

# The Need and Significance of Qualitative Research in Dentistry

Dr. Sirjana Dahal<sup>1</sup>

<sup>1</sup>Department of Community Dentistry, Maharajgunj Medical Campus, Maharajgunj, Kathmandu, Nepal

Correspondence :

Dr. Sirjana Dahal. Email: sirjanadahal11@gmail.com

Research on health and health services have grown steadily in Nepal over the past few decades, with a large portion of expansion being attributed to quantitative research approaches.<sup>1</sup> Majority of dental research have been carried out using quantitative methods. On literature search, we come across a large number of such studies dealing with data and statistics where results are expressed through numerical data in the form of tables or graphs. However, some of the phenomena expressing experiences, perspectives, attitudes, behaviours and characteristics can be challenging to quantify accurately. To uncover such evidence, the use of a qualitative approach may be useful. It allows participants to describe how, why, or what they were feeling, thinking, and experiencing at a particular moment or during an event of interest.<sup>2</sup> Qualitative research is defined as "empirical research where data are not in the form of numbers."<sup>3</sup>

Depending on their research objectives, investigators can use either a qualitative or quantitative method to generate evidence. Qualitative research is inductive in nature that seeks to create theories, patterns, themes, and hypotheses as well as fresh information and insights. On the other hand, quantitative research being deductive, examines the validity of facts, makes estimates about relationships, predicts results, and either controls, describes, or proves hypothesis. Qualitative research can be used either independently or in conjunction with quantitative research method to improve our understanding of the world. In addition to helping researchers generate hypotheses that can be more rigorously tested with quantitative research, qualitative approach employs techniques like focus groups, participant observation, and both structured and unstructured interviews to help researchers understand the

meaning and implications of the quantitative research numbers. Researchers can better appreciate what is happening through qualitative research approach when things are difficult to categorise.<sup>4</sup> Qualitative studies typically answer to open-ended, evolving, and non-directional research questions.

It is possible to obtain a comprehensive understanding of any phenomenon under consideration and identify appropriate solutions by comprehending and applying qualitative research in clinical dentistry. From the perspective of the patient, it also provides insight into how successful the treatment is. To improve patient care and develop literature, qualitative research is becoming an essential tool in clinical dentistry research.<sup>5</sup> Qualitative study design has gained popularity in dentistry in recent years due to its ability to reveal insights that quantitative research is unable to capture. Relationships between dental teams and practitioners, or between dental staff and patients receiving care, may be the subject of the insights. Long-term observations and in-depth interviews can improve the quality of the results by examining these social interactions. Researchers must pay close attention to the significance that participants ascribed to their experiences in order to gain a deeper level of understanding. Additionally, qualitative research is suitable for investigating people's opinions about new policies, management, or practices. Methodically observing and recording

## Citation

Dahal S. The need and significance of qualitative research in dentistry. *J Nepal Dent Assoc.* 2023 Jan-Jun;23(36):1-2.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution CC BY 4.0 Licence.

© 2023 JNDA | Published by Nepal Dental Association

participants in their natural environment, researchers can gain new insights or important information. Qualitative research in dentistry can serve four potential functions: generative, explanatory, evaluative, and contextual. These four roles can be applied at various phases of the dental research process.<sup>6</sup>

One of the most popular study designs in dental qualitative research is ethnography, that focusses on how individuals interact with their social environment. In this design, interviews, field notes, and participant observations can be used. Phenomenological study design investigates how particular people, including those who have a particular illness or condition, describe their life experiences within a particular context. Action research's methodology encourages co-operation between participants and researchers as well as capacity building and development for each individual participant. A life history is a type of study design in which a participant's life is captured throughout time in order to record experiences in chronological order. Lastly, grounded theory approach refers to a qualitative research design that employs a methodical series of steps to formulate a theory regarding phenomena.<sup>7</sup> Based on their relevance, any of these approaches can be used to generate evidence regarding different aspects of dentistry.

Purposive sampling is the most reliable sampling technique in qualitative research. Study participants are specifically chosen to highlight their unique

qualities that are pertinent to the subject of study. The theoretical saturation of a study determines the relatively small sample size in qualitative research. Analysis can be done through inductive (thematic analysis) and deductive (framework analysis) methods. Researchers must select an appropriate data analysis technique based on the type of data they have and their research questions. The deductive method is usually applied in studies where the investigator has a preconceived framework for data analysis. As opposed to the preset framework, the inductive approach extracts the thematic framework from actual data that has been collected. In qualitative dental research, thematic analysis is the most frequently used approach.<sup>6</sup>

Qualitative research methodologies continue to be highly effective in discerning individuals' ideas, emotions, attitudes, opinions, and preferences. They differ from quantitative approaches in both philosophical and practical ways, but they can also be used in conjunction with them. They have the ability to write distinctive, in-depth, sensitive stories that can help advance our knowledge and comprehension of a wide range of topics relevant to dentistry. However, it is crucial that researchers utilising these techniques have the necessary training and experience to ensure that qualitative studies are productive and methodologically sound.

**Conflict of interest:** None.



## REFERENCES

1. van Teijlingen E, Simkhada B, Porter M, Simkhada P, Pitchforth E, Bhatta P. Qualitative research and its place in health research in Nepal. *Kathmandu Univ Med J.* 2011;9(4):301-5. [[PubMed](#) | [Full Text](#) | [DOI](#)]
2. Tenny S, Brannan JM, Brannan GD. *Qualitative study.* 2022. Treasure Island (FL): StatPearls Publishing. [[Full Text](#)]
3. Punch KF. *Qualitative research: Overview, design, and grounded theory.* Introduction to social research: Quantitative and qualitative approaches. 1998. London: Sage. [[Full Text](#)]
4. Grosseohme DH. Overview of qualitative research. *J Health Care Chaplain.* 2014;20(3):109-22. [[PubMed](#) | [Full Text](#) | [DOI](#)]
5. Deshpande S. Qualitative research and its implications in dentistry. *J Adv Dent Pract Res.* 2022;1:45. [[Full Text](#)]
6. Chai HH, Gao SS, Chen KJ, Duangthip D, Lo EC, Chu CH. A concise review on qualitative research in dentistry. *Int J Environ Res Public Health.* 2021 Feb;18(3):942. [[PubMed](#) | [Full Text](#) | [DOI](#)]
7. Baghlaf K. Necessity and relevance of qualitative research in paediatric dentistry. A literature review. *Saudi Dent J.* 2023 Jan 1;35(1):31-8. [[PubMed](#) | [Full Text](#) | [DOI](#)]