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Clarifying the Conceptual Divide Between Descriptive Research and Qualitative Inquiry in Health Sciences

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ASBTRACT
The persistent conflation between descriptive research and qualitative research remains a recurring methodological problem in health-science publications, particularly in manuscripts submitted to Health Notions. This conceptual ambiguity undermines the rigor of study design and weakens the interpretive value of research findings. The objective of this editorial is to clarify the epistemological and methodological distinctions between descriptive research and qualitative inquiry, while illustrating their implications through examples drawn from public health and clinical practice. Using a conceptual-analytic approach, this article examines the philosophical foundations, research logic, and practical applications of both approaches. The analysis shows that descriptive research, rooted in the quantitative paradigm, focuses on mapping the distribution of health variables; such as the prevalence of hypertension, maternal anemia, or tuberculosis treatment default without explaining the contextual or experiential dimensions underlying these patterns. In contrast, qualitative research seeks to interpret meaning, explore lived experiences, and uncover cultural, social, and behavioral factors that shape health phenomena, such as patients' fears of medication, stigma surrounding tuberculosis, or cultural taboos influencing maternal nutrition. The findings emphasize that misunderstanding these distinctions leads to methodological misalignment, weak theoretical contribution, and incomplete evidence for policy and practice. The editorial concludes that descriptive and qualitative research are not interchangeable but complementary, and that methodological clarity is essential for producing robust, contextually grounded health evidence. Strengthening this conceptual distinction will enhance the quality of manuscripts submitted to Health Notions and support more effective health-system decision-making.
Keywords: descriptive research; qualitative research; methodology; health sciences; research approach

DESCRIPTIVE RESEARCH: QUANTIFYING PATTERNS AND MAPPING POPULATION REALITIES
Descriptive research occupies a central position in the quantitative tradition, serving as a systematic effort to map the contours of health phenomena through numerical representation [1-4]. Its primary purpose is to document what is happening within a population, how frequently it occurs, and how characteristics are distributed across demographic or clinical groups. In many public health studies, descriptive research becomes the first essential step in understanding the magnitude of a problem [5]. For instance, when researchers conduct a large-scale survey to determine the prevalence of hypertension among adults aged forty to sixty in East Java, the resulting data; percentages, means, and cross-tabulations form the backbone of descriptive inquiry. The findings may reveal that hypertension is more common among men, or that urban residents exhibit higher blood pressure levels than those in rural areas. These patterns are invaluable for policymakers and health planners because they provide a clear epidemiological snapshot that can guide resource allocation, early detection strategies, and health promotion initiatives.

However, descriptive research remains limited to the surface of the phenomenon it seeks to portray. It can tell us that thirty percent of pregnant women in a particular district experience anemia, but it cannot explain why this condition persists despite ongoing supplementation programs. It can show that tuberculosis treatment default rates are higher in certain regions, but it cannot illuminate the social, cultural, or psychological forces that drive patients to discontinue therapy. In this sense, descriptive research offers breadth but not depth; it maps the terrain but does not reveal the pathways that shape human behavior within that terrain. Its strength lies in its ability to quantify, summarize, and present patterns, yet it cannot uncover the meanings, motivations, or contextual complexities that influence those patterns.

QUALITATIVE RESEARCH: INTERPRETING MEANING, CONTEXT, AND HUMAN EXPERIENCE
Qualitative research, by contrast, is grounded in interpretivist and constructivist epistemologies that seek to understand how individuals experience, interpret, and give meaning to health and illness [6,7]. Rather than counting or measuring, qualitative inquiry aims to explore the subjective dimensions of human life—dimensions that cannot be reduced to numerical categories without losing their richness [8]. When researchers sit with hypertensive patients and listen to their narratives about why they discontinue medication, they enter a different epistemic space. Through in-depth interviews, they may discover that some patients fear long-term dependence on antihypertensive drugs, while others believe that herbal remedies are safer or more culturally acceptable. Still others may express mistrust toward health workers or describe financial constraints that make regular medication difficult to sustain. These insights are not merely supplementary details; they fundamentally reshape our understanding of the phenomenon [9-11].

The same applies to maternal anemia. While descriptive data may show high prevalence rates, qualitative inquiry can reveal that pregnant women avoid iron supplements because they believe the tablets cause the baby to grow too large, making childbirth more difficult. Others may avoid iron-rich foods due to cultural taboos or misconceptions passed down through generations. These findings highlight the importance of cultural beliefs, social norms, and personal experiences—factors that cannot be captured through structured questionnaires alone. Qualitative research thus provides depth, nuance, and interpretive richness, offering explanations rather than mere descriptions. It uncovers the human stories behind the numbers, revealing the lived realities that shape health behavior and influence health outcomes.

WHY THE DISTINCTION MATTERS: IMPLICATIONS FOR HEALTH RESEARCH QUALITY
The persistent confusion between descriptive and qualitative research is not a trivial matter [12]. It has significant implications for the quality of health research and the credibility of the evidence produced. When authors label a study as qualitative simply because it lacks inferential statistics, they overlook the methodological rigor required for true qualitative inquiry. A study that merely reports how many participants mentioned a particular theme is not qualitative; it is a numerical summary of textual data. Conversely, when interview-based studies are presented as

descriptive because the authors are unsure how to analyze narrative data, the interpretive depth expected of qualitative research is lost. This methodological ambiguity creates challenges for peer reviewers, who must evaluate manuscripts that lack epistemological coherence. It also weakens the theoretical contribution of the research, as descriptive studies are not designed to generate theory, while qualitative studies often are.

The consequences extend to policy and practice. Public health interventions require both the breadth of descriptive data and the depth of qualitative insight [13-16]. Without clear methodological distinctions, interventions risk being based on incomplete or misinterpreted evidence. For example, knowing that only forty-five percent of diabetic patients adhere to medication is insufficient for designing effective interventions. Understanding why they fail to adhere; whether due to fear of hypoglycemia, financial constraints, cultural beliefs, or lack of family support is essential for crafting solutions that are both effective and culturally appropriate. Similarly, knowing that tuberculosis treatment default rates are high does not help unless we understand the stigma, transportation barriers, or social pressures that patients face.

COMPLEMENTARITY: WHEN DESCRIPTIVE AND QUALITATIVE APPROACHES WORK TOGETHER

Rather than viewing descriptive and qualitative research as competing approaches, health researchers should embrace their complementarity. Descriptive research provides the epidemiological landscape, while qualitative research illuminates the human experiences within that landscape [17]. When used together, they offer a holistic understanding that neither approach can achieve alone. In the context of maternal health, descriptive data may reveal high rates of anemia [18-20], while qualitative insights uncover the cultural beliefs and economic constraints that sustain the problem [21-24]. In diabetes management, descriptive statistics may show low adherence rates [25], while qualitative narratives reveal the emotional, social, and cultural dimensions that shape patient behavior [26].

This complementarity is particularly important in health systems research, where understanding both the structural patterns and the lived experiences of patients and providers is essential for designing interventions that are effective, equitable, and sustainable. Mixed-methods research, when conducted with methodological clarity, exemplifies this synergy by integrating numerical patterns with interpretive insights, thereby producing evidence that is both comprehensive and contextually grounded.

CONCLUSION

The distinction between descriptive and qualitative research is not merely technical; it reflects fundamentally different ways of knowing. Descriptive research maps the epidemiological terrain, while qualitative research reveals the human stories that give meaning to that terrain. For authors submitting to Health Notions, recognizing this distinction is a scholarly responsibility that ensures methodological integrity, enhances the interpretive value of findings, and strengthens the contribution of health research to policy and practice. As health challenges grow more complex, the future of health research will depend on our ability to integrate precise quantification with deep contextual understanding—a balance that begins with a clear appreciation of the differences between descriptive and qualitative inquiry.

Ethical consideration, competing interest and source of funding

-As this article is an editorial and does not involve primary data collection from human or animal participants, ethical approval was not required.
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