

Application of Colaizzi's Method of Data Analysis in Phenomenological Research

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Abstract

Background: Phenomenology is a research method intended to explore the experiences of people as they live in different phases of their life. Aim: This paper aimed to explore the Colaizzi's method of descriptive data analysis to articulate the experiences of women living with Ischemic heart disease (IHD).

Method: By using the actual research data, the technique of Colaizzi's data analysis was used to extract, organize and analyze the data.

Results: Colaizzi's strategy was effectively utilized in identifying significant statements from the transcribed verbatim and meanings were formulated. From these formulated meanings clusters of themes and themes were derived which eventually helped in the development of thematic map of experiences of women with Ischemic heart disease (IHD).

Conclusion: Colaizzi's step of data analysis in descriptive phenomenology was effectively utilized in this research that facilitated in reflecting the experiences of IHD patients.

Keywords: Colaizzi's data analysis, Phenomenology, Ischemic heart disease (IHD), Lived experience.

Introduction

Phenomenology comes from the academic disciplines of Philosophy and psychology. Phenomenology can be divided into descriptive phenomenology created by Husserl¹ and interpretive- hermeneutic phenomenology created by Heidegger.² The design used in this study was descriptive phenomenological design.

There are four steps in descriptive phenomenology. They are bracketing, intuiting, analyzing and describing. Bracketing is the process of identifying and holding in abeyance the preconceived beliefs and opinions about phenomena under study. Intuiting occurs when researchers remain open to the meanings attributed

to the phenomena by those who have experienced it. Phenomenological researchers then proceed to the analysis phase i.e. extracting significant statements, categorizing, and making sense of the essential meanings of the phenomenon. Finally, the descriptive phase occurs when researchers come to understand and define the phenomenon.¹⁻³

Step 1: Obtaining a general sense of each Transcript: In the study of lived experience of women with IHD, the researcher personally conducted the interviews, which helped to gain a holistic sense pertaining to the entire experiences of the participants. The audiotapes were read three to four times and attempted to comprehend the thought processes and the feelings of the participants. This was suggested by Colaizzi (1978)³ that the investigator should read the audiotape many times in order to clearly understanding the content.

Step 2: Extracting significant statements: As per Colaizzi (1978), the researcher then extract significant phrases and statements from the transcript that together

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form a whole meaning of the experience. I read and reread the transcript and analyzed each transcript to identify significant statements from the transcript. These statements were written separately for each participant and coded as transcript page number and line number.

This was given to a peer group member for checking to obtain clarity of thoughts and suggestions were incorporated. Table 1 illustrates some of the statements extracted from the interviews.

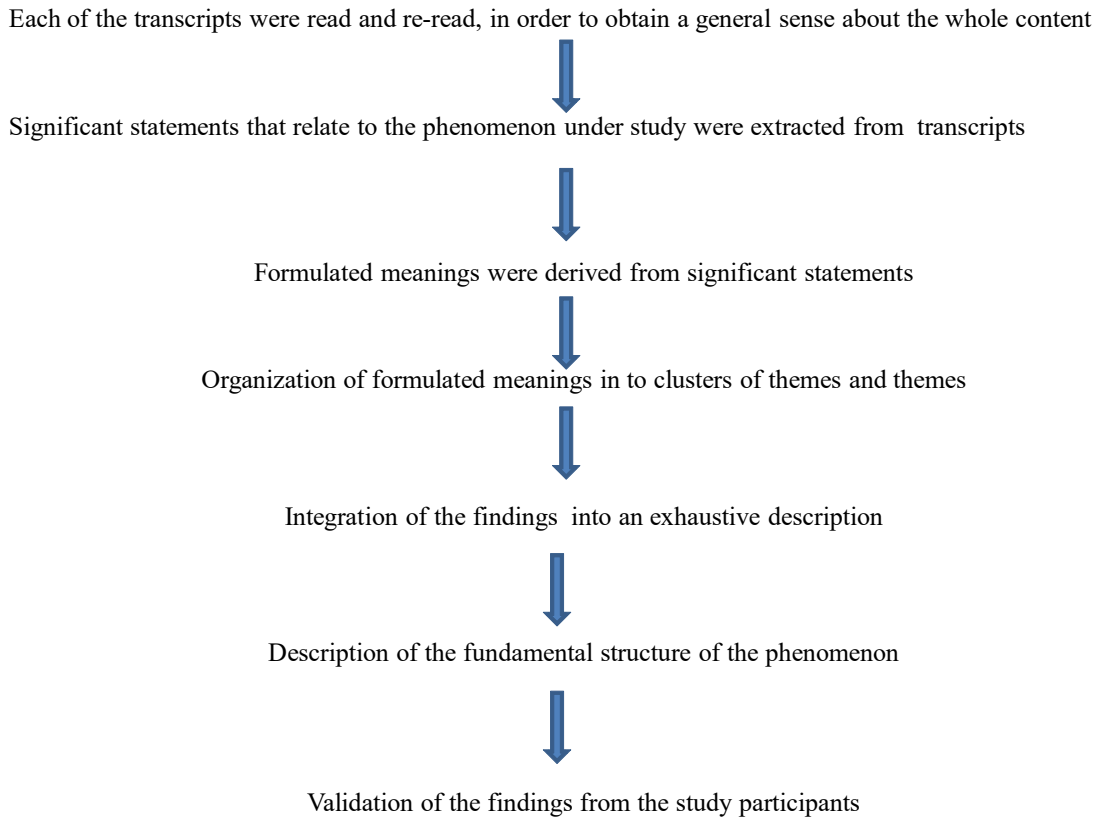


Figure 1: The steps of Colaizzi’s Phenomenological Data Analysis

Table 1: Examples of Significant statements

Significant statements	Participant	Transcript Page No	Line No
She said “It (pain) started early morning at 4 ‘O Clock, I went to bathroom came back and lied down. When I was stretching, I felt like some pain from here (Chest) like something obstructing”.	A	2	22
“Symptoms started as burning in the chest (nencherichil) and breathing difficulty.... That day it was severe distress and I was not getting breath. Initially pain was not so severe, ... it started around 05.00 O’ clock in the evening;..... While mopping, it had started suddenly, immediately I sat down, it was unbearable, was localized to chest only, not radiating, such a kind of distress, I tried to walk,... I water the plants, which made bit relief”.	C	19	3
“That day I was walking to neighbourhood house (brother’s house) for voting. Then all over I started getting pain, just like something scratching, like pricking with a throne”.	F	31	27
“While coming back from a marriage function,“Symptoms started when I was bending myself and mopping the floor. Suddenly I got a strangulating pain from the chest. Then I stopped mopping. I had back pain too. The pain was like someone pressing tightly, not associated with vomiting and headache”.	I	49	3
“I did not have many difficulties afterwards (after the procedure, PTCA). Later I remember they are taking something from here....That was really a terrible experience to lie still with this pain”	J	52	3

Step 3: Formulation of meanings: In this step, Colaizzi (1978) recommends that the researcher attempts to formulate more general restatements or meanings for each significant statement from the text. Meanings were formulated from the significant statements and discussed with the same peer group member. As per Husserl (1960)^{1,3} bracketing is essential because this will help

to avoid misinterpretation about the participant’s views. These formulated meanings were then coded and categorized and were given to expert researcher to check for the correctness of these processes and consistency of the meanings. Table 2 illustrates how significant statements were converted into formulated meanings.

Table 2: Examples of formulated meanings from significant statements

Significant Statements	Formulated Meanings
She said “It (pain) started early morning at 4 ‘O Clock, I went to bathroom came back and lied down. When I was stretching, I felt like some pain from here (Chest) like something obstructing”.“Symptoms started when I was bending myself and mopping the floor. Suddenly I got a strangulating pain from the chest. Then I stopped mopping. I had back pain too. The pain was like someone pressing tightly, not associated with vomiting and headache”.	Pain experience was so severe that prevented the patient to perform the activities of daily living and household chores.
“Pain started from chin. It is like tightening, when I climb up the stairs..... ECG and TMT all are normal. Still I had pain... Sometimes when I walk, there is no pain. Only sometimes I am getting the pain”. “Now sometimes I have some pain over the teeth and near the jaw and no palpitation”.	Pain was not confined to a single point. It kept on radiating from chest to chin, and then to teeth and jaw, which is typical of heart attack.
I asked about whether there is any kidney problem, She said, “I don’t know sir...I have edema on my legs. When I get up early morning, there is puffiness on my face, then everyday asks why this”.	Patient had associated medical conditions such as kidney problems and hence edema on face and legs which worsened the general condition.

Step 4: Organization of formulated meanings in to clusters of themes and themes: After obtaining formulated meanings from significant statements, the researcher arranged them into clusters of themes. These theme clusters then shrunken into emergent themes which was depicted in Table 3. All these themes are internally convergent and externally divergent; which implies that each “formulated meaning” was coming

only from one theme cluster.^{4,5} These clusters of themes and the final themes were then given to the peer group member as well as to the expert researcher for checking its accuracy. Table 3 shows the process of constructing the first theme “Experience of pain” through integrating various clusters of themes. The thematic map developed for this study was displayed in Table 4.

Table 3: Developing clusters of themes and themes from formulated meanings

Formulated meanings	Clusters of Themes	Emergent Theme
Pain experience was so severe that prevented the patient to perform the activities of daily living and household chores.	Agonizing pain	Experience of Pain
Pain was not confined to a single point. It kept on radiating from chest to chin, and then to teeth and jaw, which is typical of heart attack.	Radiating pain	
Patient had associated medical conditions such as kidney problems and hence edema on face and legs which worsened the general condition	Associated symptoms	

Table 4: Thematic Map

Theme Cluster	Emergent Themes
Agonizing Pain Fluctuating symptoms Associated symptoms	Experience of Pain
Ambiguous diagnosis Doctor Shopping Medication overload Familial tendency Co morbid conditions	Disease Focus
Fear of recurrence Fear of impending death Irrational reasoning Shock from the loss of loved ones Anxiety about of loved ones	Anxiety
Financial constraints Burdened family Activity restriction Disturbance in daily routines Natural disasters	Stumbling blocks
Joy of togetherness Pleasant memories	Sparkle of Joy
Family support Social support Spiritual support	Support system
Previous experience Learning to cope various ways Adjustment as per the need of the situation	Break down barriers

Step 5. Exhaustively describing the Phenomenon:

In the fifth stage of analysis, the researcher integrates all the resulting ideas into an exhaustive description of the phenomenon. This was achieved by combining all the theme clusters, emergent themes and formulated meanings into a description to create an overall structure. It is then presented to the experts to confirm its completeness and its reflection to the experiences of women with IHD. ⁶⁻⁸

Step 6. Describing the fundamental structure of the phenomenon: In this step, findings were reduced to avoid repetitions and to make a clear and concise description of phenomenon. In my research study, this was depicted as a conceptual framework which contained all the dimensions of lived experience of women with Ischemic heart disease.

Step 7. Returning to the Participants to validate the findings from the study participants: This

step aimed to validate study findings using “member checking”. This is the final stage of data analysis which involves returning to the participants for a follow up interview, to elicit the representativeness of the emerged phenomenon with their experience.⁹⁻¹¹

Conclusion

The purpose of this paper was to disseminate the researcher’s reflection and experiences while analyzing this phenomenological study by using Colaizzi’s method. Even though there are many studies used Colaizzi’s method as a tool for their analysis, the steps for conducting an actual research with illustrations were very few. Hence the researcher tried to unveil the processes involved in analysis using this method.

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