

Phenomenography: An emerging qualitative research design for nursing

Abstract

Background

Phenomenography emerged from pedagogy to examine the qualitatively different ways that individuals experience and perceive the same phenomenon. Despite its uniqueness, the uptake of phenomenography in nursing research is still limited. Potentially, this may be related to confusion regarding what the design is about, its philosophical underpinnings and how distinct it is from other qualitative designs.

Objectives

To offer a better understanding of phenomenography by comparing it with other established qualitative research designs, examining its theoretical foundations, highlighting some studies that have employed the approach in nursing and offering methodological guidance to improve its uptake in nursing.

Design

Discussion paper.

Findings

Compared to the traditional qualitative designs employed in nursing, phenomenography has been utilized in fewer studies. The ontological, epistemological and methodological basis of

phenomenography highlights it as a distinct design. The strength of phenomenography lies in its emphasis on understanding the collective variations between participants and presenting these holistically as an ‘outcome space’.

Discussion

Phenomenography is a distinct qualitative research approach that presents a unique opportunity for nursing to further its use. Issues regarding bracketing, the inclusion of phenomenography studies in qualitative meta-synthesis and employing a hermeneutic approach to phenomenography are avenues for further work in nursing.

Patient and Public Contribution

No patient or public contribution.

INTRODUCTION

Qualitative research designs are generally employed to explore, describe, illuminate and understand human experiences Polit and Beck (2008, p. 662). These research approaches seek to examine and interpret phenomena as they occur within the participants' natural contexts. Qualitative research can therefore be considered interpretive and naturalistic. Within the broad tradition of qualitative research, there are several theoretical orientations or perspectives that underpin a chosen methodology and examples include structuralism, poststructuralism, social constructionism, symbolic interactionism, postmodernism, critical social theory, feminist theory and critical realism (Draper, 2004). The focus of these approaches ranges from broad theoretical assumptions concerning ontology (nature of reality) and epistemology (how it comes to be known) to more specific methodological issues (de Gialdino, 2009). Major qualitative methodologies that have emerged from these theoretical orientations include narrative inquiry, phenomenology, grounded theory, ethnography, case study and extended case study designs (Fridlund, 1998; Renjith et al., 2021). Though these research designs emerged from varying philosophical perspectives and apply unique lenses to research studies, a common theme that runs across them is their focus on uncovering similar, shared experiences among research participants. In contrast to these established qualitative methodologies, phenomenography has emerged as an approach within the interpretivist paradigm to capture and describe the variations in participants' experiences (Hajar, 2021; Marton, 1994).

Phenomenography as a unique design emphasizes the varied ways, including both similarities and differences, regarding how individuals experience the same phenomenon (Marton, 1981, 1986). It focuses on describing the world as 'experienced and understood' (second-order perspective) rather than as 'experienced' (first-order perspective) (Marton, 1981, 1986). This

method is based on the idea that people perceive and understand the world around them in different ways. Phenomenography seeks to identify and describe these different ways of perceiving the world. It does this by analysing people's experiences and identifying the various aspects of those experiences that are important to them. In nursing, phenomenography can be used to explore a wide range of topics. For example, it can be used to gain insight into how patients and their families experience their illness and treatment. This can help nurses and other healthcare professionals to better understand the needs of their patients and to provide more effective care. Phenomenography can also be used to explore how nurses experience their work irrespective of the setting. This can help to identify the factors that contribute to job satisfaction and burnout among nurses, and to develop strategies to improve the working conditions of nurses. Put together, phenomenography is potentially a valuable approach in nursing and healthcare to capture, understand and describe the varying lifeworld of patients, healthcare providers and students to inform policies, programs and practices (Barnard et al., 1999; Sjöström & Dahlgren, 2002).

BACKGROUND

Phenomenography is a research design that aims to identify and describe the qualitatively different ways in which different people experience, conceptualize, perceive and understand the same phenomenon (Marton, 1981). Etymologically, phenomenography is derived from the Greek words 'phainomenon' (which means 'appearance') and 'graphein' (which means 'description') (Hasselgren & Beach, 1997). Accordingly, phenomenography can be interpreted as an approach to the study of 'descriptions of things as they appear to us' (Åkerlind, 2018). Unlike the established qualitative methodologies that emerged from strong philosophical orientations, phenomenography emerged from a rather strong empirical root when Marton and Säljö

(1976) undertook the seminal work at the University of Gothenburg, Sweden, involving year one university students to ascertain why students working on the same learning problem often arrived at different solutions (Marton & Säljö, 1976). Following in-depth interviews with the students, the authors observed that the qualitative variations in the learning outcomes could be related to how the students approached the text, that is, either with the intention to comprehend the text ('deep approach') or to memorize and reproduce the text verbatim ('surface approach') (Marton & Säljö, 1976). To explain the observations, however, the authors were unable to identify an existing qualitative design that helped to identify the qualitatively different ways that persons comprehended a phenomenon which led to the emergence of the phenomenographic approach.

Subsequent work led to the evolution of phenomenography as a distinct qualitative methodology which is less interested in individual meaning (i.e., meaning constructed by a person) than it is in emphasizing collective meaning (i.e., meaning of a phenomenon from a group perspective) and focuses on 'reflective' experience (an awareness after an individual has reflected on the experience) rather than 'prereflective' (an awareness before an individual does any reflection) experience (Ashworth & Lucas, 1998; Booth, 1997; Marton, 1986, 1994; Svensson, 1997). From these early roots, phenomenography has evolved as a frequently used qualitative approach to research education in various disciplines such as physics (Ornek, 2008), higher education (Entwistle, 1997; Stolz, 2020; Tight, 2016), engineering (Dringenberg et al., 2015; Mann et al., 2007) and mathematics (Anđić et al., 2023).

In clinical nursing practice, phenomenography made its initial debut in the 1990s following a Swedish study by Bendz (1996) which examined and described how nursing students

conceived clinical situations differently and how their conceptions changed during and after their professional training in Sweden (Bendz, 1996). Another study emerged around the period which sought to examine and describe the structure and content of assessing acute postoperative pain among nurses and physicians in Swedish healthcare facility (Sjöström, 1995). Two additional Swedish studies emerged after these which reported on the varying approaches to postoperative pain assessment by nurses and physicians (Sjöström et al., 1999; Sjöström et al., 1997). Studies employing phenomenography in nursing education research did not emerge until the first decade of the 21st century with most of these studies coming from Sweden (McClenny, 2020). In 2002, the first methodological paper conceptualizing the application of phenomenography in nursing research was published (Sjöström & Dahlgren, 2002). Though an important paper with helpful guidance, the methodological paper by Sjöström and Dahlgren (2002) did not offer in-depth information regarding how phenomenography varied from other qualitative designs/methodologies. Besides, at the time, phenomenography was still evolving which creates room for further work to examine its application to phenomena of interest to the discipline of nursing.

To ascertain the use of phenomenography in nursing, we undertook a limited, focused database search in Embase and CINAHL from their inception to April 2023 with the help of a librarian. We used the search terms ('phenomenography'/exp OR 'phenomenographic') AND ('nursing'/exp OR 'nursing') and filtered the results based on 'articles' and 'articles in press'. The search yielded less than 500 studies from 1995 to 2023. A recent integrative review that examined the utilization of phenomenography in nursing education research reportedly identified only 13 studies employing this approach between 2009 and 2019 (McClenny, 2020). When we applied the following search terms: 'phenomenology' OR 'phenomenological' OR 'lived experience' AND 'nursing', the search yielded more than 5000 studies from 1971 to 2023. When

repeated for grounded theory, we identified more than 3000 studies from 1981 to 2023. Comparatively, these may suggest the rather slow uptake of phenomenography in nursing when compared to the traditional, well-established qualitative research designs. This may also indicate that, potentially, phenomenography remains a lesser-known qualitative research approach (Assarroudi & Heydari, 2016; Forster, 2013; McClenny, 2020; Sjöström & Dahlgren, 2002).

Further to the above, some studies have highlighted the confusion around phenomenography and other qualitative designs, particularly phenomenology which often leads to conceptual issues, methodological errors and uncertainty regarding which approach to use (Barnard et al., 1999; Cibangu, 2022; Jobin & Turale, 2019; Ornek, 2008; Stolz, 2020). Yet, this has received limited attention in the sphere of the application of phenomenography in nursing. Indeed, a comprehensive overview of phenomenography and its application to nursing is warranted. Thus, this methodological paper sought to offer a better understanding of phenomenography by comparing it with other established qualitative research designs (phenomenology, grounded theory, ethnography and narrative inquiry), examining its theoretical foundations (ontoeπισtemology and methodology), highlighting some studies that have employed the approach in nursing, offering methodological guidance to improve its uptake in nursing and highlighting specific issues relating to the use of phenomenography.

COMPARING PHENOMENOGRAPHY AND OTHER QUALITATIVE RESEARCH DESIGNS

See Table 1 for a summary regarding the comparison between phenomenography and other qualitative research designs (phenomenology, grounded theory, ethnography and narrative inquiry).

TABLE 1. Comparing phenomenography and other qualitative methodologies.

	Phenomenography	Phenomenology	Grounded theory	Ethnography	Narrative inquiry
Focus	Second-order perspectives (the world as experienced and perceived/understood)	First-order perspective of lived experiences (the world as experienced)	First-order perspective of social processes	First-order perspective of experiences with a culture	First-order perspective of personal narratives/stories
	Seeks to capture and describe reflective experiences with an emphasis on collective meaning	Captures the prereflective lived experience with an emphasis on individual experience	Captures prereflective experience of the social processes	Captures prereflective experiences with the culture	Captures prereflective experience of one's story or narrative
Aim	To describe the varied perceptions and understandings of the same phenomenon from	To reveal the 'essence' of a phenomenon	Action-focused and seeks to reveal the social processes involved in a	To produce a comprehensive account of the social	To capture the life stories/experiences (particularly behaviours, emotions and motivations that

	different perspectives		phenomenon	setting/culture and people therein	are not explicitly expressed)
Data collection approaches	In-depth interviewing with open-ended questions; participant observation, drawings, products of work and written discourse are also potential sources of data	Semistructured interviews, diaries and observation	Data come from interviews and participants' observations; a wide variety of documentary materials	Observation and interviews	Interviews and diaries
Data analytical approach	Sorts qualitatively distinct perceptions which emerge from the data collected into specific	Varies based on which approach is adopted: Husserlian or Heideggerian	Constant comparison approach (open, axial and selective	Iterative and often unstructured	Narrative analysis with a focus on identifying and interpreting core narratives

	‘categories of description’	phenomenology	coding) to capture a core category		
Outcome of analysis	Outcome space which represents the qualitatively different ways that the participants experience the phenomenon	Description or interpretation of the ‘essence’ of the phenomenon	A theory or model describing the social processes involved in the phenomenon	Qualities of a group's culture or experiences with the culture	Description of the narrative or story

Phenomenography and phenomenology

The confusion surrounding phenomenography and phenomenology and what each of these approaches uniquely represents remains a long-standing issue (Cibangu, 2022). Marton (1981), indeed, described phenomenology and phenomenography as ‘cousins by marriage’ (Marton, 1981). Needleman also described phenomenography as a potentially ‘good-for-nothing brother’ of phenomenology (Binswanger, 1963). Undoubtedly, both approaches share the term ‘phenomenon’ which implies ‘to make manifest’ (Giorgi, 1999). However, whereas phenomenography seeks to describe the variety in perceptions and understandings of an experienced phenomenon, phenomenology aims to identify and describe (descriptive phenomenology) or interpret (interpretive phenomenology) the ‘singular essence’ of a phenomenon of interest with the focus on similarities across the experiences (Giorgi, 1999; Marton, 1994; Marton & Booth,

1997). A variant of phenomenology (i.e., interpretive phenomenology) does not subscribe to the notion of bracketing, whereas in phenomenography, bracketing plays a key role similar to that noted in descriptive phenomenology (Giorgi, 1999; Marton, 1994; Marton & Booth, 1997). Further to these is the fact that differentiating prereflective experience and conceptual thought are central to phenomenology (Giorgi, 1999; Hajar, 2021), whereas phenomenography does not make such distinction (Marton, 1981).

Another notable contrast between phenomenography and phenomenology is the fact that the former deals with second-order perspective (the world as experienced and understood), while the latter focuses on first-order perspective (the world as experienced) (Giorgi, 1999; Hajar, 2021). Phenomenology with a focus on the first-order perspective examines the phenomenon itself, whereas phenomenography with a focus on second-order perspective ascertains people's ideas about or experiences with that phenomenon, that is, their 'conceptions' of the phenomenon. A further difference between phenomenography and interpretive phenomenological analysis (IPA) is worth highlighting here. IPA aims to grasp the texture and qualities of an experience as it is lived by an individual. The primary interest in IPA is the person's experience of the phenomenon and the sense they make of their experience rather than the structure of the phenomenon itself (Tomkins & Eatough, 2010). This feature may seem to suggest that the focus of IPA aligns with the second-order perspective (Smith et al., 2010) albeit the focus of phenomenography on varied/different conceptions distinguishes it from IPA.

Another difference is the fact that phenomenography focuses on collective meaning and understanding, while the focus of phenomenology is on the individual experience. The product of phenomenography is a description of the 'outcome space' (the ordered and related set of

categories of description emerging from the data), whereas phenomenology brings to the fore the ‘singular essence’ of the experience (structure or qualities of the phenomenon as appear in consciousness in terms of what was experienced and how it was experienced). Additionally, while phenomenology seeks to capture the ‘richness of experience’ (i.e. to say, the experience itself presents an avenue for rich in-depth data than our mere understanding of it), phenomenography is satisfied with the ‘sparseness of the categories of descriptions’ (i.e. to say, our conception/understanding of an experience may be as rich as the essence of the experience itself) (Giorgi, 1999; Marton, 1988). Put together, these differences suggest that phenomenography and phenomenology serve distinct purposes (Stolz, 2020).

Phenomenography and grounded theory

Regarding phenomenography and grounded theory, whereas the former highlights variations in understanding, the latter is an action-focused approach which highlights the processes regarding a phenomenon with the aim of generating a theory to explain those processes (Strauss & Corbin, 1994). Put simply, whereas phenomenography focuses on second-order perceptions and variations in these perceptions (Kinnunen & Simon, 2012; Marton, 1988; Marton & Pong, 2005), the focus of grounded theory is experience, perception and action (Strauss & Corbin, 1994).

Although both phenomenography and constructivist grounded theory are based on nonpositivistic view of knowledge and an inductive, iterative approach to analysis, they respond to distinct research questions (Kinnunen & Simon, 2012). It is worth highlighting that the classical approach to grounded theory depicts a positivistic notion (Aldiabat & Navenec, 2011) which contrasts with the nonpositivist nature of phenomenography. Consequently, the outcome of

analysis emerging from these studies varies, whereas phenomenography ends with an outcome space (categories of description, which are logically related to each other. Often displayed as a table), grounded theory presents models, stories that describe the variation in context, actions, intervening events and consequences (Kinnunen & Simon, 2012).

Phenomenography and ethnography

Ethnography as a qualitative design focuses on the study of cultures and social process through fieldwork (Hammersley, 2006) which distinguishes it from phenomenography which focuses on variations in experiences/perceptions. Additionally, whereas ethnographers may be involved in the day-to-day experiences of their participants or culture they are studying (Aktinson & Hammersley, 1998), phenomenographers may not necessarily be involved in such routines (Marton & Pong, 2005).

Phenomenography and narrative inquiry

Narrative inquiry centers on the experience of an individual or a small group to reveal their lived experience (Connelly & Clandinin, 2006) which contrasts with phenomenography considering its focus on group/collective meanings rather than individuals. Narrative inquiry is based on the premise that we understand or make sense of our lives through narratives or personal stories which are helpful to understanding the changing conditions of lives (Murray, 2009). In contrast, phenomenography focuses on a particular experience at a point in time.

THEORETICAL FOUNDATIONS OF PHENOMENOGRAPHY

The search for and production of knowledge are based on a set of philosophical assumptions regarding the nature of being in the world (ontology), the nature of knowledge (epistemology) and the strategies to acquire knowledge (methodology). Kuhn (1970) describes these as paradigms or worldviews which guide the researcher, the process of inquiry and outcomes (Kuhn, 1970). Though phenomenography developed from strong empirical roots, philosophical assumptions have been articulated to underpin its practice (Sjöström & Dahlgren, 2002; Svensson, 1997).

Ontology

Ontologically, phenomenography is oriented towards a nondualist (relational) view of human consciousness and affirms the notion of subjectivity (Marton, 1981, 1986, 1988). Phenomenography rejects the separatist notion between the ‘internal’ (thinking) and the ‘external’ world out there, and instead affirms a relationship between ‘consciousness/awareness and reality’ (Åkerlind, 2022; Cibangu, 2022; Uljens, 1996). In fact, the ‘experiencer’ and the world are considered inseparable (Go & Pang, 2021) as Marton and Booth (1997, p. 13) note that ‘There is not a real world “out there” and a subjective world “in here.” The world (as experienced) is not constructed by the learner, nor is it imposed upon her; it is constituted as an internal relation between them’ (Marton & Booth, 1997). This implies that what an individual can know and communicate about is the ‘world’ they experience and understand; if the phenomenon is external to their experience, then they have no knowledge or understanding of its existence (Hajar, 2021). To phenomenographers, one world exists, and people experience and construct their understanding within that world in different ways (Bowden, 2005; Marton, 1981, 1986, 1988). This ontological stance separates phenomenography from other frequently used qualitative

designs in nursing such as qualitative description (Sandelowski, 2010) and interpretive description (Thorne et al., 1997) which are not aligned to a specific theoretical perspective.

Accordingly, the object and subject in phenomenography are not ‘separate’ of each other and a person's understanding reflects the relationship between the individual and the phenomenon ‘experienced’ (Marton & Booth, 1997). Reality therefore exists through the way in which an individual ‘conceives of it’ (Hajar, 2021). Unpacking these ontological assumptions in the domain of nursing implies that persons are not separate from their experiences; instead, they can ‘know’, ‘understand’ and ‘communicate’ what they experience in that world. Persons living in the ‘world’ of chronic or life-limiting illness therefore know and understand what it means to experience the phenomenon of ‘being in that world’, and it is these understandings that phenomenography seeks to uncover and describe collectively.

Epistemology

Epistemologically, phenomenography takes on an objective stance which holds that the basis of all knowledge is perception (Dahlgren & Fallsberg, 1991; Marton, 1981; Marton & Booth, 1997). Phenomenography is grounded in the constitutionalist view of knowledge and intentionality of awareness which reflects a focus on the descriptions revealed by persons about the way they perceive and understand the phenomena (Hajar, 2021; Han & Ellis, 2019). Thus, to understand the phenomenon holistically, the focus remains on ‘collective’ rather than ‘individual’ human experiences. The emphasis on attaining a collective meaning seems to contradict the constructivist paradigm that ontologically emphasizes how an individual actively constructs their own notions of reality through their cognition (Park, 2023). Indeed, constructivism is based on dualistic assumptions because it is concerned with how the individual makes meaning

in relation to pre-existing social and natural systems (Young & Collin, 2004). Moving from individual to collective meanings may suggest that phenomenography potentially anchors between constructivism and social constructivism. Marton and Booth (1997) however reject both individual and social constructivism and argue that in phenomenography, there is only one world, where there is an internal relation between the inner world and the outer world. Marton and Neuman (1989) argue that the phenomenographic approach neither ‘coincides with that of constructivism, nor that of realism (according to which true knowledge mirrors what the world is really like)’. In rejecting the constructivist notion that the individual can never get in touch with the reality that he is divorced from (Wright & Osman, 2018), Marton and Neuman (1989) point out that if ‘all knowledge is assumed to be derived from the individual's constructing activity, it is very difficult to see how he can find out about the constraints imposed by the surrounding world that would lead to accommodation’. Yet, drawing on the difference between constructivism and constructionism highlighted by Crotty (1998), phenomenography does share some characteristics of constructivism because it illuminates the unique understanding and experience of the individuals in relation to a phenomenon based on which to draw collective meanings are drawn.

The notion of ‘intentionality’ reflects purposefulness, consciousness and awareness of the phenomenon being experienced (Han & Ellis, 2019). That is, humans differ as to how they experience the world, and such differences can be understood, communicated and described by others (Sjöström & Dahlgren, 2002). Knowledge within the context of phenomenographic epistemology does not exist independently of the knower, and awareness is directed towards ‘something other than itself’ (Hajar, 2021; Han & Ellis, 2019). Describing an experience or ‘concept’ in relation to a phenomenon is therefore in terms of a ‘structure of awareness’ which comprises of two interconnecting components: a structural aspect (internal and external horizons) and a

referential aspect (the meaning embedded in the structure) (Marton & Pong, 2005). An internal horizon describes the focus of the individual's attention which has a stable aspect along with one or more variable aspects (Marton & Pong, 2005). The external horizon, on the other hand, describes the aspect beyond which an individual with a specific stance towards the universe cannot see (Marton & Pong, 2005). Phenomenography emphasizes conceptions as being central to describing knowledge (Svensson, 1997). Additionally, what can be known through the phenomenographic lens is considered 'context sensitive' (Go & Pang, 2021; Marton, 1981, 1994).

The focus on individual's awareness of reality and their expression of this reality emphasizes that phenomenography embraces a 'second-order perspective' (as opposed to first-order perspective) which represents how they experience and conceive their world (Marton, 1981, 1986, 1994; Marton & Booth, 1997). As argued by Marton (1981), within the second-order perspective, 'researchers orient themselves towards the ideas of individuals and make statements about how these persons experience it' (Marton, 1981). This contrasts with the first-order perspective in which researchers 'orient themselves towards the world and make statements about it' (Marton, 1981). The objective stance of phenomenography emphasizes that a phenomenon is viewed from the lens of the participants rather than those of the researcher or society (Marton, 1981).

Methodology: Steps in undertaking phenomenography

Though the initial work by Marton (1986) did not present explicit steps to undertake phenomenography (Marton, 1986), later studies have proposed ways of navigating this unique approach. Järvinen (1997) has proposed the following steps to undertaking phenomenography:

defining the subject and restricting the focus, selecting participants, interviewing participants, putting the interviews on paper, analysis of the interviews and aggregating the analysis into categories of descriptions (Järvinen, 1997). In another study, the authors reported the key procedures in their study to include data collection and sampling, phenomenographic data analysis and effective communication of the phenomenographic results (Han & Ellis, 2019). Irrespective of the approach taken, it is evident that undertaking phenomenography involves identifying an area of interest, recruiting and sampling participants who have experienced the phenomenon, data collection, analysis and presentation using approaches congruent with the phenomenography approach as described below.

Methods: Data collection

Methodically, phenomenography supports the conduct of in-depth interviewing (Sjöström & Dahlgren, 2002). These interviews are considered dialogic in nature. Semistructured interviews with open-ended questions are particularly helpful, and the process is reflective focusing on the relationship between the interviewee and the theme of the interview (Barnard et al., 1999). The interview guide offers few entry questions, to allow subsequent conversation to proceed according to the answers obtained. Considerable emphasis is placed on the participants stating their view towards the question and on the interviewer obtaining a clear understanding of participants' views. To obtain quality phenomenographic interview data, it is crucial to understand participants' motivation in the study and to interpret immediately of their description to decide further questioning/probing. This approach is referred to as an intentional–expressive approach to phenomenographic interviews, where the conceptual meanings of participants are clarified and confirmed systematically to obtain valid data (Anderberg, 2000; Sin, 2010). In addition to

in-depth interviewing, Marton (1988) argues that participant observation, drawings, products of work and written discourse are also potential sources of data (Marton, 1988).

Purposive sampling approach is used to seek out those persons considered to have experienced the phenomenon under exploration. The role of a researcher engaged in phenomenography is to gain entry to the participants' lifeworld to explore their reflections and awareness of the experience. This requires one to employ the principle of 'bracketing' to suspend one's prejudices and judgement regarding the phenomenon.

Methods: Data analysis

The analytical phase of phenomenography involves reading and re-reading of the entire interview transcripts, not from the linguistic element perspective but from viewpoint of expressing relation to each part of the world (Barnard et al., 1999). The focus of analysis is to identify categories of description that help to describe the phenomenon. The fundamental question that researchers ask when undertaking analysis in phenomenography is 'what does this tell me about the way the participants understand the phenomenon' (Bowden, 2005). This contrasts with the focus of phenomenology in which the researcher is interested in identifying the essence or structure of a phenomenon.

The emergence of the initial categories of description remains an area of ongoing debate in phenomenographic research. For instance, Marton highlights that 'utterances' or 'quotes' that emerge during the in-depth interviewing help to uncover the categories (Marton, 1981, 1986). Walsh (2000) has argued that categories may be formulated by the researcher who is using a

theoretical framework or discovered by allowing the initial categories to emerge from the data (Walsh, 2000). Other authors have also noted that the initial categories should be identified during data collection or interview transcription phases (Given, 2008). Åkerlind (2005) also argues that the interview should be treated as a key unit of data that retains its significance throughout the analytical stage. Put together, the ongoing debate seems to center around ‘categories as constructed’ and ‘categories as discovered’ and the stance assumed in a particular study may have implications for methodological rigour/trustworthiness.

Like other qualitative data analytical approaches, interview data emerging from phenomenographic research need to be transcribed verbatim. Following transcription of the interviews, Svensson has posited that the transcripts be aggregated and considered as a ‘whole’ to develop the categories (Svensson, 1997) which is congruent with the approach posited by Åkerlind (2005). Dahlgren and Fallsberg (1991) have suggested the following steps be considered during data analysis in phenomenography: (1) familiarization (the researcher reads and re-reads the interview transcripts), (2) compilation (the researcher puts together the answers from the participants in response to a particular question), (3) condensation (reducing the individual responses to ascertain the central components), (4) grouping (the researcher classifies similar responses to formulate categories), (5) comparison (the researcher compares the emerging categories to ascertain the borders across them), (6) naming the categories and (7) contrastive comparison (describing the unique character and similarities of the category of descriptions) (Dahlgren & Fallsberg, 1991).

Aside the steps suggested by Dahlgren and Fallsberg (1991), Åkerlind (2005) has also put forward a three-step approach to data analysis in phenomenography which is also whole-transcript

centered. Firstly, there are reading and re-reading though each transcript at least three times with the final reading leading to generating notes and summarizing key ‘issues and themes’ emerging in the context of the others (Åkerlind, 2005). The second stage involves grouping ‘similar’ transcripts together. The third stage involves rearranging the groups after further readings, searching for similarities and differences in the overall meaning in the transcripts and alternately searching for ‘dimensions of variation in meaning that ran across the transcripts by looking for themes of expanding awareness running throughout the set of transcripts as a whole, where each theme linked a set of different dimensions of variation’ (Åkerlind, 2005, p. 121). Emerging themes in a phenomenographic study are required to have both a ‘logical’ standing and ‘empirical’ evidence (Åkerlind, 2005). Throughout the process, reiteration is employed to repeatedly scrutinize the categories against the data to refine them further (Walsh, 2000). This process has been described as a ‘continually seeking evidence’ (Åkerlind, 2018).

A category of description represents the key feature resulting from analysis of data in phenomenographic research highlighting the qualitatively different ways of experiencing a phenomenon (Forster, 2013; Marton, 1988). That is, to decide what is most important in a particular participant's answer. The outcome of the data analysis is a description of the participants' experience of the phenomenon which retains their language in a ‘descriptive form’ (Marton, 1988). The categories of description depict the different concepts of a phenomenon held by participants. Putting the categories of description together leads to a ‘holistic and multidimensional picture’ of the phenomenon under exploration referred to as ‘outcome space’ (Marton, 1994; Marton & Booth, 1997; Marton & Pong, 2005). The ‘outcome space’ offers a deeper understanding of the different ways that participants describe/communicate/understand the phenomenon and the relationship between them instead of phenomena in the surrounding world (Marton, 1994; Marton & Booth, 1997; Marton & Pong, 2005). Put together, the analytical approach

in phenomenographic research may seem like other approaches such as thematic analysis albeit the focus and outcome remain different. Also, the analytical approach employed in phenomenography employs a collective stance in data analysis, rather than an individual approach.

Methods: Rigour/trustworthiness

Trustworthiness in phenomenography is particularly concerned about the relationship between the empirical data and the categories of description ‘discovered’ or ‘constructed’ (Sjöström & Dahlgren, 2002). This requires a detailed description of all aspects of the research process (audit trail), decisions taken, questions formulated for the interviews, analysis undertaken and the presentation of the findings. The importance of bracketing in phenomenography may require researchers to make explicit their biases and their roles in the research process. Sufficient extracts from the data are also required to support the emerging categories of description. The need to pay attention to the ‘context’ of the phenomenon is also critical as the experience of people is often ‘contextually sensitive’. Besides, the context of the phenomenon can influence the study outcome. The framework proposed by Collier-Reed et al. (2009) is useful in assisting researchers to pay attention to the relationship between the phenomenon and the context wherein it occurs (Collier-Reed et al., 2009). The approach emphasizes a need to distinguish between contexts at different levels of the study (focusing on the researcher, the collective and the individual participant) (Collier-Reed et al., 2009). See Table 2 for a summary of approaches to ensure rigour in a phenomenographic study.

TABLE 2. Strategies to ensure rigour in phenomenography (adapted from Sin, 2010).

Study phase	Strategies to ensure rigour

Planning and participant recruitment	<ol style="list-style-type: none"> 1. Clearly articulated research problem congruent with the theoretical perspectives of phenomenography. 2. The use of phenomenography should be justified. 3. Purposive sampling approach to recruit persons who have experienced the phenomenon under exploration. 4. The nature of the research question, the quality of the data and the intended application of the findings should be considered relevant factors when considering the number of participants for a study. 5. Consideration of possible contexts and the extent to which the findings can be usefully applied.
Data collection	<ol style="list-style-type: none"> 1. Use of an interview guide that offers few entry questions, to allow subsequent conversation to proceed according to the answers obtained. 2. Seeking to understand the participants' motivation in the study and to interpret immediately their descriptions to decide further questioning/probing. 3. Probes and prompts should be used. 4. An intentional–expressive approach for phenomenographic interviews where interviewees' conceptual meanings are clarified and confirmed systematically to obtain valid data. 5. A systematic interview strategy for elucidating and confirming the conceptual meanings in the expressions that interviewees have made.

	<ol style="list-style-type: none"> 6. Encouraging the speaker to reflect on the intended meaning of the expression that has been made. 7. All interviews must be audio recorded. 8. The researcher should avoid asking leading questions. 9. Employing bracketing to suspend one's prejudices and judgement regarding the phenomenon. 10. Maintaining an audit trail regarding decisions made about the data collection phase of the study.
Data analysis	<ol style="list-style-type: none"> 1. Bracketing 2. The aim of phenomenographic analysis is to derive conceptions of the phenomenon of interest from the data. 3. Sufficient extracts from the data are also required to support the emerging categories of description. 4. The researcher should document fully and explicitly the analytical process. 5. The researcher recognizes his or her own preconceptions and takes deliberate measures systematically to minimize their influence on the research process and documents these clearly. 6. Repeat interviews if possible and participant confirmation of the findings.

	<ol style="list-style-type: none"> 7. Reliability of the interpretative process where the researcher exercises interpretative awareness and maximum fidelity to the data. 8. It is essential that researchers document and explain clearly how they have practiced interpretative awareness so that the reader can make a judgement about the research process and assess the reliability of the findings.
Reporting findings	<ol style="list-style-type: none"> 1. Presentation of an outcome space that describes the categories of qualitatively different conceptions of the phenomenon. 2. Commitment to reflexivity in reporting the research findings. 3. Quotations from the participants should be used to support and clarify the meanings of the reported conceptions.

SOME APPLICATIONS OF PHENOMENOGRAPHY IN NURSING

Though phenomenography emphasizes variations in understanding, a notable attribute of the approach is its focus on examining a collective human perspective of a phenomenon rather than individual perspectives. This stance lends itself to understanding phenomena from diverse perspectives. In clinical care, some studies employing phenomenography have been published. A study that employed phenomenography examined the varying descriptions of ‘caring’ by registered nurses (Andersson et al., 2015). The authors noted four qualitatively different ways that nurses understood and conceptualized the notion of ‘caring’: ‘caring as person-centredness’, ‘caring as safeguarding the patient's best interests’, ‘caring as nursing interventions’ and ‘caring as contextually intertwined’ (Andersson et al., 2015). By understanding these variations, it may be possible to identify the different actions or strategies to be employed when ‘caring’ for a

patient. In the area of surgical nursing, phenomenography has been employed to describe the different ways that surgical nurses comprehend their roles and interactions with patients and their families (Jangland et al., 2011). The analysis yielded four ways of understanding the surgical nurse's role: focusing on medical treatment, providing information, helping and supporting patients as individuals, and collaborating with patients in the care process (Jangland et al., 2011). In the domain of emergency nursing, a Taiwanese study utilized phenomenography to ascertain the qualitatively different ways that nurses understood workplace violence (Han et al., 2017). The authors uncovered four categories of description: a continuing nightmare, a part of the job, a direct threat and an issue that diminished the nurses' passion for emergency care (Han et al., 2017).

Further to the above, some studies were identified in the domain of nursing education. A phenomenographic study examined the ways that specialist ambulance nursing students understood their work in the Swedish Ambulance Service (Wallin et al., 2022). The authors uncovered five different ways of understanding work: medical, practical, patient-oriented, commanding and comprehensive roles (Wallin et al., 2022). These diverse descriptions can offer support to curriculum design and development of expertise. Another study that sought to map the conceptions of the desired process and outcomes of clinical learning among stakeholders involved in undergraduate clinical nursing education reported four conceptions from the data: meet curricular demands, learn to deliberately deliver patient care, learn to deliver patient care and become a continuously developing professional (Stoffels et al., 2021).

In the area of nursing leadership, management and administration, we identified two Swedish studies albeit these focused on leadership in the clinical setting (Larsson & Sahlsten, 2016;

Rosengren et al., 2007). The first study which examined registered nurses' perceptions of what it means to be the clinical leader at the bedside reported five categories of descriptions: demonstrating clinical knowledge, establishing an atmosphere for collaboration, structuring work to provide the best possible care, presence in patient care and monitoring coworkers' practice (Larsson & Sahlsten, 2016). The second study which examined the conceptions regarding nursing leadership in the critical care unit uncovered four categories of description: presence in daily work, supporting practice, 'facilitating professional acknowledgement' and improving care as an individual and as a team (Rosengren et al., 2007). Taken together, phenomenography is potentially applicable to all domains of nursing.

CRITIQUES AND ISSUES ASSOCIATED WITH PHENOMENOGRAPHY

Phenomenography as an emerging research approach is not without issues, critiques and limitations. Säljö (1996), one of the founding authors of the approach, expressed concerns regarding how phenomenographers analysed data in a collective fashion which generally ignored the 'individual' (Säljö, 1996). Säljö (1996, p. 24) argued that 'phenomenography has a weak spot in its lack of a theory of language and communication, and in its almost dogmatic disregard for paying attention to why people talk the way they do' (Säljö, 1996). Säljö (1997) further expressed concerns regarding the interview approach employed in phenomenography noting that the approach did not 'have access to anything except utterances from individuals' (Säljö., 1997). To make the best use of the these 'utterances', the interviewer needs to interpret immediately what the participant is saying to facilitate further questioning (Sjöström & Dahlgren, 2002). Thus, the data collection and analysis methods employed in phenomenography seem 'inseparable' (Marton & Booth, 1997).

Phenomenography has also been critiqued as ‘not achieving anything new’ (Taylor, 1993). This notion may perhaps be related to the fact that phenomenography deliberately rejected existing qualitative approaches at the time of its emergence (Tight, 2016). Taylor (1993) argues that ‘Even the phenomenographic movement in learning theory, which pays very particular attention to varying conceptions of a given phenomenon ... seems to miss much of the historical sedimentation in individual understanding’ (Taylor, 1993). Webb (1997) has also critiqued phenomenography and the notion of ‘deep’ and ‘surface’ learning highlighting the possibility of phenomenographers in identifying the ‘hierarchical arrangements of conceptions’ (Webb, 1997). Kember (1997) also highlights similar issues noting concerns regarding the accuracy of categories of descriptions reported by phenomenographers (Kember, 1997). Alsop and Tompsett (2006) have expressed doubts regarding the validity of the categories of descriptions presented by phenomenographers (Alsop & Tompsett, 2006). They further argue that the underlying principles of phenomenography will only yield a ‘narrow model’ of understanding (Alsop & Tompsett, 2006). Despite these ongoing debates, there is a general acceptance of phenomenography as a qualitative research design as work continues to improve on its practice (Tight, 2016).

DISCUSSION

In addition to the emergence and utilization of varied well-established qualitative methodologies to advance nursing science, phenomenography is still evolving, and, in some instances, it is confused with phenomenology (Barnard et al., 1999; Cibangu, 2022; Ornek, 2008). In this methodological paper, we have highlighted the potential of phenomenography to understand phenomena of interest to nursing, how it varies from other qualitative methodologies and its theoretical underpinnings. The uniqueness of each person suggests that clinicians, patients,

nurse leaders/ managers, nursing students and nurse educators are likely to experience the same phenomena in varied ways. Existing well-established approaches, however, only focus on capturing and explaining the ‘similar thread’ across these experiences. Though these are important to underpin policies and practice, the variation in understanding also has the potential of informing tailor-made approaches to programs, policies and practices. Phenomenography may therefore be able to transcend phenomena of interest to nursing practice, nursing education and leadership/administration which positions it as a potential approach warranting further consideration.

Nursing has long been attracted to qualitative research approaches as they permit researchers to gain entry into the complexities, subjectivities, social and political contexts of the health–illness experience (Thorne, 2022). The strength of phenomenography lies in its emphasis on understanding the collective variations between participants and presenting these holistically as an ‘outcome space’ (Marton & Booth, 1997; Marton & Pong, 2005; Sjöström & Dahlgren, 2002). Often, observations that challenge or contradict analytic interpretations are not given sufficient attention in the mainstream traditional qualitative methodologies and researchers are likely to set aside outliers/negative cases that do not conform to the emerging generalizations (McPherson & Thorne, 2006). Interestingly, phenomenography seeks out these variations, rather than focusing on a single ‘thread’. Thus, a phenomenographic study has the potential of highlighting the different ways individuals understand and experience the same phenomenon. In nursing and healthcare more broadly, the notion of individualized care is emphasized (Kapoor & Singh, 2022). Considering the heterogeneous nature of patients cared for by nurses and their families, it is evident that the perceptions, experiences and understandings of health, illness, recovery and death will significantly vary across settings and contexts which makes the use of phenomenography particularly useful to capture and describe these qualitatively varied

perceptions (Baker, 1997; Stenfors-Hayes et al., 2013). Similarly, in education, nursing students are likely to vary in their experiences (Christiansen, 2011). Thus, to better inform the development and implementation of tailor-made interventions in nursing and healthcare, there is a need to capture the variations in their experiences and understanding. This assertion positions phenomenography as a potentially useful approach to nursing which is worth exploring further (Sjöström & Dahlgren, 2002).

Despite the notable strength, phenomenography has been critiqued as lacking originality and similar to phenomenology (Richardson, 1999). In fact, one study has described phenomenography as a subset or type of phenomenology (Cibangu & Hepworth, 2016). Though both approaches may appear similar in some regards, there are philosophical variations and distinctions as mentioned earlier. The products of both designs are significantly different with each presenting a unique slice of reality. Perhaps, rather than focusing on these, we may need to shift attention to how these approaches may complement each other. Cibangu (2022, p. 662) has recently advocated a need to examine the ‘tighter relationship’ between phenomenography and phenomenology. For instance, a study can examine both the ‘essence’ of the experience from individual perspectives and the meaning/variations from the group perspective to develop a fuller comprehension of a phenomenon. Jobin and Turale (2019, p. 318) highlighted the notion of a ‘sequential exploratory approach’ to describe a study that combines the phenomenological lens to understand the structure/essence of a phenomenon and the phenomenographic lens to uncover the variation of participants' experiences towards the same phenomena. Hasselgren and Beach (1997) have also highlighted the potential of ‘hermeneutic phenomenography’ (an approach in which analysis is geared towards interpreting texts) and ‘phenomenological phenomenography’ (a blend of phenomenology and phenomenography) to uncover unique aspects of reality. Undoubtedly, combining these distinct approaches will require further attention to

their theoretical/philosophical foundations to justify why and how they can be ‘mixed’ in a single study.

Another potential area for further work is the inclusion of phenomenographic studies in qualitative meta-synthesis. To rephrase the question posed by Sandelowski et al. (1997, p. 366), ‘how do you sum up a poem’, to include studies employing phenomenography? (Sandelowski et al., 1997). The philosophical orientations of qualitative methodologies vary, and particularly for phenomenography which focuses on understanding variations, it remains unclear whether studies employing this approach can be considered candidates for meta-synthesis alongside other qualitative studies. Jensen and Allen (1996) have previously queried whether qualitative meta-synthesis should include and synthesize across approaches (Jensen & Allen, 1996). A potential solution offered was to carry out concurrent syntheses across the studies employing the same methodology and then ‘triangulate’ the findings (Finfgeld-Connett, 2010). However, considering the contrast between phenomenography and the other qualitative designs regarding their outcomes, it is unclear whether triangulation can help to resolve the epistemological, ontological and methodological tensions completely. This concern may suggest that unlike the traditional approach to meta-synthesis that includes studies employing varying qualitative designs, it is possible to have a meta-synthesis that limits itself only to phenomenographic studies. For instance, a meta-synthesis that sought to understand and describe patients' experiences of chronic illness included only phenomenographic studies (Röing & Sanner, 2015). This trend has been noted in other meta-synthesis which included only studies employing phenomenography (Lindquist et al., 2010; Röing et al., 2018). Other studies have also included phenomenographic studies alongside the pool of studies which employed other qualitative methodologies (Hatthakit, 2012; Sebrant & Jong, 2021). Regardless of the approach taken, more guidance

is warranted to ensure that ontological, epistemological and methodological underpinnings are not violated.

The use of bracketing in phenomenography is worth mentioning. Bracketing involves the researcher suspending their ideas and attempting to stay neutral as much as practically possible (Dörfler & Stierand, 2021; Hajar, 2021). Bracketing is associated with Husserl (1999) and distinguishes descriptive phenomenology from hermeneutic phenomenology (Dörfler & Stierand, 2021). As argued by Husserl (1999), bracketing is not to ‘doubt the existence of things’ but to ‘disconnect from them’ to maintain the ‘objectivity’ of the interpretations (Husserl, 1999). Undoubtedly, phenomenography emerged from pedagogy (i.e., learning and teaching) which may make it easy to apply the principle of bracketing. In nursing, however, its application cannot be limited to nursing education as shown in the exemplars presented earlier. In an instance where a researcher has also experienced the phenomenon under investigation, it remains unclear how bracketing will proceed. This is critical considering the nondualist ontological assumption of phenomenography which rejects the notion of separation between the phenomenon and the persons who experience it (Marton, 1981, 1986, 1988). Thus, if the researcher who has experienced the phenomenon is required to undertake ‘bracketing’, does it imply the ontological assumption does not apply to the researcher? Perhaps, this may represent an avenue for the potential emergence of a variant of phenomenography that permits the researcher to use their ‘preunderstanding’ in the analytic process to achieve the so-called ‘fusion of horizons’ (Clark, 2008; Gadamer, 1981). This assertion may align with what has been termed as ‘hermeneutic phenomenography’ (Hasselgren & Beach, 1997) which presents an avenue for further work, particularly regarding phenomena of interest to the discipline of nursing.

CONCLUSIONS

The qualitative tradition represents a diverse range of methodologies with unique philosophical positionings. In contrast with the established approaches, phenomenography with its roots in pedagogy presents a unique approach to examining qualitatively different ways that individuals experience and understand a phenomenon. Despite its unique stance, the uptake of phenomenography in nursing has been rather slow with some studies reporting confusion with phenomenology. This methodological paper highlights the potential contribution of phenomenography to the study of both established and new phenomena relevant to nursing. It goes on to provide methodological guidance to stimulate further scholarly discourse and encourage nurses to take advantage of this approach to advance the frontiers of phenomena relevant to nursing. More work is warranted to ground phenomenography in nursing and explore its application further.

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CONFLICT OF INTEREST STATEMENT

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