(4): 26-30.

Bartex, S. & Jack, S. 2018. Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report, 13* (4): 544-559. Retrieved from http://www.nova.edu/sss/QR/QR 13-4/baster.pdf

Bashorun, A., Nguku, P., Kawu, I., Ngige, E., Ogundiran, A., Sabitu, K., Nasidi, A. & Nsubuga, P. 2014. A description of HIV prevalence trends in Nigeria from 2001 to 2010: 'What is the progress, where is the problem?', *The Pan African Medical Journal, 18* (1): 3.

Becker, S., Bryman, A. & Ferguson, H. 2012. *Understanding research for social policy and social work: Themes, methods and approaches*. Bristol: The Policy Press.

Bedard, P. 2017. Understanding evidence and behavioural responses: Future directions in evidence-based policy-making. *Canadian Public Administration, 60*(3): 443-446.

Benner, P., Tanner, C. & Chesla, C. 2009. *Expertise in nursing practice: Caring, clinical judgment & ethics* (2nd ed.). New York: Springer.

Benner, P. 1984. From novice to expert, excellence and power in clinical nursing practice. Menlo Park, CA: Addison-Wesley Publishing Company.

Bennett, W. 2018. The disinformation order: Disruptive communication and the decline of democratic institutions. *European Journal of Communication, 33*(2): 122-139.

Benton, D. 2012. Advocating globally to shape policy and strengthen nursing's influence. *Journal of Issues in Nursing*. DOI:10.3912/OJIN.Vol17No01Man05

Birkhoff, S.D., Nair, J.M., Monturo, C., Molyneaux, D., Rochman, M.F., Sawyer, A.M & Moriarty H. 2020. Increasing nursing research capacity: The roles and contributions of nurse scientists within healthcare systems in the Greater Philadelphia region Applied Nursing Research, (55):1-12. https://doi.org/10.1016/j.apnr.2020.151288

Boateng, G.O., Nellands, T.B., Frongillo, E.A., Melgar-Quiñonez, H.R. & Young, S.L. 2018. Best practices for developing and validating scales for health, social and behavioural research: A primer. *Frontiers in Public Health, 6*(149): 1-18. https://doi.org/10.3389/fpubh.2018.00149.

Boshoff, C. & Gray, B. 2004. The relationships between service quality, customer satisfaction and buying intentions in the private hospital industry. *South African Journal of Business Management. 35*(4): 27-37. http://doi.org/10.4102/sajbm.v35i4.66 .

Boyce, C. & Neale, P. 2018. *Conducting in-depth Interview: A guide for designing and conducting in-depth interviews for evaluation input*. Pathfinder international tool series, monitoring and evaluation-2. Retrieved from: http://www.pathfind.org/site/DocServer/m_e_tool_series_indepth_interviews.pdf?docID=6301

Braun, V. & Clarke, V. 2017. Using thematic analysis in psychology. *Qualitative Research in Psychology,* (3): 77-101.

Brink, H., Van der Walt, C. & Van Rensburg, G. 2018. *Fundamentals of research methodology for healthcare professionals*. 4th edition. Cape Town: Juta.

Brooman, S, Darwen, S & Pimor, A. 2014. The student voice in higher education curriculum design: Is there value in listening? Innovation in Education and Teaching International 52(6):663-674.

Bryson, J. M, Edwards, L. H & Van Slyke, D. M. 2018. Getting strategic about strategic planning research. Public Management Review 20(3):317-339.

Burnard, P. 2021. A method of analysing interview transcripts in qualitative research. *Nurse Education Today, 11*(6): 461-466.

Burns, N. & Grove K. S. 2009. *The practice of nursing research: Appraisal, synthesis, and generation of evidence*. St. Louis: Saunders Elsevier.

Buse, K., Mays, N. & Walt, G. 2012. *Making health polic*y (2nd ed.). New York: McGraw Hill.

Byrd, M.E., Costello, J., Gremel, K., Schwager, J., Blanchette, L. & Malloy, T.E. 2012. Political astuteness of baccalaureate nursing students following an active learning experience in health policy. *Public Health Nursing, 29* (5): 433-443. https://doi.org/10.1111/j.1525-1446.2012.01032

Byrne, A., Baldwin, A. & Harvey, C. 2020. Whose centre is it anyway? Defining person-centred care in nursing: An integrative review. *PLOS ONE, 15*(3): e0229923

Cafasso, M. 2023. Nurses and Health Policy: Why we need to be involved. Retrieved from https://www.uc.edu/news/articles/2023/02/nurses-as-advocates-4-big-health-policy-issues-you-can-impact-now.html

Campbell, O. & Okuwa, O. 2019. Changing demographics and human capital development: Implications for economic growth in Nigeria*. Archives of Business Research,* 4(2).

Campion, E. 2018. Treating millions for HIV: The adherence clubs of Khayelitsha. *New England Journal of Medicine,* (372): 301-303

Carnegie, E. & Kiger, A. 2009. Being and doing politics: An outdated model or 21st century reality? *Journal of Advanced Nursing, 65* (9): 1976-1984. https://doi.org/10.1111/j.1365-2648.2009.05084.

Carnevale, A. 2018. An item analysis of the comfort scale in a paediatric intensive care unit. *Pediatr Crit Care Med. Apr;3*(2): 177-180.

Cassell, C. 2015. Conducting research interviews for business and management students. London: Sage.

Catallo, C., Spalding, K. & Haghiri-Vijeh, R. 2014. Nursing professional organizations: What are they doing to engage nurses in health policy? *Sage Open Journal*. DOI: 10.1177/2158244014560534.

Celum, C. & Baeten, J. 2017. Antiretroviral-based HIV-1 prevention: Antiretroviral treatment and pre-exposure prophylaxis. *Antiviral Therapy, 17*(8): 1483-1493.

Chaghari, M., Saffari, M., Ebadi, A. & Ameryoun, A. 2017. Empowering education: A new model for in-service training of nursing staff. *Journal of Advances in Medical Education & Professionalism 5*(1): 26-32.

Chambers, R. 2018. PRA, PLA and pluralism: Practice and theory. In Peter Reason & Hilary Bradbury (Eds.), The Sage handbook of action research. *Participative Inquiry and Practice* (2): 297-318. London: Sage.

Chamla, D., Luo, C. & Idele, P. 2018. Children, HIV, emergencies and sustainable development goals: Roadblocks ahead and possible solutions. *Journal of the International AIDS Society*, 21: e25046.

Chatchumni, M., Namvongprom, A., Eriksson, H. & Mazaheri, M. 2019. Exploring the different management structures in nurses responses and treating of patients' postoperative pain: A qualitative triangulation study. *Electronic Physician, 11*(2): 7536-7543. https://doi.org/10.19082/7536

Chiu, P., Cummings, G. G., Thorne, S & Schick-Makaroff, K. 2021. Policy Advocacy and Nursing Organizations: A Scoping Review. Policy, Politics, & Nursing Practice;22(4):276-296. doi:10.1177/15271544211050611

Clark, T., Foster, L & Bryman, A. 2018. *How to do your social research project or dissertation.* Oxford, United Kingdom: Oxford University Press.

Cliff, A. & Hagget, P. 1998. *Atlas of disease distributions: Analytical approaches to epidemiological data*. MA: Blackwell.

Cliff, A. & Hagget, P. 2006. A Swash-Backwash model of the single epidemic wave. *Journal of Geographic Systems, 8*(3): 227-525.

Comer, E. & Rao, S. 2019. Transforming social group work learning into competencies for interprofessional teams. *Social Work with Groups 39*(1): 62-75.

Conmy, A. 2018. South African healthcare system analysis, *Public Health Review*, 1(1). Retrieved from: https://pubs.lib.umn.edu/index.php/phr/article/view/1568 .

Contino, D. 2004. Leadership competencies: knowledge, skills, and aptitudes nurses need to lead organizations effectively. *Crit Care Nurse, 24(*3): 52-64

Cook, M. 2008. The renaissance of clinical leadership. *International Nursing Review, 48* (1): 38-46.

Cornwall, A. & Jewkes, R. 2018. What is participatory research? *Social Science Medicine, 41*(12): 1667-1676.

Court, J. 2006. *Bridging research and policy on HIV/AIDS in developing countries. London: Overseas development institute*. Retrieved from http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/3689.pdf

Craddock, S. 2000. Disease, social identity, and risk: Rethinking the geography of AIDS. *Trans Inst Br Geogr 25*: 153-168.

Creswell, J.W. 2018. *Research design: Qualitative, quantitative, and mixed methods approaches.* 4th edition. Thousand Oaks: SAGE Publications.

Cristian, S. 2010. Health systems and the influence of political ideologies. *Management in Health* 14 (2): 4-6. Retrieved from http://journal.managementinhealth.com/index.php/rms/article/view/103

Dagne, A. & Ayalew, M. 2020. Factors affecting research utilisation of nurses and midwives working in North Gondar and West Gojjam Zone public hospitals, Ethiopia: A cross-sectional study. *BMJ Open, 10*(11): e039586.

Dagne, A. & Tebeje, H. 2021. Research utilisation in clinical practice: the experience of nurses and midwives working in public hospitals. *Reproductive Health, 18*(1).

Das, M., Chu, P., Santos, G., Scheer, S., Vittinghoff, E., McFarland, W. & Colfax, G. 2020. Reductions accompany decreases in community viral load in new HIV infections in San Francisco. *PLoS ONE, 5*(6): 11068.

Davies, M.B & Hughes, N. 2018. *Doing a successful research project: Research at grass roots: For social sciences and human services professions*. Pretoria: Van Schaik Publishers.

Davis, J. 2012. A critical view of global governance. *Swiss Political Science Review, 18*(2): 272-286.

Davis, Sheila. 2019. *Why nurses are the unsung heroes of global health. The Huffington Post*. Retrieved from: http://www.huffingtonpost.com/sheila-davis-dnp-anpbc-faan/international-nurses-week_b_1499802.html

De Jager, J.W.D. & Du Plooy, T.D. 2007. Measuring tangibility and assurance as determinants of service quality for public healthcare in South Africa. *Service Quality Assurance and Tangibility for Public Healthcare in South Africa, 7*(1): 96-111.

De Vos, A., Strydom, H., Fouche, C. & Delport, C. 2019. *Research at grass roots: For social sciences and human services professions*. Pretoria: Van Schaik Publishers.

Dearing, J. & Cox, J. 2018. Diffusion of innovations theory, principles, and practice. *Health Affairs, 37*(2): 183-190.

Denzin, N.K. & Lincoln, Y.S. 2017. *The Sage handbook of qualitative researc*h (3rd Ed.). Thousand Oaks, CA: Sage.

Department of Health, South Africa. 2013. *National strategic plan on nurse education, training and practice* 2012/13-2016/17. Retrieved from: http://www.sanc.co.za/archive/archive2013/linked_files/Strategic_Plan_for_Nurse_Education_Training_and_Practice.pdf

Deschaine, J. & Schaffe, M. 2003. Strengthening the role of public health nurse leaders in policy development. *Policy, Politics, & Nursing Practice, 4* (4): 266-274. https://doi.org/10.1177/1527154403258308.

DiCenso, A., Guyatt, G. & Ciliska, D. 2005. *Evidence-based nursing: A guide to clinical 95 practice*. St. Louis, MO: Elsevier Mosby.

Dickson, G. 2020. Participatory action research; theory and practice, In M Stewart (eds.) Community nursing: Promoting Canadians health: Toronto, On: *WB Saunders:* (2): 542-563.

Ditlopo, P., Blaauw, D., Penn-Kekana, L. & Rispel, L. 2014. Transforming nursing in South Africa: Contestations and complexities of nurses' participation in policy-making in South Africa. *Glob Health Action 2014* (7): 25327 http://dx.doi.org/10.3402/gha.v7.25327

Doherty, J., Logan, M., Tasdemir, O. & Freeman, M. 2009. Ensheathing glia function as phagocytes in the adult drosophila brain. *Journal of Neuroscience, 29(*15): 4768-4781.

Dohrn, J., Nzama, B. & Murrman, M. 2009. The impact of HIV scale-up on the role of nurses in South Africa: Time for a new approach. *Journal of Acquired Immune Deficiency Syndromes (*52): 27-29. https://doi.org/10.1097/QAI.0b013e3181bbc9e4.

Dollinger, L. 2006. 'A grounded theory study of nurse advocacy in health policy'. (Unpublished doctoral dissertation). New York: SUNY.

Donabedian, A. 1988. The quality of care: How can it be assessed? *Journal of American Medical Association*, (260): 1743-1748.

Donabedian, A. 1992. The role of outcomes in quality assessment and assurance. *Quality Review Bulletin,* (18): 356-360.

Donabedian, A. 2005. Evaluating the quality of medical care. *The Milbank Quarterly, 83*(4): 691–729. https://doi.org/10.1111/j.1468-0009.2005.00397.x

Dowswell, G., Dowswell, T. & Young, J. 2010. Adjusting stroke patients' poor position: An observational study. *Journal of Advanced Nursing, 32*(2): 286-291.

Du Plessis, E. 2007. 'A strategy to promote nurses' health research contributions in South Africa'. (Unpublished doctoral dissertation). Northwest University, Potchefstroom.

Du Plessis, E. & Human, S.P. 2017. Opinions on a strategy to promote nurses' health research contributions in South Africa. *Health SA Gesondheid, 14* (4): 25-35. https://doi.org/10.4102/hsag. v12i4.269.

Duke, D. C & Denicolo, P. M. 2017. What supervisors and universities can do to enhance doctoral student experience (and how they can help themselves). FEMS Microbiology Letters 364(9):1-22.

Dumigsi, M. P & Cabrella, J. 2019. Effectiveness of strategic intervention material in mathematics as remediation for Grade 9 students in solving problems involving quadratic functions. Asian Journal of Education and Social Studies 5(1):1-10.

Duncombe, C., Ball, A., Passarelli, C. & Hirnschal, G. 2018. Treatment 2.0: Catalyzing the next phase of treatment, care and support. *Current Opinion on HIV/AIDS*, 8 (1): 4-11. https://doi.org/10.1097/COH.0b013e32835ba7ff.

Dwork, C. 2018. The Future of the journal of privacy and confidentiality. *Journal of Privacy and Confidentiality*, 8(1).

Earickson, R. & Meade, M. 2010. *Medical geography*. New York: Guilford Press.

Edwards, H., Chapman, H. & Davis, L. 2018. Utilization of research evidence by nurses. *Nursing and Health Sciences, 4* (3): 89-95.

Edwards, N. & Roelofs, S. 2007. Strengthening nurses' capacity in HIV policy development in sub-Saharan Africa and the Caribbean: An international programme of research and capacity building. *Canadian Journal of Nursing Research, 39* (3): 187-189.

Efron, S.E. & Ravid, R. 2019. *Writing literature review. A practical guide.* New York: Guilford Publication Incl.

El-Jardali, F. & Lavis, J. 2018. Use of health systems and policy research evidence in the health policymaking in eastern Mediterranean countries: Views and practices of researchers. *Implementation Science, 7*(1). https://doi.org/10.1186/1748-5908-7-2

Ellenfsen, B. & Hamilton, G. 2000. Empowered nurses? Nurses in Norway and the USA compared. *International Nursing Review, 47* (2): 106-120.

Ellis, P. 2016. *Evidence based practice in nursing*. 3rd ed. London: SAGE publications Ltd

El-Sadr, W., Holmes, C., Mugyenyi, P., Thirumurthy, H., Ellerbrock, T., Ferris. & Whiteside, A. 2018. Scale-up of HIV treatment through PEPFAR: A historic public

health achievement. *Journal of Acquired Immune Deficiency Syndromes, 60* (3): 96-104. https://doi.org/10.1097/QA1.0b013e31825eb276

Emden, C. & Sandelowski M. 2019. The good, the bad and the relative, part two: Goodness and the criterion problem in qualitative research. *International Journal of Nursing Practice,* (5): 2-7

Engelman, A., Case, B., Meeks, L. & Fetters, M. 2019. Conducting health policy analysis in primary care research: turning clinical ideas into action. *Family Medicine and Community Health, 7*(2): e000076.

Etowa, J. 2014. Painting the landscape: Is the invisibility of Nigerian nurses in research and policy development arenas ailing healthcare in the country? *Journal of Pregnancy and Child Health, 3* (1). https://doi.org/10.4172/jpch.1000e105.

Fajemilehin, B.R. 2019. Evidence-based practice, networking and quality care*. Nigeria Journal of Nursing, 1* (2): 10-25.

Federal Government of Nigeria. 2010. *United Nations General Assembly Special Session (UNGASS) Country Report, Nigeria*. Retrieved from: http://data.unaids.org/pub/Report/2010/nigeria_2010_country_progress_report_en.pdf

Federal Ministry of Health Nigeria. 2016. *National Guidelines for HIV Prevention Treatment and Care.* https://www.prepwatch.org/wp-content/uploads/2017/08/nigeria_national_guidelines_2016.pdf .

Federal Republic of Nigeria. 2018. *Global AIDS response: Country progress report*. Abuja, Nigeria: NACA.

Fereday, J. & Muir-Cochrane, E. 2018. Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods, 5* (1). Retrieved from https://www.ualberta.ca/~iiqm/backissues/5_1/PDF/FEREDAY.PDF

Ferguson, J. 2001. SSRI antidepressant medications. The primary care companion. *Journal of Clinical Psychiatry, 03*(01): 22-27.

Fernandes, B. & Mariano. A. 2007. Translating research into policy: lessons learned from eclampsia treatment and malaria control in three southern African countries. *Health Research Policy and Systems*. 7: 31.

Flick, U. 2020. Introducing research methodology. 3rd edn. London: Sage.

Flores, W. & Gómez-Sánchez, I. 2019. Experiences of participatory action research in building people centred health systems and approaches to universal coverage: Report of the sessions at the global symposium on health systems research. *Rev Salud Pública, 12*(1): 138–150. Spanish.

FMOH. 2022. 2019 Annual Health *Sector Report Basic Healthcare Provision Fund 2020(Guidelines)*. [online] Retrieved from: https://www.health.gov.ng/ (Retrieved on 14 August 2022).

Fontana, A. & Frey, J. 2018. The interview: From neutral stance to political involvement. In M. K. Denzin & Y. S. Lincoln, Y.S. (Eds.), *The Sage handbook of qualitative research* 3rd ed. pp 695-728. Thousand Oakes CA: Sage Publications.

Fossey, E., Harvey, C., McDermott, F. & Davidson, L. 2019. Understanding and evaluating qualitative research. Australian and New Zealand *Journal of Psychiatry;* 36: 717–732

Foucault, M. 2019. Power/Knowledge: Selected interviews and other writings, 1972-1977. C. Gordon (Ed.). New York: Pantheon Books.

Fournier, B., Mill, J., Kipp, W. & Walusimbi, M. 2017. Discovering voice: A participatory action research study with nurses in Uganda. *International Journal of Qualitative Methods, 6*(2): 1. Retrieved from: https://www.ualberta.ca/~iiqm/backissues/6_2/Fournier

Gaventa, J. 2017. *Power after Lukes: An overview of theories of power since Lukes and their application to development.* Retrieved from: http://www.powercube.net/wp-content/uploads/2009/11/power_after_lukes.pdf

Gaventa, J. & Barrett, G. 2010. *So, What difference does it make? Mapping the outcomes of citizen engagement. Institute of development studies working paper 347*. Retrieved from: https://www.ids.ac.uk/files/dmfile/Wp347.pdf

Gaventa, J. & Cornwall, A. 2019. Power and knowledge. In P. Reason & H. Bradbury (Eds.) *Handbook of action research: Participative inquiry and practice* (70-80). London: Sage Publications.

Gaventa, J. & Pettit, J. 2018. *Strategies and forms of power*. Retrieved from http://www.powercube.net/strategize-and-act/strategies-and-forms-of-power/

Gianella, S., Mehta, S.R., Young, J.A., Vargas, M.V., Little, S.J., Richman, D.D. & Smith, D.M. 2018. Sexual transmission of predicted CXCR4-tropic HIV-1 likely originating from the source partner's seminal cells. *Virology, 434*(1): 2-4. https://doi.org/10.1016/j.virol.2012.09.010

Giddens, A. 1984. The constitution of society: outline of the theory of structuration, Cambridge: Polity Press

Gifford, W., Davies, B. & Edwards, N. 2007. Managerial leadership for nurses' use of research evidence: A integrative review of the literature. *Worldviews on Evidence-Based Nursing Third Quarter*: 126-145.

Gifford, W.A., Davies, B., Edwards, N., Graham, I.D., Tourangeau, A., Woodend, K. & Lefebre, N. 2012. Developing leadership capacity for guideline use: A pilot

cluster randomized control trial. *World Views on Evidence-Based Nursing* 10:51–65.

Gilmartin, H.M. & Sousa, K.H. 2016.Testing the quality health outcomes model applied to infection prevention in hospitals. *Quality Management Healthcare. 25*(3): 149-161. https://doi.org/10.1097/QMH.0000000000000102

Gilson, L., Erasmus, E., Kamuzora, P., Mathews, V., Ngulube, T.J. & Scott, V. 2006. *Applying policy analysis in tackling health-equity related implementation gaps. Equinet discussion paper*. Retrieved from http://www.equinetafrica.org/bibl/docs/DIS28POLgilson.pdf

Glasson, J.B., Chang, E.M., Bidewell, J.W. 2018. Value of participatory action research in clinical nursing practice. *Int J Nurs Pract, 14*(1):34-39. https://doi.org/10.1111/j.1440-172X.2007. 00665.x

Glasson, J., Chang, E., Chenoweth, L., Hancock, K., Hall, T., Hill-Murray, F. & Collier L. 2018. Evaluation of a model of nursing care for older patients using participatory action research in an acute medical ward. *Journal of Clinical Nursing 15*, 588-598.

Glied, S. & Lurie, N. 2018. From research to health policy impact. *Health Services Research, 47(*1pt2): 337-343.

Global AIDS Response Country Progress Report. 2022. [online] *Indicatorregistry.unaids.org*. Retrieved from: https://indicatorregistry.unaids.org/sites/default/files/jc2702_garpr2015guidelines_en.pdf (Retrieved on 14 August 2022).

Gong, Z., Van Swol, L. M & Wang, X. 2022. Study on the Relationship between Nurses' Mentoring Relationship and Organizational Commitment. Int J Environ Res Public Health;19(20):13362. doi: 10.3390/ijerph192013362.

Gottlieb, L. N., Gottlieb, B & Bitzas, V. 2021. Creating Empowering Conditions for Nurses with Workplace Autonomy and Agency: How Healthcare Leaders Could Be Guided by Strengths-Based Nursing and Healthcare Leadership (SBNH-L). J Healthc Leadersh;13:169-181. doi: 10.2147/JHL.S221141.

Government of Nigeria. 2010. Federal Ministry of Health, National Strategic Health Development Plan (NSHDP) 2010- 2015. Retrieved from http://www.health.gov.ng/doc/NSHDP.pdf

Grant, C. & Osanloo, A. 2018. Understanding, selecting, and integrating a theoretical framework in dissertation research: Creating the blueprint for 'house'. administrative issues. *Connecting Education, Practice and Research*, Pp. 12-22 https://doi.org/10.5929/2014.4.2 .

Gray, D.E. 2018. *Doing research in the real world*. London: Sage.

Grove, S. 2018. *Study guide for understanding nursing research*. St Louis: Mo. Elsevier.

Grove, K., Gray, R. & Burns, N. 2019. *Understanding nursing research: Building an evidence-based practice.* 6th edition. St Louis: Elsevier.

Guba, E.G. & Lincoln, Y.S. 2020. The countenances of fourth generation evaluation: Description, judgment, and negotiation. *Evaluation Studies Review Annual,* No. (11):70-78.

Habermas, J. 2018. *The theory of communicative action. Vol. 1. Reason and the rationalization of society* (T. McCarthy, trans.). Boston: Beacon.

Hajizadeh, A., Zamanzadeh, V., Kakemam, E., Bahreini, R. & Khodayari-Zarnaq, R. 2021. Factors influencing nurses' participation in the health policy-making process: A systematic review. *BMC nursing, 20*(1), 128. https://doi.org/10.1186/s12912-021-00648-6

Halcomb, L. 2018. How an understanding of paradigms can improve the quality of nursing research. *Nurse Researcher, 25*(4): 6-7.

Hall, B. 2018. Participatory research, popular knowledge and power: A personal reflection. Convergence: *An International Journal of Adult Education, 14* (3): 5-17

Hanney, S.R. & Gonzalek, M.A. 2011. Yes, research can inform health policy. But can we bridge the 'Do-knowing it's been done' gap? *Health Research Policy and Systems 9(*1): 1.

Hassmiller, S. 2016. Nursing's role in healthcare reform. *American Nurse Today, 5* (9): 13-18.

Hatch, J.A. 2022. *Doing qualitative research in education settings*. Albany: SUNY Press.

Haven, T.L. & Van Grootel, L. 2019. Preregistering qualitative research: Accountability in research: *Policies and Quality Assurance*, 32(26): 229–244.

Hayes, E. & Fritsch, R. 1988. An untapped resource: The political potential of nurses. *Nursing Administration Quarterly, 13* (1): 33-39.

Health. 2022. *World Health Statistics 2022*. [online] Who.int. Retrieved from: https://www.who.int/news/item/20-05-2022-world-health-statistics-2022 [Retrieved 14 August 2022].

Hennink, M., Hutter, I & Bailey, A. 2020. Qualitative research methods. 2nd edn. London: Sage.

Hewison, A. 2008. Evidence-based policy implications for nursing and policy involvement. *Policy, Politics and Nursing Practice, 9* (4): 288-98. https://doi.org/10.1177/1527154408323242.

Hill, C. W. H & Jones, G. R. 2019. Strategic management: An integrated approach. 10th Edition. Library of Congress. OH. USA.

Hiligsmann, M., Salas, M., Hughes, D. A., Manias, E., Gwadry-Sridhar, F. H., Linck, P & Cowell, W. 2020. Interventions to improve osteoporosis medication adherence and persistence: a systematic review and literature appraisal by the ISPOR Medication Adherence & Persistence Special Interest Group, Osteoporosis International.

Hofler, L.D. 2006. Learning from the best: The benefits of a structured health policy fellowship in developing nursing health policy leaders. *Policy, Politics & Nursing Practice, 7* (2): 110-113.

Holloway, I. & Galvin, K. 2020. *Qualitative research in nursing and healthcare. 4th edition*. United States: John Wiley & Sons.

Holmes, D. & Gastaldo, D. 2002. Nursing theory and concept development or analysis: Nursing as means of governmentality. *Journal of Advanced Nursing, 38* (6): 557-565. https://doi.org/10.1046/j.1365-2648.2002.02222.x.

Holtgrave, D., Valdiserri, R., Kalichman, S., Del Rio, C. & Thompson, M. 2020. Core elements of a national covid-19 strategy: Lessons learned from the US National HIV/AIDS Strategy. *AIDS and Behavior, 24*(12): 1 – 16.

Hudson, B. 2002. Interprofessionality in health and social care: The Achilles' heel of partnership? *Journal of Interprofessional Care,16* (1): 7-17.

Hui, L. & Tsang, M. 2018. Association between socioeconomic status and cerebral palsy. *PLOS ONE, 13*(1): e0191724.

Huiting, X. 2017. Nurses' attitudes towards research and evidence-based practice: perspectives from psychiatric setting. *JOJ Nursing & Healthcare, 3*(5).

Hulley, S.B., Cummings, S.R., Browner, W.S., Grady, D.G., Newman, T.B. 2022. *Designing clinical research*. PA: Lippincott Williams & wilkins

Hunter, DJ. 2019. Evidenced Based Policy and Practice: Riding for a fall? Royal Social Medicine, (96):194-196.

Huynh, K. & Gulick, P. 2022. *HIV Prevention*. Retrieved from: https://www.ncbi.nlm.nih.gov/books/NBK470281/ (Retrieved on 5 May 2022).

International Center for AIDS Care and Treatment Programmes (ICAP). 2018. *Nurses and Midwives: The frontline against HIV. How ICAP is building Nursing and Midwifery capacity and strengthening heath system*. Retrieved from: http://files.icap.columbia.edu/files/uploads/75509_NursingReport_FINAL_lo_res_v2.pdf

International Council of Nurses (ICN). 2010. *ICN network: Research network* Retrieved from: http://www.icn.ch/networks/research-network

International Council of Nurses (ICN). 2014. *Participation of nurses in health services decision-making and policy development*. Retrieved from http://www.icn.ch/images/stories/documents/publications/position_statements/D04_Parti cipation_Decision_Making_Policy_Development.pdf.

International Center for AIDS Care and Treatment Programme (ICAP). 2022a. *The International Center for AIDS Care and Treatment Programmes (ICAP) employees.* Retrieved from: Harris. Bearsofficialsstore.com https://bearsofficialsstore.com/company/the_international_center_for_aids_care_and_treatment_programmes_icap (Retrieved on 14 August 2022).

International Center for AIDS Care and Treatment Programme. (ICAP) 2022b. *International Center for AIDS Care and Treatment Programmes. [online] Advance-africa.com*. Retrieved from: https://www.advance-africa.com/International-Center-for-AIDS-Care-and-Treatment (Retrieved on 14 August 2022).

Imenda, S. 2018. Is there a conceptual difference between conceptual and theoretical. *Journal of Social Sciences, 38*(2): 185-195, https://doi.org/10.1080/09718923.2014.11893249 (Retrieved on 14 August 2022)

Inayat, S., Younas, A., Andleeb, S., Rasheed, S. P & Ali, P. 2023. Enhancing nurses' involvement in policy making: A qualitative study of nurse leaders. Int Nurs Rev;70(3):297-306. doi: 10.1111/inr.12828.

Institute of Medicine (IOM) of the National Academies 2018. Frameworks. Future of nursing: Leading change, advancing health. A report of the committee on the Robert Wood Johnson foundation initiative on the future of nursing, at the institute of medicine: Washington DC. *Journal of Social Science, 38*(2): 185-195

Institute of Medicine (IOM). 2010. *The future of nursing: Leading change, advancing health*. Retrieved from: http://iom.nationalacademies.org/Reports/2010/The-Future-of-Nursing-Leading-Change-Advancing-Health.aspx

Islam, M. R. 2019. Designing a PhD proposal in qualitative research; social research methodology and new techniques in analysis, interpretation and writing. In M. Islam (Ed):1-22. Hershey, PA: IGI Global, doi:10.4018/978-1-5225-7897-0.ch001.

Jabonete, F. & Roxas, R. 2022. Barriers to research utilization in nursing: A systematic review (2002–2021). *SAGE Open Nursing, 8*: 237796082210910.

Jairath, N. 2007. Global health: The role of nursing research. *Nursing Research, 56* (6): 367–368.

Jakobsen, M., Eklund Karlsson, L., Skovgaard, T. & Aro, A. 2019. Organisational factors that facilitate research use in public health policy-making: A scoping review. *Health Research Policy and Systems, 17*(1).

Jamison, R.N. & Edwards, R.R. 2019. Integrating pain management in clinical practice. *Journal of Clinical Psychology in Medical Settings, 19*(1): 49-64. http://doi.org/10.1007/s10880-012-9295-2

Jayasuriya, R. & Harris, M. 2012. The influence of power dynamics and trust on multidisciplinary collaboration: A qualitative case study of type 2 diabetes mellitus. *BMC Health Services Research*, 12(1).

Ji, Y., Lee, H., Lee, T., Choi, M., Lee, H., Kim, S., Do, H. K., Kim, S., Chu, S. H., Park, J., Kim, Y. M., Park, S. 2021. Developing an integrated curriculum for patient safety in an undergraduate nursing program: a case study. BMC Nurs;20(1):172. doi: 10.1186/s12912-021-00694-0.

Jobson, M. 2015. *Structure of the health system in South Africa*. Johannesburg: Khulumani Support Group.

John, I. 2020. *The War on HIV/AIDS: Impact on demography and the economy*. Retrieved from: http://www.naca.gov.ng/article/war-hivaids-impact-demography-and-economy.

Joint United Nations Programme on HIV and AIDS. 2012. Together We Will End AIDS. Retrieved from http://www.unaids.org/sites/default/files/en/media/unaids/contentassets/documents/epidemiology/2012/JC2296_UNAIDS_TogetherReport_2012_en.pdf.

Joy, H., Bielby, A. & Searle R. 2018. A collaborative project to enhance efficiency through dressing change practice. *Journal of Wound Care 24(*312): 314–317.

Jorm, A.F. 2015. Using the Delphi expert consensus method in mental health research. Australian & New Zealand Journal of Psychiatry, 49(10):887-897.

Kaasalainen, S., Brasil, K., Akhtar-Danesh, N., Coker, E., Ploeg, J., Donald, F., Martin-Misener, R., DiCenso, A., Hadjistavropoulos, T., Dolovich, L. & Papaioannou, A. 2019. The Evaluation of an interdisciplinary pain protocol in long term care. *Journal of American Medical Directors Association 13*: 664- 668.

Kadiri, M. 2021. The rights of indigenous people in oil producing communities: A case study of the Niger-Delta people of Nigeria*. SSRN Electronic Journal*

Kafulafuta, U., Hami, M. & Chodzaza, E. 2005. The challenge facing nurse-midwives in working towards safe motherhood in Malawi, *Malawi Medical Journal,* 17(4): 125-127.

Kalbarczyk, A., Rodriguez, D., Mahendradhata, Y., Sarker, M., Seme, A., Majumdar, P., Akinyemi, O., Kayembe, P. & Alonge, O. 2021. Barriers and facilitators to

knowledge translation activities within academic institutions in low- and middle-income countries. *Health Policy and Planning*. 36(5): 728–739. https://doi.org/10.1093/heapol/czaa188

Kapp, S. 2013. Successful implementation of clinical practice guidelines for pressure risk management in a home nursing setting. *Journal of Evaluation in Clinical Practice* 19: 895–901.

Karimi, H. & Masoudi, Alavi, N. 2018. Florence Nightingale: The Mother of Nursing. *Nursing and Midwifery Studies, 4(*2): e29475. https://doi.org/10.17795/nmsjournal29475

Kelly, L. & Cordeiro, M. 2020. Three principles of pragmatism for research on organisational processes. *Methodological Innovations, 13*(2): 205979912093724.

Kemmis, S.R & McTaggart. R. 2020. “Participatory Action Research: Communicative Action the Public Sphere. In N.K. Denzin & Y.S. Lincoln (Eds.).” *The Sage handbook of qualitative research.* Thousand Oaks: Sage

Kaiser Family Foundation. 2022. *The Global HIV/AIDS Epidemic*. [online] from: https://www.kff.org/global-health-policy/fact-sheet/the-global-hivaids-epidemic/ (Retrieved 24 January 2022).

Kiger, A. 2009. Being and doing politics: an outdated model or 21st century reality? *Journal of Advanced Nursing, 65*(9): 1976-1984.

Kilama, W.L. 2017. The 10/90 gap in sub-Saharan Africa: Resolving inequities in health research. *Acta Tropica* (112): 8-15

Kim, J., Mungherera, L., Belfer, M., Betancourt, T., Holman, S. & Fawzi, M. 2008. *Joint learning initiative on children and HIV/AIDS: Expanding access to services and protecting human rights: Integration and Expansion of PMTCT and early childhood intervention services*. Retrieved from http://www.ccaba.org/wp-content/uploads/JLICA-Learning-Group-3-Synthesis-Paper.pdf

King, B. 2010. Political ecologies of health. *Progress in Human Geography 34*(1): 38-55.

Koenig, A. 2019. Mentoring: Are we living up to our professional role as an educational leader?. *Nurse Education Today,* 79: 54-55.

Kolodkin-Gal, D., Hulot, S.L., Korioth-Schmitz, B., Gombos, R.B., Zheng, Y., Owuor, J. & Letvin, N.L. 2018. Efficiency of cell-free and cell-associated virus in mucosal transmission of human immunodeficiency virus type 1 and simian immunodeficiency virus. *J Virol, 87(*24): 13589-13597. https://doi.org/10.1128/jvi.03108-12

Koopmans, E. & Schiller, D. 2022. Understanding causation in healthcare: An introduction to critical realism. *Qualitative Health Research*, p.104973232211057.

Kordy, K., Tobin, N. & Aldrovandi, G. 2019. HIV and SIV in body fluids: From breast milk to the genitourinary tract. *Current Immunology Reviews, 15*(1): 139-152.

Kourkouta, L. & Papathanasiou, I.V. 2018. Communication in nursing practice. *Materia Socio-Medical, 26(*1): 65-67.

Kredo, T., Adeniyi, F.B., Bateganya, M. & Pienaar, E.D. 2014. Task shifting from doctors to non-doctors for initiation and maintenance of antiretroviral therapy. *Cochrane Database Systematic Reviews, 7*: CD007331. https://doi.org/10.1002/14651858.CD007331.pub3.

Krefting, L. 2019. Rigor in qualitative research: The assessment of trustworthiness. *Am J Occup Ther. Mar; 45*(3): 214-22.

Kumar, R. 2014. *Research methodology: A step-by-step guide for beginne*rs. 4th Edition. London: SAGE Publications Ltd.

Laprise, C. & Bolster-Foucault, C. 2021. Understanding barriers and facilitators to HIV testing in Canada from 2009–2019: A systematic mixed studies review. *Canada Communicable Disease Report, 47*(2): 105-125.

Laschinger, H., Almost, A. & Tuer-Hode, D. 2003. Workplace empowerment and magnet hospital characteristics: Making the link. *JONA, 33* (7): 410 – 422.

Leavitt, K. 2009. Leaders in health policy: A critical role for nursing. *Nursing Outlook, 57* (2): 73-77. https://doi.org/10.1016/j.outlook.2009.01.007

Leavy, P. 2022. *Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches*. New York: GUILFORD.

Leeder, S. 2017. Don't bury the benefits of research to improve the health system. Retrieved from http://theconversation.com/dont-bury-the-benefits-of-research-to-improve-the-health-system-13289

Leedy, P.D. & Ormrod, J.E. 2019. Practical research: Planning and design. 12th edition. New Jersey: Pearson Education International.

Leo, R. 2013. *NACA DG Daily Trust. 217, 000 People Die From HIV/Aids Annually. Interview with John Idoko. Nigeria*. Retrieved from http://allafrica.com/stories/201306180476.html

Lichtner, V., Dowding, D., Allcock, N., Keady, J., Sampson, E.L., Briggs, M., Closs, S.J. 2019. The assessment and management of pain in patients in hospital settings: A multi-case exploratory study from a decision making perspective.

*BMC Health Services Research, 16*, 427–443. https://doi.org/10.1186/s12913-016-1690-1

Lilja, K.K., Laakso, K & Palomäki, J. 2019. Using the Delphi method. In 2011 Proceedings of PICMET'11: Technology Management in the Energy Smart World (PICMET)

Lincoln, Y.S. & Guba, E.G. 2020. Paradigmatic controversies, contradictions, and emerging confluences. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*. Thousand Oaks, CA: Sage (2): 163-188

Lindebaum, D, Geddes, D. & Gabriel, Y. 2017. Moral emotions and ethics in organisations. *J Bus Ethics, 141*(0): 645-656. Retrieved from: http://doi:10.1007/s10551-016-3210-z .

LoBiondo-Wood, G. & Haber, J. 2019. *Nursing research: Methods and critical appraisal for evidence-based practice.* St. Louis, MO: Elsevier.

Loewenson, R., Flores, W., Shukla, A., Kagis, M., Baba, A., Ryklief, A., Mbwili-Muleya, C. & Kakde, D. 2019. Raising the Profile of Participatory Action Research at the 2010 Global Symposium on Health Systems Research. *MEDICC. 35*(8): 13. https://doi.org/10.1590/S1555-79602011000300008

Lolordo, A. 2012. *Acknowledging the global health community's success in Tanzania's empowering health providers to improve the quality of maternal and newborn care*. Retrieved from: www.jhpiego.org/featuredstories?page=5

Longest, B. 2006. *Health policy making in the United States* (3rd ed). Chicago: Health Administration Press.

Mackenzie, N.M. & Knipe, S. 2006. Research dilemmas: Paradigms, methods and methodology. *Issues in Educational Research,* 16(2).

MacLean, S. 2021. A conceptual continuous improvement framework to examine the "Problems of understanding" *Applied Research. Higher Learning Research Communications,* 11(2).

Maguire, M. & Delahunt, B. 2017. Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *AISHE-J: The All-Ireland Journal of Teaching and Learning in Higher Education,* 9(3).

Mandal, A. & Sarkar, A. 2020. Formal design model for service-oriented system: A conceptual perspective. *International Journal of Business and Systems Research, 14*(3): 1-23.

Manyisa, Z.M. & Van Aswegen, E.J. 2017. Factors affecting working conditions in public hospitals: A literature review. *International Journal of Africa Nursing Sciences, 6*(0): 28-38. http://dx.doi.org/10.1016/j.ijans.2017.02.002 .

Marks, D. & Yardley, L. 2018. *Research methods for clinical and health psychology*. London: Sage Publications.

Martin, J. 2017. Africa's new strategies to defeat HIV/AIDS. *Africa Renewal, 30*(3): 1-16

Mason, D.J, Leavitt, J.K. & Chaffee, M.W. 2007. Policy and politics: A framework for action. In D. J. Mason, J. K. Leavitt, and M. W. Chaffee, *Policy and Politics in Nursing and Healthcare* (5): 1-20. St. Louis, MO: Saunders Elsevier.

Mathews, A. 2012. Cognitive bias modification approaches to anxiety. *Annual Review of Clinical Psychology, 8*(1): 189-217.

McCracken, G. 2018. *The long interview. Sage university paper series on qualitative research methods, No. 13*. Newbury Park, California: Sage.

McDonald, C. 2010. Issues of gender and power: The significance attributed to nurses' work. In: McIntyreM, McDonald C, eds. *Realities of Canadian nursing: professional, practice, and power issues*. 3rd ed. Philadelphia, PA: Lippincott Williams & Wilkins; 355Y368.

McLafferty, S. 2010. Placing Pandemics: Geographic dimensions of vulnerability and spread. *Eurasian Geography and Economics 51*(2): 143-161.

McLaren, L. & Hawe, P. 2005. Ecological perspectives in health research. *Journal of Epidemiology and Community Health, 59*(0): 6-14.

McNiff, J. & Whitehead, J. 2017. *All you need to know about action research*. London: Sage Publications.

Meleis, A. 2007. *Theoretical nursing: Development and progress*. Philadelphia: Lippincott Williams and Wilkins.

Meltzer, B., Petras, J. & Reynolds, L. 2020. *Symbolic interactionism (RLE Social Theory) Genesis, varieties and criticism*. Britain: British Library Cataloguing.

Merriam, S. & Grenier, R. 2019. *Qualitative research in practice*. Newark: John Wiley & Sons, Incorporated.

Michielsen, K., Chersich, M., Temmerman, M., Dooms, T. & Van Rossem, R. 2018. Nothing as practical as a good theory? The theoretical basis of HIV prevention interventions for young people in Sub-Saharan Africa: A systematic review. *AIDS Research and Treatment*. https://doi.org/10.1155/2012/345327

Mitchell, G.J. 2003. Nursing shortage or nursing famine: Looking beyond numbers? [electronic version] *Nursing Science Quarterly, 16*(3): 219-224.

Monaco, A., Casteig Blanco, A., Cobain, M., Costa, E., Guldemond, N., Hancock, C., Onder, G., Pecorelli, S., Silva, M., Tournoy, J., Trevisan, C., Votta, M., Yfantopoulos, J., Yghemonos, S., Clay, V., Mondello Malvestiti, F., De Schaetzen, K., Sykara, G. & Donde, S. 2021. The role of collaborative,

multistakeholder partnerships in reshaping the health management of patients with noncommunicable diseases during and after the COVID-19 pandemic. *Aging Clinical and Experimental Research, 33*(10): 2899-2907.

Moshidi, M., Malema, R., Muthelo, L. & Mothiba, T. 2021. Provision of care to the people with HIV: Voices of professional nurses in the public hospitals of Limpopo Province, South Africa. *International Journal of Environmental Research and Public Health, 18*(6): 1-12. 6963-9-5.

Mozaffarian, D., Angell, S., Lang, T. & Rivera, J. 2018. Role of government policy in nutrition—barriers to and opportunities for healthier eating. *BMJ,* p.k2426.

Mundy, J. & Pow, J. 2021. General practice nurses' experiences of participation in an advanced nursing practice education programme. *British Journal of Nursing, 30*(16): 964-969.

Murray, E., Burns, J., May, C., Finch, T., O'donnell, C., Wallace, P. & Mair, F. 2018. Why is it difficult to implement e-health initiatives? A qualitative study. *Implementation Science 6*, 1–11.

Musmann, K. & Kennedy, W. 2019. *Diffusion of innovations*. New York: Greenwood Press.

Namey, E., Guest, G., Thairu, L. & Johnson, L. 2018. Data reduction techniques for large qualitative data sets. In G. Guest & K. MacQueen, *Handbook for team-based qualitative research*. New York: Altamira.

National Agency for the Control of AIDS. 2012. *Federal Republic of Nigeria global AIDS response country progress report.* Retrieved from: http://www.unaids.org/en/dataanalysis/knowyourresponse/countryprogressreports/2012co untries/Nigeria / 2012 GARPR Report Revised.pdf

National Agency for the Control of AIDS. 2014. *Federal Republic of Nigeria global AIDS response country progress report.* Retrieved from http://www.unaids.org/sites/default/files/country/documents/NGA_narrative_report_2014.pdf

National Agency for the Control of AIDS (NACA). 2015. *Federal Republic of Nigeria Global AIDS response country progress report Nigeria GARPR 201*5 Retrieved from: http://www.unaids.org/sites/default/files/country/documents/NGA_narrative_report_2015.pdf

National Agency of the Control of AIDS (NACA). 2022. *History of NACA – NACA Nigeria.* Retrieved from: https://naca.gov.ng/ (Retrieved on 5 May 2022).

National Association of Nigerian Nurses and Midwives. 2014. *The constitution of the national association of Nigerian nurses and midwives*. Retrieved from http://nannm.com.ng/2013-11-28-12-35-25/governing-organs.html

Nchinda, T. 2019. Researching capacity strengthening in the South. *Social Science and Medicine, 54* (11): 1699-1711.

Ndikom, M & Onibokun, A. 2019. Knowledge and behaviour of nurse/midwives in the prevention of vertical transmission of HIV in Owerri, Imo State, Nigeria: A cross-sectional study. *BMC Nursing, 6* (9). https://doi.org/10.1186/1472-6955-6-9 .

Niazkhani, Z., Toni, E., Cheshmekaboodi, M., Georgiou, A. & Pirnejad, H. 2020. Barriers to patient, provider, and caregiver adoption and use of electronic personal health records in chronic care: a systematic review. *BMC medical informatics and decision making, 20*(1): 153. https://doi.org/10.1186/s12911-020-01159-1

Nibbelink, C.W. & Brewer, B.B. 2018. Decision-making in nursing practice: An integrative literature review. *Journal of Clinical Nursing, 27*(5-6): 917–928. https://doi.org/10.1111/jocn.14151

Nickols, F. 2016. Definitions and meanings. Strategy, pp 1-2.

NIH. 2022. *The Basics of HIV Prevention.* Retrieved from: https://hivinfo.nih.gov/understanding-hiv/fact-sheets/basics-hiv-prevention [Retrieved 4 May 2022].

Nigeria Federal Ministry of Health. 2022. *Health minister declares improvements in HIV treatment-coverage despite covid-19 induced disruptions*. Retrieved from: https://health.gov.ng/doc/Nigeria-2019-MPR-Report.pdf (Retrieved 14 August 2022).

Obasanjo, I. & Oduwole, M. 2006. Influencing HIV/AIDS policies and programmes through a participatory process. In. O. Adeyi, P. J. Kanki, O. Odutolu, & J. A. Idoko, (Eds.), *AIDS in Nigeria: A nation on the threshold*. Cambridge, MA: Harvard University Press.

O'Brien, R. 2021. *An overview of the methodological approach of action research. In Theory and practice of action research, edited by Roberto Richardson*. João Pessoa, Brazil. http://www.web.ca/~robrien/papers/arfinal.html.

Ofi, B., Sowunmi, L., Edet, D. & Anarado, N. 2018. Professional nurses' opinion on research and research utilisation for promoting quality nursing care in selected teaching hospitals in Nigeria. *International Journal of Nursing Practice, 14*(3): 243-255.

Ogbolu, Y., Iwu, E., Zhu, S. & Johnson, J. 2018. Translating research into practice in low resource countries: Progress in prevention of maternal to child transmission

of HIV in Nigeria. *Nursing Research and Practice*. http://dx.doi.org/10.1155/2013/848567

Olajumoke, A., Yemisi, B. & Gabriel, A. 2021. Information and communication technology use on effective administration of public secondary schools, Lagos State, Nigeria. *International Journal of Innovative Research in Education, Technology & Social Strategies, 8*(1): 37-47.

Omowaleola, A. 2018. Review: Strategies for achieving the fourth and fifth millennium development goals in Nigeria: Nursing perspective. *International Journal of Nursing and Midwifery, 5* (6): 106 -112. https://doi.org/10.5897/IJNM2013.0103.

Oppenheim, B., Gallivan, M., Madhav, N., Brown, N., Serhiyenko, V., Wolfe, N. & Ayscue, P. 2019. Assessing global preparedness for the next pandemic: development and application of an epidemic preparedness index. *BMJ Global Health, 4*(1): 001157.

Osain, M. 2019. The Nigerian healthcare system: Need for integrating adequate medical intelligence and surveillance systems. *Journal of Pharmacy and Bio-allied Sciences, 3* (4): 470-478.

Overbaugh, K., Byrne, D. & DiGiacomo, P. 2022. *Engaging nursing students in advance care planning. Nurse educator*, Publish Ahead of Print.

Palinkas, L.A., Horwits, S.M., Green, C.A., Wisdom, J.P., Duan, N. & Hoagwood, K. 2020. Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research 42*(5): 533-544.

Pan American Health Organization. 2018. Nursing and midwifery services contributing to equity, access, coverage, quality and sustainability in the health services: Mid-term plan. Washington. Retrieved from: http://www.paho.org/hq./index.php?option=com_docman&task=doc

Park, P., Brydon-Miller, M., Hall, B. & Jackson, T. 2019. *Voices of change: participatory research in the United States and Canada.* Toronto: The Ontario Institute for Studies in Education.

Pastor-Montero, S.M., Romero-Sánchez, J.M., Paramio-Cuevas, J.C., Hueso-Montoro, C., Paloma-Castro, O., Lillo-Crespo, M., Frandsen, A.J. 2018. Tackling perinatal loss, a participatory action research approach: Research protocol. *Journal of Advanced Nursing, 68*(11): 2578–2585.

Paternoster, L. 2011. Leadership and self-advocacy *New Mexico Nurse*; 56 (4): 1 Patton, M. 2019. Qualitative research and evaluation methods. (3rd ed.). California: Sage Publications.

Patten, M.L & Newhart, M. 2018. Understanding research methods: An overview of the essentials. 10th edn. New York: Routledge.

Payne, S. 2006. *The health of men and women*. Cambridge: Polity.

Payne, S. & Doyal, L. 2010. Gender inequity or gender inequality in health. *The Polity Press* 381: 171-175.

Pearce, J.A. & Robinson, R.B. 2016. *Strategic management: formulation, implementation, and control*. 7th ed. Boston: Irwin McGraw-Hill. 468 p

Phaladze, A. 2003. The role of nurses in the human immunodeficiency virus/acquired immune deficiency syndrome policy process in Botswana. *International Nursing* (50): 22-33. https://doi.org/10.1046/j.1466-7657.2003.00167.

Pigozzi, M.J. 2022. Participation in non-formal education projects: Some possible negative outcomes. In convergence: An *International Journal of Adult Education, 25* (3): 6-19.

Poister, T. H, Edwards, L. H & Pasha, O. 2013. The impact of strategic planning on organizational outcomes. Public Performance and Management Review 36(4):585-615.

Polifroni, E. & Welch, M. 1999. *Perspectives on philosophy of science in nursing: An historical and contemporary anthology*. Philadelphia: Lippincott.

Polit, D.F. & Beck, C.T. 2021. *Nursing research: Generating and assessing evidence for nursing practice,* 10th edition. United States: Lippincott Williams and Wilkins.

Poorchangizi, B., Borhani, F., Abbaszadeh, A., Mirzaee, M. & Farokhzadian, J. 2019. The importance of professional values from nursing students' perspective. *BMC Nursing*, 18(1).

Premji, S.S & Hatfield, J. 2016. Call to action for nurses/nursing. *BioMed Research International*. https://doi.org/10.1155/2016/3127543

President's Emergency AIDS Relief Plan. 2022. *The United States President's emergency plan for aids relief - United States Department of State United States Department of State*. Retrieved from: https://www.state.gov/pepfar/ [Retrieved 14 August 2022].

Priest, H., Seagrott, J., Green, B. & Rout, A. 2019. Harnessing collaboration to build nursing research capacity: A research team journey. *Nurse Education Today*, 27(6): 577-87. http://dx.doi.org/10.1016/j.nedt.2006.08.019

Punch, K.F. 2018. *Introduction to social research: Quantitative & qualitative approaches.* London: Sage.

Rafferty, A.M, Traynor, M., Thompson, D.R., Ilott, I. & White, E. 2003. Research in nursing, midwifery, and the allied health professions: Quantum leap required for

quality research. *British Medical Journal*, (326): 833-834. https://doi.org/10.1136/bmj.326.7394.833.

Rains, J.W. & Carroll, K.L. 2000. The effect of heathy policy education on self-perceived political competence of graduate nursing students. *Journal of Nursing Education, 39(*1): 37-40.

Ramsay, S. 2001. No closure in sight for the 10/90 health-research gap. *Lancet. Oct 20;* 358(9290): 1348.

Rasmi Issa, M., Awaje H.A. & Khraisat, F. 2017. Knowledge and attitude about pain and pain management among critical care nurses in a tertiary hospital. *Journal Of Intensive and Critical Care, 03*(01). https://doi.org/10.21767/2471-8505.100071

Ravitch, S.M. & Carl, N.M. 2016. *Qualitative research: Bridging the conceptual, theoretical and methodologica*l. Los Angeles, U.S.A.: SAGE Publications, Inc.

Rayment, M. 2012. Prevention of HIV-1 infection with early antiretroviral therapy. *Journal of Family Planning and Reproductive Healthcare, 38*(3): 193-193.

Redfeam, M., Lacey, L., Cox, K. & Teasley, S. 2004. An infrastructure for organisational support for research. *Journal of Nursing Administration*, (34): 346-353.

Reeves, O. 2018. *Assessment and management of pain.* 3rd edition. Toronto: Registered Nurses Association of Ontario.

Richards, D. & Engle, S. 2018. After the vision: Suggestions to corporate visionaries and vision champions. In J. D. Adams, *Transforming leadership.* Alexandria. Englewood cliffs, NJ: Prentive Hall

Richter, M., Mill, J., Muller, C., Kahwa, E., Etowa, J., Dawkins, P. & Hepburn, C. 2017. Nurses' engagement in AIDS policy development. *International Nursing Review*, 60(1): 52-58.

Riley, P., Vindigni, S., Arudo, J., Waudo, A., Kamenju, A., Ngoya, J. & Marum, L. 2007. Developing a nursing database system in Kenya. *Health Services Research Journal, 42* (3): 1389-1405. https://doi.org/10.1111/j.1475-6773.2007. 00715.x.

Rivaz, M., Momennasab, M., Yektatalab, S., Ebadi, A. 2017. Adequate resources as essential component in the nursing practice environment: A qualitative study. *J Clin Diagn Res*. https://doi.org/10.7860/JCDR/2017/25349.9986.

Rodger, A., Cambiano, V., Bruun, T., Vernazza, P., Collins, S., Van Lunzen, J., Corbelli, G., Estrada, V., Geretti, A., Beloukas, A., Asboe, D., Viciana, P., Gutiérrez, F., Clotet, B., Pradier, C., Gerstoft, J., Weber, R., Westling, K., Wandeler, G., Prins, J., Rieger, A., Stoeckle, M., Kümmerle, T., Bini, T., Ammassari, A., Gilson, R., Krznaric, I., Ristola, M., Zangerle, R., Handberg, P.,

Antela, A., Allan, S., Phillips, A. & Lundgren, J. 2016. Sexual activity without condoms and risk of HIV transmission in serodifferent couples when the hiv-positive partner is using suppressive antiretroviral therapy. *JAMA, 316*(2):171.

Romer, D., Brighty, D.W., Robson, C.L. & Sattentau, Q.J. 2019. Candidate polyanionic microbicides inhibit human T-cell lymphotropic virus type 1 receptor interactions, cell-free infection, and cell-cell spread. *Antimicrob Agents Chemother, 53*(2): 678-687. https://doi.org/10.1128/aac.01550-07

Rowe, G & Wright, G. 2021. Expert opinions in forecasting: the role of the Delphi technique. In Principles of forecasting: Springer, Boston, MA: 125-144

Roxburgh, M. 2019. An exploration of factors which constrain nurses from research participation. *Journal of Clinical Nursing, 15* (5): 535-545.

Rubin, A & Babbie, E.R. 2017. Research methods for social work. Boston, MA: Cengage Learning.

Rujumba, J., Neema, S., Byamugisha, R., Tylleskär, T., Tumwine, J. & Heggenhougen, H. 2012. *Journal of the International AIDS Society, 15*: 17429 Retrieved from: http://www.jiasociety.org/index.php/jias/article/view/17429 http://dx.doi.org/10.7448/IAS.15.2.17429

Ryan-Nicholls, K.D. 2004. Impact of health reform on registered psychiatric nursing practice. *Journal of Psychiatric Mental Health Nursing, 11* (6): 644-653.

SA Government, DPSA. 2022. *HIV and AIDS, STI AND TB management* Retrieved from: https://www.dpsa.gov.za/dpsa2g/documents/cos/2002 [Retrieved 14 August 2022].

Salmond, S.W. & Echevarria, M. 2017. Healthcare transformation and changing roles for nursing. *Orthopedic Nursing, 36*(1): 12-25. https://doi.org/10.1097/NOR.0000000000000308

Salviejo, E., Aranes, F & Espinosa, A. 2014. Strategic Intervention material-based instruction, learning approach and students' performance in chemistry. International Journal of Learning, Teaching and Education Research 2(1):91-123.

Sanne, C., Orrell, M. & Fox, P. 2010. Nurse versus doctor management of HIV-infected patients receiving antiretroviral therapy (CIPRA-SA): A randomised non-inferiority trial. *The Lancet, 376* (9734): 33-40.

Savin-Baden, M. & Major, C.H. 2013. Qualitative research: The essential guide to theory and practice. London: Routledge Taylor & Francis Group.

Sax, P. 2020. *100 Questions and answers about hiv and aids*. Burlington: Jones & Bartlett Learning, LLC.

Schoepf, B.G. 2001. International AIDS research in Anthropology: Taking a critical perspective on the crisis. *Annu. Rev. Anthropol* 30: 335-361.

Schwandt, T.A. 2021. *Dictionary of qualitative inquiry. 2.* Thousand Oaks, CA: Sage Publications, Inc.

Schwartz, S., Unger, J., Zamboanga, B. & Szapocznik, J. 2019. Rethinking the concept of acculturation: Implications for theory and research. *American Psychologist, 65*(4): 237-251.

Schwartz, S., Szabo, A., Meca, A., Ward, C., Martinez, C., Cobb, C., Benet-Martínez, V., Unger, J. & Pantea, N. 2020. The convergence between cultural psychology and developmental science: Acculturation as an exemplar. *Frontiers in Psychology,* 11.

Scotland, J. 2018. Exploring the philosophical underpinnings of research: Relating ontology and epistemology to the methodology and methods of the scientific, interpretive, and critical research paradigms. *English Language Teaching, 5*(9): 9-16.

Segrott, J., McIvor, M. & Green, B. 2006. Challenges and strategies in developing nursing research capacity: A review of the literature. *International Journal of Nursing Studies,* (43): 637-651.

Senkubuge, F. & Mayosi, B.M. 2012. "*The state of the National Health Research system in South Africa: leadership and governance*." Retrieved from: http://hdl.handle.net/2263/21499

Shariff, N. 2015. Empowerment model for nurse leaders participation in health policy development: An East African perspective. *BMC Nursing* 14:31 https://doi.org/10.1186/s12912-015-0078-6

Shariff, N. 2014. Factors that act as facilitators and barriers to nurse leaders' participation in health policy development. *BMC Nursing*, 13 (1). https://doi.org/10.1186/1472-6955-13-20.

Shariff, N. & Potgieter, E. 2012. Extent of East-African nurse leaders' participation in health policy development. *Nursing Research and Practice*, 504697. https://doi.org/10.1155/2012/504697 .

Shaw, S. 2007. *International Council of Nurses: Nursing Leadership*. Oxford: Blackwell.

Shiwnarain, M. 2017. *CDC Agrees: Sexual transmission of hiv cannot happen when viral load is undetectable*. London: Science Trends.

Silverman, D. 2019*. Interpreting qualitative data: A guide to the principles of qualitative research*. 4th edition. Los Angeles: SAGE Publications

Skinner, R., Nelson, R.R., Chin, W.W. & Land, L. 2015. The Delphi method research

strategy in studies of information systems.

Slam, M. 2018. Informed consent of human subjects: A review. *Bangladesh Journal of Bioethics* 5(1).

Smirnoff, M., Ramirez, M., Kooplimae, L., Gibney, M. & Dee McEvoy, M. 2005. Nurses' attitudes toward nursing research at a metropolitan medical center. *Applied Nursing Research, 20* (1): 24-31. https://doi.org/10.1016/j.apnr.2005.11.003.

Smith, S.A. & Derdeyn, C.A. 2016. Harnessing the protective potential of HIV-1 neutralizing antibodies. *F1000Research, 5, F1000 Faculty Rev-1020*. https://doi.org/10.12688/f1000research.7254.1

Smith, J. & Firth, J. 2019. Qualitative data analysis: The framework approach. *Nurse Researcher*,18: 52-62. http://dx.doi.org/10.7748/nr2011.01.18.2.52.c8284 .

Smith, L. & Romero, L. 2020. Psychological interventions in the context of poverty: Practicing participatory action research. *American Journal of Orthopsychiatry*, 80, 12–25.

South African Department of Health (DoH). 2022. *Department of Health. South African Government. HIV/Aids Guidelines*. Retrieved from: https://www.gov.za/department-health-m [Retrieved 14 August 2022].

Spenceley, S.M., Reutter, L. & Allen, MN. 2018. The road less travelled: Nursing advocacy at the policy level. *Policy, Politics, & Nursing Practice,* (7): 180-194. https://doi.org/10.1177/1527154406293683

Squires, J.E., Hutchinson, A.M., Boström, A., O'Rourke, H.M., Cobban, S.J. & Estabrooks, C.A. 2011. To what extent do nurses use research in clinical practice? A systematic review*. Implement Sci 6:* 21.

Squires, A., Sadarangani, T & Jones, S. 2020. Strategies for overcoming language barriers in research. J Adv Nurs;76(2):706-714. doi: 10.1111/jan.14007.

Stake, R.E. 2018. *The art of case study research*. Thousand Oaks, CA: Sage.

Stevens, P. 1989. A critical social reconceptualization environment in nursing: Implication for methodology. *Advances in nursing sciences.11*(4): 56 -68

Stimpson, M. & Hanley, B. 2009. Nurse policy analyst: Advanced practice role. *Nursing and Healthcare, 12* (1): 10-5.

Streubert, H.J. & Carpenter, D.R. 2018. *Qualitative research in nursing: Advancing the humanistic imperative*. 3rd edn. Philadelphia: Lippincott Williams and Wilkins. (7):35–56.

Streubert- Speziale, H. 2017. *Qualitative research in nursing*. Philadelphia: Lippincott Williams & Wilkins.

Streubert, H. 2019. *Qualitative research in nursing*. Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins.

Sturke, R., Harmston, C., Simonds, R.J., Mofenson, L.M., Siberry, G.K., Watts, D.H., & Nagel, J.D. 2018. A multi-disciplinary approach to implementation science: The NIH-PEPFAR PMTCT Implementation science alliance. *Journal of Acquired Immune Deficiency Syndromes,* (67): 163–167.

Swakhalen, S., Hamers, J., Peijnenburg, R. & Berger, M. 2017. Nursing staff knowledge and beliefs about pain in elderly nursing home residents with dementia. *Pain Research and Management 12*(3): 177-184.

Taft, S.H. & Nanna, K.M. 2008. What are the sources of health policy that influence nursing practice? *Policy Polit. Nurs. Pract. 9*(4): 274-87. https://.doi.org/10.1177/1527154408319287.

Tagum, R. 2018. *Participatory research / Participatory action research. Phillippe Normal University college of education. Taft avenue. Manila*. Retrieved from: http://www.slideshare.net/reynantetagum/participatory-action-research-16414937

Takalimane, M. 2018. Perceptions of nurses regarding information and communication technology at a rural hospital in Lesotho. *Texila International Journal of Academic Research, 5*(1): 65-72.

Tan, J.Y., Pratto, F., Paul, J. & Choi, K.H. 2018. A social-ecological perspective on power and HIV/AIDS with a sample of men who have sex with men of colour. *Culture, Health & Sexuality*, 16(2): 1-15. https://doi.org/10.1080/13691058.2013.855821

Taylor, S.J. & Bogdan, R. 2018. *Introduction to qualitative research methods*. New York: John Wiley.

Taylor, J., Coates, E., Brewster, L., Mountain, G., Wessels, B. & Hawley, M.S. 2015. Examining the use of telehealth in community nursing: Identifying the factors affecting frontline staff acceptance and telehealth adoption. *Journal of Advanced Nursing 71, 326–337.*

Thanh, N.C. & Thanh, T.T.L. 2020. The interconnection between interpretivist paradigm and qualitative methods in education. *American Journal of Educational Science, 1(2): 24-27.*

Thigpen, M., Kebaabetswe, P., Paxton, L., Smith, D., Rose, C., Segolodi, T., Henderson, F., Pathak, S., Soud, F., Chillag, K., Mutanhaurwa, R., Chirwa, L., Kasonde, M., Abebe, D., Buliva, E., Gvetadze, R., Johnson, S., Sukalac, T., Thomas, V., Hart, C., Johnson, J., Malotte, C., Hendrix, C. & Brooks, J. 2012. Antiretroviral Preexposure prophylaxis for heterosexual HIV transmission in Botswana. *New England Journal of Medicine, 367*(5): 423-434.

Thomas, G. 2017. *How to do your research project: A guide for students*, 3rd ed. London: Sage.

Tingen, M. S., Burnett, A. H., Murchison, R. B & Zhu, H. 2009. The importance of nursing research. J Nurs Educ;48(3):167-70. doi: 10.3928/01484834-20090301-10.

Tobin, G. & Begley, C. 2021. Methodological rigour within a qualitative framework. *Journal of Advanced Nursing, 48*(4): 388-396.

Toofany, S. 2005. Nurses and health policy. *Nursing Management,12* (3), 26-30.

Tuckett, A. 2004. Qualitative research sampling: The very real complexities. *Nurse Researcher, 12* (1): 47-61.

Ugochukwu, C.G., Uys, L.R., Karani, A.K., Okoronkwo, I.L. & Diop, B.N. 2013. Roles of nurses in Sub-Saharan African region. *International Journal of Nursing and Midwifery, 5*(7): 117-131.

Ukaegbu, E., Alibekova, R., Ali, S., Crape, B. & Issanov, A. 2022. Trends of HIV/AIDS knowledge and attitudes among Nigerian women between 2007 and 2017 using multiple indicator cluster survey data. *BMC Public Health, 22*(1).

UNAIDS. 2011. *Global plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive*. Retrieved from http://www.unaids.org/en/resources/campaigns/globalplan

UNAIDS. 2012a. *UNAIDS Report on the global AIDS epidemic*. Retrieved from http://www.unaids.org/sites/default/files/en/media/unaids/contentassets/documents/epidemiology/2012/gr2012/20121120_UNAIDS_Global_Report_2012_with_annexes_en.pdf .

UNAIDS. 2012b. *Nigerian governors commit to stopping new HIV infection*s. Retrieved From http://www.unaids.org/en/resources/presscentre/featurestories/2012/April/2012

UNAIDS. 2014. *The gap reports*. Retrieved from: http://www.unaids.org/en/resources/campaigns/2014/2014gapreport/gapreport

UNAIDS. 2014. *HIV and AIDS estimates 2014*. Retrieved from: http://www.unaids.org/en/regionscountries/countries/Nigeria

UNAIDS. 2019. *New survey results indicate that Nigeria has an HIV prevalence of 1.4%.* Available at: https://www.unaids.org/en/resources/presscentre/pressreleaseandstatementarchive/2019/march/20190314_nigeria [Retrieved on 5 May 2022].

UNAIDS. 2022. *Nigeria adapts strategy to end the AIDS epidemic*. Retrieved from: https://www.unaids.org/en/resources/presscentre/featurestories/2019/march/20190320_nigeria [Retrieved 24 January 2022].

UNISA. 2020a. *Covid-19 guidelines: Implication of alert levels for researchers and postgraduates' students*. Pretoria. University of South Africa.

UNISA. 2020b. *University of South Africa COVID-19 Position statement on research ethics*. Pretoria. University of South Africa

United States President's Emergency Plan for AIDS relief (PEPFAR). 2005. *Focusing on our future: Prevention, diagnosis, and treatment of paediatric HIV/AIDS.* Retrieved from http://www.pepfar.gov/reports/progress/76868.htm

United States President's Emergency Plan for AIDS Relief. 2010. *Section III: PEPFAR operational plan narratives: Zambia*. Retrieved from http://www.pepfar.gov/about/2010/africa/150629.htm

United States President's Emergency Plan for AIDS Relief (PEPFAR). 2011. *Myths and misconceptions: media aids driving heath*. Retrieved from http://www.mediaaids.org/content/page/myths_and_misconceptions_about_hiv_aids.

Vabo, G., Slettebo, Å. & Fossum, M. 2016. Participants' perceptions of an intervention implemented in an action research nursing documentation Project. *Journal of Clinical Nursing* (26): 983–993.

Varpio, L., Paradis, E., Uijtdehaage, S. & Young, M. 2019. The distinctions between theory, theoretical framework, and conceptual framework. *Academic Medicine, 95*(7): 989-994.

Velho, L. 2020. Building social science research capacity in Bolivia: An institutional innovation. *International Social Science Journal, 56* (180): 257-70.

Verma, A. S., Kumar, V., Saha, M. K., Dutta, S & Singh, A. 2019. HIV: biology to treatment. NanoBioMedicine. (1)167-197. doi:10.1007/978-981-32-9898-9_7

Vogt, W.P., Haffaele, L.M. & Gardner, D.C. 2018. *When to use what research design*. New York: Guildford Press.

Waddell, A, Adams, J & Fawcett, J. 2017. Exploring nurse leaders' policy participation within the context of a nursing conceptual framework. *Policy, Politics, & amp; Nursing Practice, 18*(4): 195-205.

Walby, K. & Luscombe, A. 2018. Ethics review and freedom of information requests in qualitative research. *Research Ethics, 14*(4): 1-15.

Walliman, N. 2017. Social research methods. 2nd edn. London: Sage.

Walter, M. 2019. Participatory action research. Social research methods. In A. Bryman (Ed.), *Social research methods*. London: The Falmer Press.

Walugembe, D.R., Kiwanuka, S.N., Matovu, J.K.B., Rutebemberwa, E. & Reichenbach, L. 2015. Utilization of research findings for health policy making and

practice: evidence from three case studies in Bangladesh. *Health Research Policy and Systems 13*: 26 https://doi.org/10.1186/s12961-015-0015-x

Wang, Y., Chien, W. & Twinn, S. 2011. An exploratory study on baccalaureate-prepared nurses' perceptions regarding clinical decision-making in Mainland China. *Journal of Clinical Nursing,* (21): 11-12, 1706-15. https://doi.org/10.1111/j.1365-2702.2011.03925.x

Weber, M. 2018. The distribution of power within the community: Classes, stände, parties by Max Weber. *Journal of Classical Sociology, 10* (10): 137-152. https://doi.org/10.1177/1468795X10361546.

Weber, J., Edwards, N. & Roelofs, S. 2018. Business plan for an international research internship strategy. *Health Canada Office of Nursing Policy*, Ottawa

Whitehead, M., Petticrew, M. & Graham, H. 2020. Evidence for public health policy on inequalities, *Journal of Epidemiology Community Health*, (328): 817-821.

WHO. 2006a. *Everybody's business – Strengthening healthcare systems to improve health outcomes: WHO's framework for action*. Retrieved from http://apps.who.int/iris/handle/10665/43918

WHO. 2006b. *Towards better leadership and management in health: Report on an international consultation on strengthening leadership and management in low-income countries.* Retrieved from: http://www.who.int/management/working_paper_10_en_opt.pdf.

WHO. 2007. *World health statistics 2009*. Retrieved from: http://www.who.int/gho/publications/world_health_statistics/EN_WHS09_Full.pdf

WHO. 2010a. *Human capacity-building plan for scaling up HIV/AIDS treatment*. http://www.who.int/3by5/publications/documents/capacity_building/en/index1.html.

WHO. 2010b. *Guideline on when to start antiretroviral therapy and on pre-exposure prophylaxis for HIV* Retrieved from: https://aidsinfo.unaids.org/ [Retrieved 9 December 2021].

World Health Organisation (WHO). 2011. *Framework for action on interprofessional education and collaborative practice, World Health Organisation*. Retrieved from: http://www.who.int/hrh/resources/framework_action/en

WHO. 2012a. *The WHO Strategy on Research for Health*. Retrieved from: www.who.int/phi/WHO_Strategy_on_research_for_health .

WHO. 2012b. *Changing mindsets: Strategy on health policy and systems research*. Retrieved from http://www.who.int/alliance-hpsr/alliancehpsr_changingmindsets_strategyhpsr.pdf .

WHO. 2014. *HIV/AIDS fact sheet N°360*. Retrieved From: http://www.who.int/mediacentre/factsheetss360/en/

WHO. 2015. *Healthcare professionals (HCPs) and their role in achieving MDGs 4 & 5: multi-country workshops*. Prepared by the partnership for maternal, newborn & child health. Retrieved from: http://www.who.int/pmnch/activities/advocacy/regional/healthcareprofessionals/en/

WHO. 2017. *Guidelines for managing advanced HIV disease and rapid initiation of antiretroviral therapy (Geneva)*. Retrieved from: https://apps.who.int/iris/bitstream/handle/10665/255884/9789241550062eng.pdf;jsessionid=895817F0B8F27156472826D7186BC060?sequence=1

WHO. 2022. *HIV and AIDS*. Available at: https://www.who.int/news-room/fact-sheets/detail/hiv-aids [Retrieved 5 February 2022].

Williams, B., Amico, K. R & Konkle-Parker, D. 2011. Qualitative to assessment of barriers and facilitators to HIV treatment. J Assoc Nurses AIDS Care;22(4):307-12. doi: 10.1016/j.jana.2010.11.001.

Williamson, K., Given, L.M. & Scifleet, P. 2018. Qualitative data analysis. London: Elsevier

Wilson, A, Whitaker, N & Whitford, D. 2012. Rising to the challenge of healthcare reform with entrepreneurial and intrapreneurial nursing initiatives. Online *Journal of Issues in Nursing,*17 (2): 5. https://doi.org/10.3912/OJIN.Vol17No02Man05.

Xue, Y., Zhang, Z., Wen, C., Liu, H., Wang, S., Li, J., Zhuge, Q., Chen, W. & Ye, Q. 2019. Characterisation of Alzheimer's disease using ultra-high b-values apparent diffusion coefficient and diffusion kurtosis imaging. *Ageing and disease*, 10(5): 1-26.

Yin, R.K. 2018. *Qualitative research from start to finish*. England: Guilford Publications.

Zanolini, A., Sikombe, K., Sikazwe, I., Eshun-Wilson, I., Somwe, P., Bolton Moore, C., Topp, S., Czaicki, N., Beres, L., Mwamba, C., Padian, N., Holmes, C. & Geng, E. 2018. Understanding preferences for HIV care and treatment in Zambia: Evidence from a discrete choice experiment among patients who have been lost to follow-up. *PLOS Medicine, 15*(8): e1002636.

Zembe, Y. & Ekstrom, A. 2015. Intimate partner violence, relationship power inequity and the role of sexual and social risk factors in the production of violence among young women who have multiple sexual partners in a Peri-Urban setting in South Africa. *PLOS ONE, 10*(11): e0139430.

Zhang, H. & Zhang, H. 2021. Entry, egress and vertical transmission of SARS-CoV-2. *Journal of Molecular Cell Biology*,

## ANNEXURE A: COLLEGE OF HUMAN SCIENCES ETHICAL CLEARANCE

COLLEGE OF HUMAN SCIENCES RESEARCH ETHICS REVIEW COMMITTEE

07 June 2022

Dear Mr JUSTIN OLUWASEGUN ROJAYE

| NHREC Registration # : Rec-240816-052 |
|---|
| CREC Reference # : 60825588_CREC_CHS_2022 |

| **Decision:** |
|---|
| **Ethics Approval from 07 June 2022 to 07 June 2027** |

**Researcher(s):** **Name: Mr JO Rojaye**
**Contact details:** 60825588@mylife.unisa.ac.za

**Supervisor(s):** **Name: Dr. T.R. Netangaheni**
**Contact details:** netantr@unisa.ac.za

**Title: Strategies to Enhance Nurses' Participation in Healthcare Research in the Context of HIV and AIDS Transmission in Nigeria**

**Degree Purpose: PHD**

Thank you for the application for research ethics clearance by the Unisa College of Human Science Ethics Committee. Ethics approval is granted for five years.

The *low risk application was reviewed by* College of Human Sciences Research Ethics Committee, in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the College Ethics Review Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the

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confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.

5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data require additional ethics clearance.
7. No fieldwork activities may continue after the expiry date **(07 June 2027).** Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

*Note:*

*The reference number **60825588_CREC_CHS_2022** should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Yours sincerely,

Signature:

Prof. KB Khan
CHS Research Ethics Committee Chairperson
Email: khankb@unisa.ac.za
Tel: (012) 429 8210

Signature: PP

Prof K. Masemola
Exécutive Dean: CHS
E-mail: masemk@unisa.ac.za
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## ANNEXURE B: LETTER OF REQUEST TO CONDUCT STUDY

PERMISSION LETTER

Request for permission to conduct research at State General Hospital, Ijebu Ode.

Title: Strategies to Enhance Nurses' Participation in Healthcare Research in the Context of HIV and AIDS Transmission in Nigeria.

May 06/2022.

State General Hospital,
Olisa Street beside Olisa Roundabout,
Ijebu Ode, Ogun State.
Nigeria.

Dear Medical Director,
I, Justin Rojaye am researching with Dr. TR Netangaheni, a senior lecturer in the Department of Health Studies towards a Doctor of Philosophy in Nursing at the University of South Africa. We are inviting you to participate in a study entitled "Strategies to Enhance Nurses' Participation in Healthcare Research in Nigeria' Context of Transmission of HIV and AIDS".

The study aims to examine nurses' active participation in research production within the context of transmission of HIV and AIDS in Ogun State, Nigeria. The ultimate aim is to recommend measures for the effective participation of nurses in HIV and AIDS research. Examining their contribution and barriers will facilitate the creation of groups and programs to promote skills and effective participation of nurses in research which will address the burden of nurses' participation in research on HIV and AIDS transmission in Nigeria.

Your hospital has been selected because the researcher believes the level of nurses you have will apply to the research and they will be able to answer the research questions. The study will entail a focus group interview of nurses working at your hospital. The focus group interview will not be more than one hour. There are no potential risks associated with this research with all participants and your hospital.

This request is introduced to the General Hospital Ijebu Ode to obtain approval to collect information from registered nurses working at your hospital located in Ijebu Ode, Ogun State, Nigeria for the study.
My supervisor and the chairperson of the Ethics Committee can be accessed through the following details:

Supervisor: Dr Robert Thinavhuyo Netangaheni
Tel: +076 189 5087
+0124296719
Email: netantr@unisa.ac.za
Ethics committee chair: Ms. S. Muchengetwa
Email: Muches@unisa.ac.za

Yours sincerely

Mr Justin Oluwasegun Rojaye
ID Number: 60825588
5 Boone Crescent
Kleinburg, Ontario L4H 4T7
Cell Number: +1 416 302 3071
Email: 60825588@mylife.unisa.ac.za

## ANNEXURE C: LETTER OF APPROVAL TO CONDUCT THE STUDY

ORIGINAL
**PRIVATE MAIL BAG No 2056**
**IJEBU ODE.**

**Date: 12/07/2022**

GENERAL HOSPITAL

IJEBU – ODE, OGUN STATE, NIGERIA.

Your Ref No:
All Correspondence should be addressed to the
Admin Office quoting:
Our Ref No: GH 2022/64

OFFICIAL PERMISSION TO CONDUCT RESEARCH

The Administrative Section of the Ijebu Ode General Hospital reviewed your application to conduct a study at our hospital in Ijebu Ode, Ogun State, Nigeria. This is to inform you that your request to conduct the study on **STRATEGIES TO ENHANCE NURSES' PARTICIPATION IN HEALTHCARE RESEARCH IN THE CONTEXT OF HIV AND AIDS TRANSMISSION IN NIGERIA** in Ijebu Ode General Hospital for partial fulfillment to your Doctor of Philosophy at the University of South Africa has been approved. Kindly be informed that there should be no action that disrupts the hospital's nursing services in the course of your study. After completing the study, a copy of your final report should be submitted to the Nursing Department to serve as a resource.

The researcher should be prepared to assist in the interpretation and implementation of the study recommendation where possible. You are requested to respect the confidentiality of the study participants and the hospital. The above approval is valid for three years. If the proposal has been amended, a new authorization should be sought from the hospital. All findings from the research must receive appropriate approval by Ijebu Ode General Hospital Medical Director/designate before their release.

Your cooperation will be highly appreciated. I wish you much success in your study and look forward to receiving a report of your findings.

Sincerely

MEDICAL DIRECTOR.

1

## ANNEXURE D: INFORMED CONSENT TO PARTICIPATE IN THE STUDY

CONSENT TO PARTICIPATE IN THIS STUDY

I, __________________ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the <insert specific data collection method>.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname………………………………………… (please print)

Participant Signature…………………………………………..Date…………………

Researcher's Name & Surname………………………………………(please print)

Researcher's signature………………………………………..Date…………………

## ANNEXURE E: CONFIDENTIALITY AGREEMENT

CONFIDENTIALITY AGREEMENT WITH RESEARCH THIRD PARTIES

Hereby, I Justin Oluwasegun Rojaye, 60825588, in my personal capacity as a researcher/ coder/ data capturer/ student, collaborating with Dr Robert Netangaheni on research titled “Strategies to Enhance Nurses' Participation in Healthcare Research in the Context of HIV and AIDS Transmission in Nigeria”, acknowledge that I am aware of and familiar with the stipulations and contents of the conditions of ethical clearance specific to this study. I shall conform to and abide by these conditions. Furthermore, I am aware of the sensitivity of the information collected and the need for strict controls to ensure confidentiality obligations associated with the study.

I agree to the privacy and confidentiality of the information that I am granted access to in my duties as a researcher/coder/data capturer/student. I will not disclose nor sell the information that I have been granted permission to gain access to in good faith, to anyone.

I also confirm that I have been briefed by the research team on the protocols and expectations of my behaviour and involvement in the research as a researcher/ coder/ data capturer/ student.

SIGNED:

Date: FEB 01/2022

## ANNEXURE F: DEMOGRAPHICS QUESTIONAIRE

Demographic Questionnaire

Background information (complete before the interview)

1. Sex: Female Male

2. State of origin: Ogun State Oyo State Lagos State Osun State

Others specify--------------

3. What age category are you in (in decades)?

21-30 31 - 40 41 – 50 51- 60 60+

4. What is your highest level of formal education?

Diploma Bachelor’s Master’s Doctorate

Other Specialty training (please specify):

5. Years of service:1- 5 yrs 6–10 yrs 11–15 yrs 16 – 20 yrs

21 years and above

6. Area of specialty: Community Clinical Education Ministry Others specify

## ANNEXURE G: PARTICIPANTS INFORMATION SHEET

PARTICIPANT INFORMATION SHEET
Ethics clearance reference number:
Research permission reference number (if applicable):

May 20/2022

Title: Strategies to Enhance Nurses' Participation in Healthcare Research in the Context of HIV and AIDS Transmission in Nigeria.

Dear Prospective Participant

My name is Justin Oluwasegun Rojaye. I am researching with Dr TR Netangaheni as my Department of Health Studies supervisor towards a Doctor of Philosophy in Nursing at the University of South Africa. We invite you to participate in a study entitled Strategies to Enhance Nurses' Participation in Healthcare Research in the Context of HIV and AIDS Transmission in Nigeria.

WHAT IS THE PURPOSE OF THE STUDY?

This is a study being conducted by Justin Oluwasegun Rojaye as part of the Doctor of Philosophy in Nursing at the University of South Africa. You are invited to participate in this study in your capacity as a Registered Nurse working at one of the hospitals located in Ogun State, Nigeria. The purpose of this study is to examine nurses' active participation in research production within the context of transmission of HIV and AIDS in Ogun State, Nigeria. The ultimate aim is to recommend measures for the effective participation of nurses in HIV and AIDS research. Furthermore, examining their contribution and barriers will facilitate the creation of groups and programs to promote skills and effective participation of nurses in research which will address the burden of nurses' participation in research on HIV and AIDS transmission in Nigeria.
WHY AM I BEING INVITED TO PARTICIPATE?

You were chosen because you are a registered nurse working at Ogun State, Nigeria's hospitals. Your name and contact were provided by the hospital's human resources office, where you are working as a registered nurse.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

You will be requested to answer questions related to the study that the researcher will ask. The questions will not take more than one hour. The answers will be based on your experience or views. Therefore, they do not require any prior preparation.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

Your participation in this study is entirely voluntary. You may choose not to take part in the study. You may decide to withdraw your participation at any time should you choose to participate in the study, and you will not be penalized or lose any benefits which you otherwise qualify for. If you decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without providing a reason.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

This study will not have any monetary benefit to you as a participant. However, your experiences will assist the researcher in making a recommendation for nurses' participation in healthcare research in Nigeria’s context of transmission of HIV and AIDS. In addition, your participation will contribute to the learning process of the researcher.

ARE THERE ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?

There are no known risks associated with your participation in this study. However, you have the right to refuse to answer any question that makes you feel uncomfortable.

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

The information you will share with the researcher will be kept confidential as much as possible. Your name or address is not required. The researcher will lock away the documented interview responses. No individual names or identities will be used in the report. Should an article be written about this study, your identity will be protected to

the maximum extent possible. However, I advise you not to disclose sensitive personal information in the focus group.

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

The researcher will store hard copies of your answers for five years in a locked cupboard/filing cabinet in my house for future research or academic purposes; electronic information will be stored on a password-protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. Suppose there is any need to destroy any information. In that case, it will be destroyed if necessary, such as hard copies will be shredded, and electronic documents will be permanently deleted from the computer's hard drive through the use of a relevant software program.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

There will be no payment or reward offered, financial or otherwise. The researcher is not anticipating any financial burden on all participants; hence, the participant will incur no cost.

HAS THE STUDY RECEIVED ETHICS APPROVAL

This study has received written approval from the Research Ethics Review Committee of the Department of Health Studies' Ethics Committees, University of South Africa. A copy of the approval letter can be obtained from the researcher if you so wish.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

If you would like to be informed of the final research findings, don't hesitate to contact Justin Oluwasegun Rojaye on 60825588@mylife.unisa.ac.za.
Should you require any further information or want to contact the researcher about any aspect of this study, don't hesitate to get in touch with 60825588@mylife.unisa.ac.za.

Should you have concerns about how the research has been conducted, you may contact netantr@unisa.ac.za.

Thank you for taking the time to read this information sheet and for participating in this study.

Thank you.

Justin Oluwasegun Rojaye

## ANNEXURE H: FOCUS GROUP INTERVIEW GUIDE

SECTION A: Demographic Information

1. Participant Number:
2. Personal Information

a. Age_____years

b. Gender (circle what is relevant)Female or Male

c. Highest Level of Education

d. Marital Status

(Circle what is relevant) Single/ Married/ Widowed/ Divorced

e. Years of experience after qualification in Nursing. _____Years.

SECTION B:

The following questions will be used for data collection:

1. What is your view concerning the issue of HIV and AIDS transmission in Nigeria?

2. Please tell me of any current research work to address the issue of HIV and AIDS transmission in Nigeria. Are nurses involved in that work? If yes, in what capacity?

3. Are you personally involved in any research work currently? If yes, in which research field, and in what capacity is your involvement?

3.1 Please tell me about your research participation to address issues relating to transmission of HIV in Nigeria over the past 13years.

4. What are some of the barriers that influence your ability to conduct research?

5. What measures can effectively address barriers influencing nurses' participation in research targeting HIV and Aids transmission in Nigeria?

6. Kindly tell me about your experience in nurses' participation in healthcare research?

7. Are there policies fostering nurses' participation in healthcare research and implementation?

8. What are the workplace, local government, state, or national policies that positively influence your capacity to participate in nursing and healthcare policy formulation?

9. What are some of the barriers that negatively influence your capacity to be involved in nursing and healthcare policy formulation?
10. What are the institutional processes that can effectively address barriers to nurses' participation in healthcare research targeting HIV and AIDS transmission in Nigeria?
11. What are your suggestions on how we can best engage nurses in research participation?
12. What are the strategies that can be used to enhance nurses' participation in research development?

**We have come to the end of the interview. I would like to thank you for your time.**

## ANNEXURE I: IN-DEPTH INTERVIEW GUIDE

Project Title: Strategies to Enhance Nurses' Participation in Healthcare Research in the Context of HIV and AIDS Transmission in Nigeria.

SECTION A: Demographic information

1. Participant Number:

2. Personal Information

a. Age_____years

b. Gender (circle what is relevant)Female or Male

c. Highest level of Education

d. Marital Status

(Circle what is relevant) Single/ Married/Widowed/ Divorced

e. Years of experience after qualification in Nursing.

The following ground rules will apply during our discussion:

- The researcher undertakes to adhere to all the stipulations in your informed consent forms.
- There is no right or wrong answer, but please raise your hand when you ask or answer a question.
- One person will speak at a time to avoid uncoordinated discussions.
- No talking will be allowed while another participant is still answering or asking a question.

SECTION B:

1. What are your thoughts on the subject of HIV and AIDS transmission in Nigeria?
2. What is the level of nurses participating in HIV and AIDS research?
3. What are the types of research fields you have participated?
4. Please tell me about your research participation to address issues relating to the transmission of HIV in Nigeria.
5. What are some of the impediments to your capacity to conduct research?
6. What interventions might successfully remove the obstacles to nurses' engagement in HIV and AIDS research in Nigeria?
7. What measures can be used to effectively involve nurses in healthcare research

We have come to the end of the interview. I would like to thank you for your time

## ANNEXURE J: RESEARCHER ACKNOWLEDGEMENT

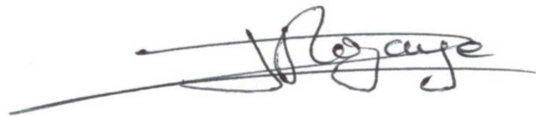
THE COLLEGE OF HUMAN SCIENCES

RESEARCHER ACKNOWLEDGEMENT

Hereby, I (Justin Oluwasegun Rojaye), ID number (60825588), in my personal capacity as a researcher, acknowledge that I am aware of and familiar with the stipulations and contents of the

- Unisa Research Policy
- Unisa Ethics Policy
- Unisa IP Policy
- SOPs on ethical clearance risk assessment

And that I shall conform to and abide by these policy requirements



Date: FEB 01/2022

# ANNEXURE K: PROOF OF LANGUAGE EDITING

**TO WHOM IT MAY CONCERN**

I, the undersigned, hereby confirm my involvement in respect of the language and academic editing, technical compliance, text redaction and research methodology compatibility for the manuscript of **Mr Justin Oluwasegun Rojaye (Student Number: 60825588)** submitted to me as part of his fulfilment of the requirement for the Doctor of Philosophy (PhD) in Nursing Science degree registered with the University of South Africa (UNISA), and entitled:

**Strategies to enhance nurses' participation in healthcare research and policy in the context of HIV and AIDS transmission in Nigeria**

As an independent academic editor, I attest that all possible means have been expended to ensure the final draft of **Mr J.O. Rojaye's** thesis manuscript reflects both acceptable research methodology practices and language control standards expected of postgraduate research studies at his academic level.

In compliance with expected ethical requirements in research, I have further undertaken to keep all aspects of **Mr J.O. Rojaye's** study confidential, and as his own individual initiative.

Sincerely,

TJ Mkhonto
**BA Ed:** North-West University, Mahikeng (1985)
**MEd:** School Administration; University of Massachusetts-at-Boston, USA, Harbor Campus (1987)
**DTech:** Higher Education Curriculum Policy Reform, Design & Management; University of Johannesburg (2008)

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**Signed:**

Dr T.J. Mkhonto
***Independent Academic Editor***

**Date:** 08 May 2023
dd/mm/yyyy

Themba J Mkhonto
Associate Member

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Membership year: February 2023 to March 2024

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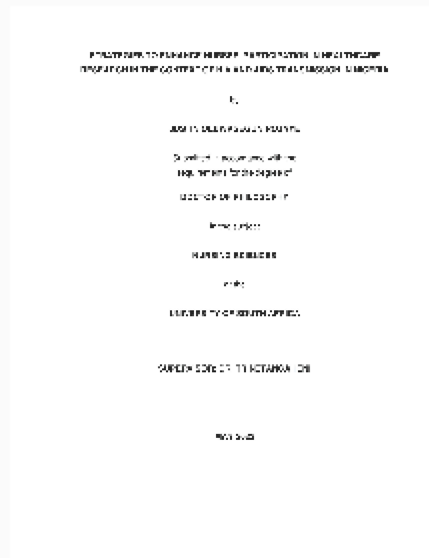

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STRATEGIES TO ENHANCE NURSES' PARTICIPATION IN HEALTHCARE RESEARCH IN THE CONTEXT OF HIV AND AIDS TRANSMISSION IN NIGERIA by JUSTIN OLUWASEGUN ROJAYE Submitted in accordance with the requirements for the degree of DOCTOR OF PHILOSOPHY In the subject NURSING SCIENCES at the UNIVERSITY OF SOUTH AFRICA SUPERVISOR: DR. TR NETANGAHENI MAY 2023 Student Number: 60825588 DECLARATION I, Justin Oluwasegun Rojaye, hereby declare that STRATEGIES TO ENHANCE NURSES' PARTICIPATION IN HEALTHCARE RESEARCH IN THE CONTEXT OF HIV AND AIDS TRANSMISSION IN NIGERIA is my work and that all the sources that I have used or quoted have been indicated and acknowledged using detailed references and that this work has not been submitted before for any other degree at any other institution. Justin Oluwasegun Rojaye Date: May 05, 2023 i DEDICATION "Work hard for what you desire because it will not come to you until you battle for it." You must be strong and bold, and you must believe that you are capable of doing everything you set your mind to. If someone criticises or dismisses you, maintain believing in yourself and turning it into something extraordinary." Leah LaBelle The Almighty God My wife; Florence Abiodun Rojaye, and My children; Augustine Ibidamola Abimbola, Pius Oyinkonsola Abimbola and Esther Moyosolaoluwa Abimbola. ii ACKNOWLEDGEMENTS "No one achieves success without appreciating the assistance of others." The intelligent and self-assured express their thanks for this assistance." Alfred North Whitehead I offer all praise to God for the wonderful things He has done. I couldn't have completed this PhD thesis without Him. I am confident that it is not worth discussing this work without recognising the several key persons whose innumerable and endless efforts have brought this research to a successful finish. My heartfelt gratitude goes to my Lord Jesus Christ for allowing me the grace and mercy to