

# Global Journal of Health Science and Research



**Editorial** 

# The importance of qualitative research in the contemporary era

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Received: 31 July 2024 Accepted: 31 July 2024 Published: 26 August 2024

DOI 10.25259/GJHSR\_34\_2024

**Quick Response Code:** 



#### INTRODUCTION

Quantitative and qualitative research is applied to explore various determinants of health. Both research methods are applied independently or combined as per the research problem. Mixed method research using both quantitative and qualitative methods is becoming popular recently. Quantitative research is employed to analyze behaviors objectively using structured methods such as surveys, aiming to predict causal relationships. Qualitative research methods primarily rely on words or images to interpret the meaning of an issue or an event from the participants' point of view; to identify the reasons for the issue or an event; or to explain how an issue or event occurs.[1-3] Descriptive or exploratory is a very commonly used approach, in which the researcher wants to explore or identify what is going on in each situation. "Focuses on information of what, where, when, and why of an event or experience" and "Systematic way to describe a situation, problem, phenomena, service, or program or provides information." Ethnography is an approach to research which emphasizes and seeks to explore the real-life experience of an individual, understand human behavior from the perspective of the individual in each culture, and study of social interactions, behaviors, and perceptions that occur within groups, organizations, and communities. Phenomenology is an approach to research which emphasizes and seeks to explore the real-life experience or lived experiences of an individual about a phenomenon. Interview people who experienced an event to determine how they interpret the event and find the commonalities in the experience or a shared meaning among the participants Grounded theory is an approach to research which aims to collect and analyze qualitative data to develop theory which is "grounded" in the data. Data collection and analysis occur simultaneously. Some of the popularly used method of qualitative research are focus group discussion, face-to-face interviews, and systematic techniques (free listing and pile sorting). [1,2]

Qualitative research is based on interpretive paradigm which has been in the mainstream for decades, and in recent times, there are growing attempts made to use qualitative research methods in various fields. It is used as a standalone method or combined as a mixed-method design. All academic disciplines related to human and social behavior, such as anthropology, sociology, and psychology, now widely employ qualitative research methods.<sup>[4]</sup> Qualitative research has a longstanding presence in the social sciences, offering a valuable array of methodological tools for data collection, analysis, and interpretation. Its effective use is increasingly supported by evidence in various other fields, such as clinical research, public health, health services, and medical education. Over the past years, numerous studies of varying quality have been published, including some in highly reputable medical journals. Research into health services often utilizes

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methodologies from anthropology, such as participant's observations and psychology such as in-depth interviews. The World Health Organization (WHO) has utilized qualitative research to enhance the development of its guidelines, placing a strong emphasis on incorporating the perspectives of endusers and health-care providers.<sup>[6]</sup> Center of Disease Control, Atlanta, has utilized in field epidemiologic investigations by offering insights into the perceptions, values, opinions, and community norms of the population being studied.<sup>[7]</sup> "Building greater insight through qualitative research" a guide developed by National Health Service (NHS), for gaining a deeper understanding of local health-care experiences.<sup>[2]</sup> The main strength of qualitative research is its ability to provide in-depth and rich descriptions of the data studied.[8] Patient engagement, or patient and public involvement in health research, is increasingly becoming a requirement for many health research funders. Qualitative health research, which involves the collection and systematic analysis of nonquantitative data about people's experiences of health, illness, and the health-care system, offers several approaches that can help mitigate these risks.<sup>[9]</sup> For this reason, it is used in global public health when problems cannot be analyzed through traditional quantitative approaches, when "silenced voices" need to be heard, or when sociocultural contexts are crucial for decision-making and problem-solving.<sup>[5]</sup>

Hence, this narrative review is written to emphasise the applicability of qualitative research in the field of heath care, clinical, public health, and medical education.

# QUALITATIVE RESEARCH IN HEALTH CARE AND PUBLIC HEALTH

Qualitative research is increasingly prevalent in contemporary health sciences. It helps to incorporate the perspectives of participants including patients, families, professionals, and managers into the design and development of research, treating them as equal partners.<sup>[10]</sup> Qualitative research can provide information that quantitative research cannot, such as a collection of detailed responses, emotions, and lived experiences from patients and caregivers.[11] Health-care services and delivery, as well as the understanding of health interventions and policy development, have recently gained significant recognition. Some of the examples where the qualitative research has been/can be applied to various subtopics, such as the experiences of patients and caregivers with diseases such as cancer, chronic obstructive pulmonary disease, depression, falls, and dementia. It also encompasses awareness of treatments and compliance for diabetes and hypertension, experiences of physicians and nurses interacting with medical staff, public awareness of vaccination policies, health issues of people in special types of employment like call center workers, etc., and the unmet health-care needs of individuals with vision or hearing impairments.

The constructivist grounded theory approach enables the researcher to build a theoretical model that explains the data. This method involves an ongoing process of deeply analyzing and interpreting the data while considering the surrounding context. This study was carried out to examine how patients experience physical rehabilitation during and after their stay in the intensive care unit (ICU) using constructivist grounded theory. Critical illness is a complex problem and may lead to cognitive losses, mental health issues, and altered physical function. Qualitative research was used to understand the experience of the ICU patients from the critical illness to the recovery phase.[12]

This qualitative study with phenomenological approach was conducted to explore the lived-in experiences of patients on hemodialysis and concluded that these findings will help the nurses to improve the quality of nursing care. [13] A similar study was conducted to explore the lived-in experiences of patients undergoing hip fracture surgery. Interpretative phenomenological approach was used because it explores patients' in-depth responses to their own experiences of frailty after the surgery which helped the clinician to understand the patients' experiences.[14]

In situations when we want to explore a newly launched medical device or a new feature of the present product, the Ethnography approach of qualitative research method is used. Ethnography in health care can involve observing how professionals and patients use a medical device. For example, studying sleep apnea patients' interactions with a continuous positive airway pressure device at home could reveal challenges, setup processes, and daily use.[15]

Clinical trials or randomized controlled trial (RCT), when compared to other research designs, are considered the gold standard. There is a growing integration of qualitative research with randomized controlled trials (RCTs). This combination is valuable because it helps assess the acceptability and suitability of interventions from the perspectives of clinical staff and patients, providing a more comprehensive evaluation of clinical trials.<sup>[16]</sup> They help identify recruitment barriers, enhance informed consent, and document processes essential for replicability and implementation across sites and patient groups, which in turn informs outcome interpretation.[17]

Qualitative research in public health can strengthen conversations with traditional research approaches by deepening the understanding of interconnected factors. Examining social determinants and health disparities necessitates that epidemiologists and public health researchers broaden their theoretical frameworks and research methods and engage all relevant stakeholders. The viewpoints of individuals utilizing public health services often differ from those of professionals, clinicians, or academics. Qualitative research provides insights into how people perceive and

react to public health policies, integrating both academic and experiential knowledge. [5] The WHO made the guideline decision-making process more transparent by utilizing qualitative evidence synthesis. This approach highlighted that stakeholder perspectives and experiences are internal to the decision-making process.<sup>[18]</sup> The qualitative research can play a lead role in the epidemiologic investigations because the qualitative research can provide the help in exploring the factors and rationale for risk behavior that the structured questionnaire can elicit. The qualitative research was effectively used during the outbreak of Ebola virus in West Africa to explore the burial practices to design appropriate strategies to ensure safe burial.[19]

# QUALITATIVE RESEARCH APPLIED TO **MEDICAL EDUCATION**

Qualitative research is experiencing a resurgence, shedding its past reputation as less valuable compared to quantitative methods. It is now gaining prominence in health professions education, becoming a focal point of study. [20] Qualitative research helps in understanding the in-depth responses of "why" or "how" the phenomenon of interest. Medical educators investigate phenomena such as behaviors, attitudes, interactions, theoretical models, learning environments, and professionalism, which are not always fully graspable through quantitative data alone. [21,22] The research questions to measure these phenomena could be effectively answered through qualitative research and used as standalone or mixed method. However, a careful selection of methods ensures alignment between research objectives and outcomes, ensuring the findings contribute meaningfully to educational scholarship.<sup>[8]</sup> Some of the examples of qualitative research are "How are the decisions made in problem-based learning groups," "How do team members learn from each other when they confront new situations," and What do student think about self-directed learning experience."[23] In one of our studies, we used in-depth interview and focus group discussion (FGD) to challenges faced in implementation of competency-based medical education (CBME) in Phase I of undergraduate medical curriculum.<sup>[24]</sup> In another study, we used free listing and pile sorting method was used to evaluate the implementation of the student-driven approach in community-based active case funding of tuberculosis.<sup>[25]</sup> In one of the studies, we triangulated qualitative methods such as "Nominal Techniques" and "Free listing" for developing and assessing the effectiveness of self-directed learning module.[26] In a study conducted by Venkatesan et al., FGD was used to explore the learners' perception on patient-centric interactive e-module in pathology.<sup>[27]</sup> In Iran, a qualitative study was conducted to understand the deeper aspects of "Outpatient Education" from the perceptions of medical students, faculties, and residents.[28] Teaching and learning

of "Empathic communication" an essential competency take place as "hidden curriculum" in medical education and hard to measure. Laughey et al. adopted qualitative method using one-to-one semi-structured interviews to explore the views of empathy learning from students and tutors. [29] "Assessment drives learning" this quote emphasis the role of assessment in learning. The National Medical Commission's (NMC) Competency Based Medical Education (CBME) curriculum includes various formative and summative assessment methods.[30] Understanding the impact of these assessments on learners can be challenging, but qualitative research helps provide deeper insights into their effects. Moghaddam et al. employed constructivist grounded theory approach of qualitative research to develop a model to measure the impact of assessment in the students learning.[31]

#### **CONCLUSION**

Qualitative research can be successfully applied across various domains, including clinical research, health-care research, policy development, evaluation of health program, or medical educational programs. Increasing sincerity to scientifically rigorous qualitative studies in these disciplines will create valuable learning opportunities and improvement our understanding of qualitative evidence. Hence, applying qualitative research in the contemporary era will benefit in strengthening the existing research.

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How to cite this article: Ganapathy K. The importance of qualitative research in the contemporary era. Glob J Health Sci Res. 2024;2:59-62. doi: 10.25259/GJHSR 34 2024