



Phenomenological Studies and its application in Dental Research

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ABSTRACT

Research in Dentistry encompasses ingenious effort embarked upon in a methodical way to enhance the stock of information including understanding of man, culture and society, and the use of this information to devise new applications in dental well being of individual or society. Qualitative research, much like what a dentist does in an office visit, can seem intuitive and almost common sense in nature. Yet behind that research, when it is done well, lie years of training and practice, rules of evidence, guidelines for rigor, and various sub-specializations in its pursuit. Phenomenological research is a form of qualitative research which uses a person's perception of the meaning of an event. By looking at multiple perspectives of the same situation of a community, a researcher can make generalizations of the experience. This is a method of research rarely used in the Dental investigative stream. Hence this review was conducted to evaluate the probability and prospect of Phenomenological studies in Dental research.

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Introduction

Research in Dentistry comprises creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this information to devise new applications in dental well being of individual or society. It is used to establish or confirm facts, reaffirm the results of previous work, solve new or existing problems, support theorems, or develop new theories. A research project also serve as an expansion on past work in the field. The primary purposes of basic research are documentation, discovery, interpretation, or the research and development of methods and structures for the advancement of human knowledge.

Dental Research can be either Quantitative or Qualitative. Quantitative research involves measurements and observations objectively, using post positive claims for developing knowledge, employs strategies of inquiry such as experiments and surveys, and collect data on predetermined instruments that yield statistical data.² Qualitative Research can be defined as a type of scientific research that attempts to bridge the gap of incomplete information, systematically collects evidence, produces findings and there by pursue answer to a problem or question. It is a system of inquiry which seeks to build a holistic, largely narrative, description to inform the researcher's understanding of a social or cultural phenomenon.^{3,4}

Phenomenological study is a form of Qualitative research design. It originates from the academic disciplines of philosophy and psychology. In its broadest sense, phenomenology refers to a person's perception of the meaning of an event, as opposed to the event as it exists externally to that person multiple perspectives of the same situation; a researcher can make generalizations of the experience. This method scrutinizes experiences of individuals through accounts endowed by people involved. It attempts to

understand people's perspectives, perceptions and understanding of a particular phenomenon. This is a method of research rarely used in the Dental investigative stream. Hence the aim of this review was to appraise the probability and prospect of phenomenological studies in Dental research.

Materials and Method

This study aimed to review Phenomenological research methods and designs and its application in Dental research published in the literature between 1980 and 2015.

Four electronic data base like Pubmed, Ebscohost, Science Direct and Directory of open access journals (DOAJ) were used for the initial search. The initial research also included reference lists from relevant articles retrieved from electronic data base. Search strategy used standard key words (text words) for retrieving the publications.

Inclusion criteria included those based on the relevance of the study objectives, publications were selected from the search results, theoretical and descriptive papers were included and publications with valid and reliable information related to Phenomenological research methods and published in English language. Exclusion criteria included case reports, editorials and short communications not relevant to the study objectives. Application of broad based inclusion criteria gave the final number of articles.

Table 1. Distribution of Total number of Articles

Articles	Number
Original Articles	11
Review Articles/ Textbook/ Dissertation	4
News Letters	2
Total	17

Phenomenological Studies

Phenomenology comes from the academic disciplines of philosophy and psychology, and it is based upon the work of the 20th century developed by Heidegger.

In its broadest sense, 'phenomenology' refers to a person's perception of the meaning of an event, as opposed to the event as it exists externally to that person.^{5,6}

The focus of phenomenological inquiry is what people experience in regard to some phenomenon or other and how they interpret those experiences. A phenomenological research study is a study that attempts to understand people's perceptions, perspectives and understandings of a particular situation (or phenomenon). In other words, a phenomenological research study tries to answer the question 'What is it like to experience such and such?'. By looking at multiple perspectives of the same situation, a researcher can start to make some generalisations of what something is like as an experience from the 'insider's' perspective.^{7,8}

The intention of phenomenology is the direct investigation and description of phenomena as consciously experienced, without theories about their causal explanations or their objective reality. It therefore seeks to understand how people construct meaning.⁹

Main characteristics of phenomenology

There are several main characteristics that help to define what exactly phenomenology is. In this method, the main idea is the direct investigation and description of phenomena as they are consciously experienced, without theories about causal explanations or the objective reality. It seeks to understand how people construct meaning.¹⁰ It investigates experiences as they are lived by those experiencing them and the meaning attached to them by the people experiencing the phenomena. Critical truths about reality that are grounded in peoples lived experiences which include lived space, body, time and human relations are expressed through this method. (Van Manen, 1990)

This method involves in-depth conversations where the researcher and the informant play a co-participant role. Phenomenology is basically person-centred rather than being concerned with social processes, cultures or traditions.¹¹

Methodology

A phenomenological study often involves the four steps of:

Bracketing: Bracketing is the process of identifying and holding in abeyance and preconceived beliefs and opinions that a person may have regarding the phenomenon that is being researched. The researcher "brackets out" the world and any presuppositions that the person may have in an effort to understand the data in as pure a form as possible. This is the main component of phenomenological reduction (isolation of a new phenomenon from a phenomenon that is already known).

Intuiting: Intuition occurs when the researcher remains open to the meaning attributed to the phenomenon by those who have experienced it. It results in common understanding of the phenomenon being studied. It requires that the researcher creatively varies the data until such an understanding is achieved. Intuiting requires the total immersion of the researcher in the study phenomenon.

Analysing: Analysis involves processes which include coding, categorising and making nous of the essential meanings of the phenomenon. As the researcher works with the rich descriptive data, common essences begin to emerge. This stage ensures a pure and thorough description of the phenomenon.

Describing: At the descriptive stage, the researcher understands and defines the phenomenon. This step aims to

communicate and offer distinct, critical description in written or verbal form.

Sampling: Small samples (probably no more than 10 participants) are most suitable for this type of research. Large samples can become unwieldy.

Data collection methods: Usually very open questions need to be asked. The data collection tools that are most often used are Interviews/speech, Diaries/written, Drawings/non-verbal and/or Observation/visual.

The phenomenological research aspires pure self-expression, with non-interference from the researcher. This means there must be no 'leading questions', as well as the researcher completing the process of bracketing so that they can be aware of their own ideas and prejudices about the phenomenon of interest.

The phenomenological approach is especially useful when a phenomenon of interest has been poorly defined or conceptualised - or was not aware of being existent.

The topics appropriate to phenomenology are ones that are fundamental to the life experiences of humans, e.g. the meaning of health/stress, the experience of bereavement and the quality of life with a chronic illness.¹²

Advantages of Phenomenology

Phenomenology provides for:

- In-depth understanding of individual phenomena;
- Rich data from the experiences of individuals.¹³

Disadvantages of Phenomenology

The disadvantages of using phenomenology are:

- The subjectivity of the data leads to difficulties in establishing reliability and validity of approaches and information.
- It is difficult to detect or to prevent researcher induced bias.
- There can be difficulty in ensuring pure bracketing - this can lead to interference in the interpretation of the data.
- The presentation of results - the highly qualitative nature of the results can make them difficult to present in a manner that is usable by practitioners.
- Phenomenology does not produce generalizable data.
- Because the samples are generally very small, it cannot be said that the experiences are typical.
- The original Husserlian/Heideggerian texts were written in German, and translations of words could lose the special meaning that was assigned to them by Husserlian and Heidegger.
- On a practical note, it is important to consider the possible difficulties of participants expressing themselves.
- Participants need to be interested and articulate - problems that can cause difficulties in being able to express themselves include foreign language, age, brain damage, and embarrassment.^{13, 14}

Application of Phenomenological Studies in Dentistry

Health is the society development pivot and society health is affected by its being developed. Oral and tooth health is known as one of the eleven, twenty-first century mottos and it used to be considered of primary health care elements. Tooth decay is the most widespread and prevalent disease of mankind and there are only limited individuals who never suffer from it in their life time. Oral - tooth health refers to all oral health & performance aspects, particularly gingival and dental health.

Decayed tooth has expanded because of change & variations in man's life & change in diet and civilization progress and hence can be called "civilization disease". Not observing behaviours related to oral and tooth and gingiva in

eating, voice quality and speaking depends on the importance of correct teeth caring which include prevention from oral infection, gingival inflammation and breathing difficulties.

Oral and tooth health care is taken as one of the significant branches of general health. Paying attention to this issue is one of the foremost WHO programs so as to prevent chronic diseases and promote health. The implementation of this program is done as a priority of schools health promotion; besides the general oral health goals until 2020 to spread quality, oral health systems are specialized. Consumption pattern of diet and people's culture and knowledge level associated with oral and dental health observance has a direct relationship with high statistics of tooth decay and some other oral and dental complications in the country. Thus with respect to prevention issue, oral health is aligned with health and therapeutic activities in primary health care network system, Incorporation plan in primary health care, targeting qualitative and quantitative improvement of oral and dental primary health care services has to be put in order to improve or increase oral health with an agreement signed between health, treatment and medical training department and educational department. Scientific experience in study field has proved that there are yet many cultural and social obstacles for dental studies, especially people's private life dimensions. Stating the cause by people who use this method can be effective in recognizing the issue & understanding it, in such a condition, using qualitative study methods is extremely useful. Phenomenology is a qualitative method, that study individual's familiarity, discernment and emotions enabling the disclosure of oral & dental health experiences.^{2, 15, 16}

Phenomenological study also enables to explore the leadership skills, practices and behaviours of dentists owning and operating a private dental practice. The theoretical framework guiding these studies include social cognitive theory, social constructivism, humanism, and leadership theory. These studies also explore dental team skill sets, transformational and situational leadership implement the use of performance assessment tool, and create a culture of lifelong learning with in dental practice.¹⁷

Discussion

A phenomenological study examining the meaning and knowledge of health among older adult immigrants from Russia by **Benisovich SC et al (2003)** suggests that phenomenological studies represents a first step toward better understanding the barriers facing this kind of population in learning about and practicing health behaviours. It also draws attention to the ways in which beliefs about health may impact health behaviour.⁸

Fade S (2004) in his paper titled 'using interpretative phenomenological analysis for public health nutrition and dietetic research: a practical guide' introduces interpretative phenomenological analysis (IPA) as a framework for analysing qualitative research data collected for public health nutrition and dietetic research studies. IPA can be used to analyse data from one-to-one interviews in order to develop 'thick descriptions' that may help illuminate human experience. IPA can also be used to develop theories and/or models, which could help inform policy.⁷

Abedi G et al (2013) in their study on the phenomenology of students' perception and behaviour on oral and tooth health opined that this study using phenomenology showed that the students do not possess sufficient knowledge about the importance of tooth & month health and just knowing the ways to prevent the factors behind tooth decay cannot

influence people's behaviour. Thus, such studies enable knowledge that planning regular training programs related to oral and tooth health in schools is inevitable and is strongly required.¹⁰

Heely Lee-Ann N (2013) in the dissertation titled 'A Phenomenological Study: Leadership Strategy for the Dentist in a Private Dental Practice Setting' explored leadership skills, practices and behaviour of dentists owning and operating a private dental practice. The work suggested that dentists in private practice with their team participation skills and a culture of lifelong learning along with transformational and situational leadership can improve their practice providing better quality care.¹⁷

Conclusion

The present review was conducted with purpose of understanding the method of Phenomenological research, its common approaches and resources to explore their potential for dental research. Phenomenology can encompass narrative research. This method is attractive to qualitative dental researchers because caring is fundamental to the research approach. Phenomenology can be a vehicle to illuminate and clarify central and important issues in Dentistry. Phenomenological research is one additional approach to research that expands the researcher's repertoire of tools to investigate important questions in the nature and delivery of dental treatment.

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