

Qualitative research in paediatric dentistry: Its importance and relevance

Morya Malik

Malik M. Qualitative research in paediatric dentistry: its importance and relevance. 2023; 7(1):1-3.

ABSTRACT

The paediatric dentistry, as well as a brief summary of the most crucial details a paediatric dentist needs to know before beginning a qualitative study. For this review, the studies were found using a number of keywords. Parents and dentists have been the subjects of thirty-three research using qualitative techniques in paediatric dentistry. The perceptions of mothers and their children are investigated, as well as how they behave in various paediatric dentistry-

related situations, using qualitative studies. Credibility, the impact of others on children's opinions, and differences that affect children's behavior while performing the study are all obstacles to conducting qualitative investigations with children.

Key Words: *Cardiac rehabilitation; Core components; Guidelines; Heart valve surgery; Heart valve replacement*

INTRODUCTION

Paediatric dentistry is a specialty that necessitates knowledge of the conceptual underpinnings of young children's dental health and disease development. As dental caries should be understood within a family social framework, dental health professionals should be involved in the community. A paediatric dentist's success is based on more than just treating children and completing operations. Understanding a child's growth as well as the physical, cognitive, and social aspects of their future dental health is crucial. Understanding the social and cultural influences on children's health and behavior is important for paediatric dentists. Understanding parental traits and behaviours can also have an impact on how tooth decay develops in kids [1]. The most important socioeconomic factors influencing the development of dental caries in children's mouths are the parents' education, income, and ethnicity. The contemporary push towards evidence-based dentistry has mostly been responsible for the quantitative aspect of the research in paediatric dentistry. There aren't many published qualitative research on paediatric dentistry and dental public health. Dentists typically lack experience with qualitative research, are less confident in its validity, and have a strong positivist background. This review's objective is to comprehend the value and importance of qualitative research in paediatric dentistry. Paediatric dentistry, qualitative study, mixed-methods study, focus group discussion, interviews, observations, children's oral

health, dental caries, dental fear, protective stabilization, restraint, early childhood caries, and paediatric dentists were some of the keywords used to identify the studies for this review. Water molecules adhere to the material's surface before being further absorbed into the denture base's body through porosity and diffusion into intermolecular gaps [2]. According to studies, water sorption adheres to Fick's law of diffusion, which is based on molecules moving from a high concentration to a low concentration. The density of the polymer network, the likelihood of hydrogen bonding, and the rate at which polar interactions can occur all affect how much and how quickly the material sorbs [3,4]. Water molecules fill the intermolecular spaces between the polymer chains as they permeate into the PMMA material's molecular structure. PMMA materials have weak secondary bonds, which makes it possible for water molecules to pull the polymer chains apart and cause the polymerized material to expand. Due to the small amount of open space available for water molecules to occupy inside the network's structure, polymers with a high cross-linking density have shown lower sorption values [5]. Water is sorbing into the PMMA structure in alternate directions. When a material is exposed to a dry, open atmosphere, it permits water to escape from its structure and experiences contraction. Internal tensions are created in the material as a result of this ongoing dimensional shift and the instability brought on by constant expansion and contraction, which may cause the denture to crack and

Department of Biotechnology, IBST, Shri Ramswaroop Memorial University, Lucknow, UP, India

Correspondence: Morya Malik, Department of Biotechnology, IBST, Shri Ramswaroop Memorial University, Lucknow, UP, India, E-mail: ankit_p@gmail.com

Received: 02 Jan, 2023, Manuscript No. puldcr-23-6322, Editor assigned: 04 Jan, 2023, Pre QC No. puldcr-23-6322 (PQ), Reviewed: 18 Jan, 2023, QC No. puldcr-23-6322 (Q), Revised: 21 Jan, 2023, Manuscript No. puldcr-23-6322 (R), Published: 24 Jan, 2023, DOI: 10.37532. puldcr-23.7.1.1-3.



This open-access article is distributed under the terms of the Creative Commons Attribution Non-Commercial License (CC BY-NC) (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits reuse, distribution and reproduction of the article, provided that the original work is properly cited and the reuse is restricted to noncommercial purposes. For commercial reuse, contact reprints@pulsus.com

craze. Dimensional instability may cause the development of surface fissures, which can serve as places of entry or adhesion for different bacteria, yeasts, and moulds. The plasticization of the denture base due to the interaction of water molecules with the PMMA polymer chains may also have an impact on the material's mechanical properties by lowering its hardness, fatigue limit, and transverse strength.

Many qualitative techniques that can be applied The biocompatibility of the prosthesis is directly impacted by the A variety of study designs, such as ethnography, phenomenological study designs, and life histories, can be employed in qualitative studies. Grounded theory and Belief action research. An ethnographic study simply examines how people interact with their social surroundings, making it one of the most popular study designs in qualitative research. This kind of research methodology is used to demonstrate how people behave in different cultural contexts [6-8]. The design of an ethnographic study may incorporate participant observations, field notes, and interviews. An illustration of an ethnographic study design in pediatric dentistry is a mixed study that contrasts the choices made for school meals and the contents of packed lunches among kids with various sugar consumption in two different school settings. According to the results of this study, children's lunchtime decisions are influenced by their family environment. The purpose of a phenomenological study design is to investigate the experiences of distinctive individuals within a particular setting, including those who have a particular ailment or sickness, and how they describe their lived experience. An investigation into the lived experiences of teenage girls with cleft lip and palate would be a wonderful example of a phenomenological study design in pediatric dentistry. A life history research design records a participant's life over the course of their life to record chronological experiences over time. With the purpose of building trust, this kind of study design concentrates on an emic perspective and frequently uses many interviews. It can be utilized in pediatric dentistry to comprehend parents' and kids' attitudes and conduct. For instance, a qualitative investigation could record parents' experiences in the social setting of poverty. With a life course perspective, this study seeks to understand the dental care choices made by low-income parents for their kids as well as to identify trends in the underuse of free dental services by low-income parents.

Choosing samples for qualitative research

Non-probability (purposive) sampling is frequently chosen in qualitative investigations in a deliberate manner based on the research topics. Typically, the research team's specified criteria are used to guide the purposeful sampling process. Maximum variation, extreme, typical case, critical case, criterion, snowball, theoretical or concept sampling, and opportunistic sampling method are a few examples of purposive sampling techniques that can be applied. Yet, because there will be a component of self-selection in research based on qualitative sampling, utilizing purposive sampling can result in a bias risk. The researcher must take into account a number of factors when choosing subjects for qualitative studies, including choosing individuals who are informed about the research issue, able to represent a variety of opinions, and willing to engage. Recruitment continues until no new themes or pertinent information emerges from the data collection, at which point data analysis and data

gathering cease. The nature and scope of the study, the study's design, the population's heterogeneity, the quality of the data, and the techniques of data collecting can all have an impact on the sample size of qualitative investigations. Researcher fresh study ideas involving qualitative design or mixed methods design might be helped by understanding social aspects impacting oral health in paediatric dentistry specialty. Parent-child interactions, in which parents give their kids the experiences they need to reach developmental milestones, have a significant impact on healthy child development. research component Qualitative Analysis Quantitative Analysis the Strategy Deductive approach, in which hypotheses are provided prior to the inquiry, differs from inductive approach in which they are created during research research issues Investigate, enumerate, evaluate, identify, and produce Comparing, causing, and associating common objective to come up with an idea testing a hypothesis data gathering unstructured, open-ended logical answer Sample is deliberately chosen. The sample is chosen to reflect the population. Number of samples.

DISCUSSION

Credibility in qualitative research is crucial to determining how reliable a research approach is. Results that are trustworthy and believable are considered to be credible. In qualitative research, it is regarded as a key requirement for the synthesis of validity. Secondly, while research suggests that toddlers can verbalize their own ideas by the age of five, certain kids may have a range of cognitive and communicative abilities. According to Piaget's theory, due to the period of their linguistic development, children between the ages of four and a few years present the most difficulty in engaging in conversation. The researcher is in charge of adapting the topic guide for the various age groups of children.

CONCLUSION

The majority of dental research for children is quantitative. Using qualitative research techniques typically depends on the objectives of the study and the nature of the research questions. In pediatric dentistry, a qualitative study design can be utilized to investigate mothers' and kids' perceptions and to comprehend their behavior in various contexts. Yet, little is known about performing qualitative research with kids because of issues with credibility, how other people's ideas affect kids' opinions, and how different things affect how kids act in focus groups.

REFERENCES

1. Nandal S, Ghalaut P, Shekhawat H, et al. New era in denture base Resins: a review. *Dent J Adv Stud.* 2013;1(3):136-43.
2. Anusavice KJ, Shen C, Rawls HR. *Phillips' Science of Dental Materials.* Elsevier Health Sci. 2012;27.
3. Sakaguchi RL, Powers JM. Testing of dental materials and biomechanics. *Craig's Restor. Dent. Mater.* 2012;5:81-5.
4. Ferracane JL. Hygroscopic and hydrolytic effects in

- dental polymer networks. *Dent Mater.* 2006;22(3):211-22.
5. Rahal JS, Mesquita MF, Henriques GEP, et al. Influence of chemical and mechanical polishing on water sorption and solubility of denture base acrylic resins. *Braz Dent J.* 2004;15(3):225-30.
 6. Kedjarune U, Charoenworarluk N, Koontongkaew S. Release of methyl methacrylate from heat-cured and autopolymerized resins: cytotoxicity testing related to residual monomer. *Aust Dent J.* 1999;44(1):25-30.
 7. Kostić M, Stanojević J, Tačić A, et al. Determination of residual monomer content in dental acrylic polymers and effect after tissues implantation. *Biotechnol Biotechnol Equip.* 2020;34(1):254-63.
 8. Ouellette RJ, Rawn JD. *Organic chemistry study guide: Key Concepts, Problems, and Solutions.* Elsevier, 2014;588.