



# Research Trends in Nursing and Health Care in Low-Resource Countries: Kenya's Example

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## Abstract

The delivery of healthcare and nursing practice are severely hampered in low- resource nations like Kenya by inadequate infrastructure, a lack of workers, and a lack of funding for research. A growing corpus of research addressing creative strategies and context specific solutions has emerged in spite of these obstacles. In Kenya, research in nursing and healthcare has expanded dramatically, tackling important health issues like infectious diseases, non- communicable diseases, maternal and child health, and workforce issues.

Increased scholarly participation, governmental programs, and global partnerships are all responsible for this progress. But persistent obstacles such as a lack of mentorship, inadequate infrastructure, and financial limitations keep getting in the way of new developments. To speed up progress, it is crucial to increase funding for research, improve mentorship programs, use digital technology, and encourage policy involvement. Kenya can improve patient care and public health outcomes by giving priority to these initiatives and advancing its nursing and health care research agenda. It is therefore, essential to comprehend these research trends in order to improve patient outcomes, fortify health systems, and create effective policies.

**Keywords:** Nursing research, Health care trends, Low-Resource settings, Kenya, Health systems strengthening, Community health, Research capacity building, Global health

**Abbreviations:** HIV: Human Immunodeficiency Virus; AIDS: Acquired Immunodeficiency Syndrome; PHC: Primary Health Care; WHO: World Health Organization; KEMRI: Kenya Medical Research Institute; MOH: Ministry of Health (Kenya); SDGs: Sustainable Development Goals; UHC: Universal Health Coverage; LMICs: Low-and Middle-Income Countries; EBP: Evidence-Based Practice; CHWs: Community Health Workers; ICT: Information and Communication Technology; NGO: Non-Governmental Organization; RN: Registered Nurse

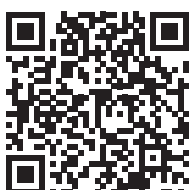
## Introduction

Global healthcare systems are strengthened, patient outcomes are improved, and evidence-based practice is shaped in large part by nursing and healthcare research. The dynamics of nursing and healthcare research in resource- constrained nations like Kenya are impacted by a number of contextual factors, such as financial limitations, a lack of workers, a lack of funding for research, and infrastructure issues. Enhancing knowledge translation, policy formation, and capacity-building in healthcare requires an understanding of nursing and healthcare research trends in these contexts.<sup>1</sup>

Even in environments with limited resources, the nursing and health care research fields have made tremendous strides in their global evolution. A confluence of social, economic, and technological elements that impact nursing practice development and health care delivery have shaped these trends. In order to improve patient outcomes, advance evidence-based practice, and shape policy, health care research is essential. To address systemic issues, optimize resource allocation, and improve health service delivery, nursing and health care research are especially important in resource constrained nations like Kenya.

Kenya has advanced nursing and health research significantly despite financial and infrastructure limitations thanks to

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government programs, academic institutions, and international partnerships. But there are still gaps in research funding, dissemination, and practice translation, which emphasizes the need for creative ways to improve the research environment.

In environments with limited resources, such as Kenya, nursing and health care research are dynamic and ever-evolving fields. Kenya has advanced significantly in nursing and healthcare research over the last few decades.

This article examined new developments in nursing and healthcare research in nations with limited resources, with specific reference to Kenya.

## Materials and Methods

In order to examine nursing and health care research trends in Kenya, this study used a mixed-methods approach. The published literature, policy papers, and research reports from universities, governmental organizations, and international health organizations were all systematically reviewed. Peer-reviewed publications from the past 20 years were sought out using databases like PubMed, CINAHL, and Google Scholar. To learn more about the opportunities and difficulties in the field, key informant interviews with educators, policymakers, and nursing researchers were also carried out. While qualitative data from interviews was thematically analyzed to uncover new trends and obstacles, quantitative data on research output, funding trends, and thematic areas were extracted and examined using descriptive statistics. The review concentrated on topics like implementation science, primary healthcare, community-based interventions, health systems research, and nursing workforce development.

## Results and Discussions

Nursing research has expanded as a result of the creation of postsecondary educational institutions that offer undergraduate and graduate nursing programs.<sup>2</sup> Furthermore, nurses are now more inclined to conduct research aimed at enhancing patient care and healthcare delivery as a result of the implementation of evidence-based practice in clinical settings.<sup>3</sup>

Nursing research is hampered by enduring issues like poor mentorship, a lack of funding for studies, and restricted access to research materials.<sup>4</sup>

Maternal and child health is one of the main topics of nursing research in Kenya. Research has looked into the effectiveness of midwifery-led interventions, neonatal care practices, and factors influencing maternal mortality.<sup>5</sup> Research has been essential in creating interventions to enhance antenatal and postnatal care services because of Kenya's high maternal mortality rate, which stands at 342 deaths per 100,000 live births.<sup>6</sup> With an emphasis on important health priorities, the results show that nursing and

health care research in Kenya has grown considerably. Numerous studies have been conducted on maternal mortality, neonatal care, and child nutrition, which has helped to improve clinical guidelines and change policy. Several studies have also been done on Non-Communicable Diseases including studies on cancer, diabetes, and hypertension, exposing deficiencies in patient education, early detection, and care access. The growing burden of non-communicable diseases (NCDs) in resource-constrained countries has led to increased research on prevention and management strategies. Research efforts are increasingly directed towards understanding the social determinants of NCDs and designing community-based interventions. For instance, lifestyle modification programs aimed at reducing cardiovascular risk factors have shown promising results in low-income communities in Latin America.

The treatment of non-communicable diseases like diabetes, high blood pressure, and cancer is another new area of nursing research. Research has concentrated on community-based interventions, patient education, and preventive measures to enhance disease management and outcomes in light of Kenya's growing NCD burden.<sup>7</sup>

In Kenya, telemedicine and digital health solutions are increasingly being used to manage chronic illnesses.<sup>8</sup>

There have been studies on Infectious Diseases with funding support and international collaborations, there is a robust research presence on HIV/AIDS, TB, and malaria.

In Kenya, research on infectious diseases, such as HIV/AIDS, TB, and malaria, continues to be a top priority. Studies led by nurses have looked at ways to improve infection control practices in medical facilities, increase community health education on infectious disease prevention, and improve adherence to antiretroviral therapy.<sup>9</sup> The significance of nursing research in emergency preparedness and response plans was further brought to light by the COVID-19 pandemic.<sup>10</sup>

Studies have been conducted on Workplace Issues Research such as professional development, workplace safety, and nursing shortages that has emphasized the necessity of legislative measures to support the nursing workforce. Nursing research in resource-limited settings increasingly emphasizes capacity building and professional development. Investments in nursing education, mentorship programs, and leadership training are critical for improving the quality of care. For example, partnerships between universities in high-income countries and those in low-income countries have facilitated knowledge transfer and skills development.

In Kenya, studies on the nursing workforce including retention tactics, job satisfaction, and staffing levels have become more well known. Research shows that inefficient healthcare services are

caused by a lack of nurses, unfavorable working conditions, and the migration of qualified nurses to wealthy nations.<sup>11</sup> Research with a policy focus has shed light on how to improve training programs, support improved working conditions, and bolster nursing leadership.<sup>12</sup> In order to convert research findings into workable policies and practices, cooperation between researchers, legislators, and healthcare professionals is crucial as proposed by Mwenda.<sup>12</sup>

As for Capacity Building and Mentorship Gaps, to assist early career researchers in honing their research techniques and publishing their work, organized mentorship programs are required.<sup>7</sup> To encourage a research culture among nurses, mentorship networks and research training integration into nursing curricula should be established.<sup>11</sup>

Ethical and Regulatory Bureaucratic obstacles and rigorous ethical approval procedures can occasionally cause delays in the implementation of research.<sup>10</sup>

Notwithstanding the advancements, Kenyan nursing and healthcare research still faces a number of obstacles. The breadth and influence of nursing research are limited by the absence of sufficient financial support from both public and private institutions.<sup>2</sup> Financial support for nursing research can be improved by fortifying alliances with foreigners, governmental organizations, and private sector partners.<sup>1</sup>

In terms of Infrastructure and Resource Limitations, research quality and efficiency are impacted by restricted access to labs, databases, and research facilities.<sup>4</sup>

Leveraging Technology for Research including Big data analytics, artificial intelligence, and digital platforms present new avenues for nursing research, particularly in the areas of patient care and epidemiology.<sup>8</sup>

## Conclusion and Recommendations

With studies tackling important health issues like maternal and child health, non-communicable diseases, infectious diseases, and workforce concerns, nursing and healthcare research in Kenya has grown significantly.

Despite advancements, a number of obstacles still exist and progress is still hampered by enduring issues. Infrastructure limitations continue to be major obstacles, including insufficient research facilities and restricted access to high-quality data. Early-career nursing researchers' development has been hampered by a lack of mentorship opportunities. Further, financial constraints have limited locally driven research initiatives by causing a dependence on outside funding.

Prospects for Enhancing Nursing and Medical Research in Kenya is high, but requires a well thought out plan of action to address the issues Kenya can further its nursing and healthcare research agenda and ultimately improve patient care and public health outcomes by

boosting research investment, bolstering mentorship programs, utilizing digital technology, and encouraging policy engagement.

Research in nursing and healthcare is still hampered by a lack of funding, poor infrastructure, and a shortage of qualified staff. To overcome these obstacles, consistent funding, global partnerships, and creative methods to distribution of resources.

Future health outcomes in environments with limited resources could be improved by incorporating AI and machine learning into medical research. Furthermore, tackling complex health issues will require promoting interdisciplinary research and utilizing local knowledge.

According to the findings, Kenya can advance its nursing and health care research agenda by boosting mentorship programs, increasing domestic research investment, using digital health technologies to collect and disseminate data, and improving policy engagement to guarantee that research findings inform practice and improvements to the health system.

There is need for Improving Policy Engagement in order to convert research findings into workable policies and practices, cooperation between researchers, legislators, and healthcare professionals

Kenya is a prime example of how low-resource nations are starting to produce significant nursing and health care research. Sustaining and expanding these initiatives requires investments in research infrastructure, capacity building, and policy engagement. Other low-resource settings looking to improve health systems through evidence-informed nursing practice can benefit greatly from an understanding of these trends.

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## Conflicts of Interest

Regarding the publication of this article, the author declares that he has no conflict of interest.

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