

Review Article

Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study

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Abstract

Qualitative content analysis and thematic analysis are two commonly used approaches in data analysis of nursing research, but boundaries between the two have not been clearly specified. In other words, they are being used interchangeably and it seems difficult for the researcher to choose between them. In this respect, this paper describes and discusses the boundaries between qualitative content analysis and thematic analysis and presents implications to improve the consistency between the purpose of related studies and the method of data analyses. This is a discussion paper, comprising an analytical overview and discussion of the definitions, aims, philosophical background, data gathering, and analysis of content analysis and thematic analysis, and addressing their methodological subtleties. It is concluded that in spite of many similarities between the approaches, including cutting across data and searching for patterns and themes, their main difference lies in the opportunity for quantification of data. It means that measuring the frequency of different categories and themes is possible in content analysis with caution as a proxy for significance.

Key words

content analysis, nursing, qualitative descriptive research, thematic analysis.

INTRODUCTION

In health care, qualitative methodologies aim to explore complex phenomena encountered by nurses, other providers, policy makers, and patients (Denzin & Lincoln, 2000; Sandelowski & Barroso, 2003a; Tong *et al.*, 2007). The philosophy and the basic principles of methodologies, study aims and questions, and designs and data gathering criteria provide key differences between qualitative and quantitative methodologies (Ayres, 2007a). A belief in multiple realities, a commitment to identifying an approach to in-depth understanding of the phenomena, a commitment to participants' viewpoints, conducting inquiries with the minimum disruption to the natural context of the phenomenon, and reporting findings in a literary style rich in participant commentaries are the main characteristics of qualitative methodologies (Streubert Speziale & Carpenter, 2007).

Qualitative methodologies consist of the philosophical perspectives, assumptions, postulates, and approaches that researchers employ to render their work open to analysis, critique, replication, repetition, and/or adaptation and to choose research methods. In this respect, qualitative methodologies refer to research approaches as the tools with which

researchers design their studies, and collect and analyse their data (Given, 2008). Qualitative methodologies are not a single research approach, but different epistemological perspectives and pluralism have created a range of "approaches" such as grounded theory, phenomenology, ethnography, action research, narrative analysis, and discourse analysis.

Qualitative research in the field of health has, at times, been undertaken without identification of the specific methodology used. The term "approach" is used in this article to differentiate it from the narrower term "methods." This indicates a coherent epistemological viewpoint about the nature of enquiry, the kind of knowledge discovered or produced, and the kind of strategies that are consistent with this (Giorgi, 1970; Holloway & Todres, 2005).

Qualitative approaches share a similar goal in that they seek to arrive at an understanding of a particular phenomenon from the perspective of those experiencing it. Therefore, the researcher needs to determine which research approach can answer their research questions (Streubert Speziale & Carpenter, 2007). There is a considerable overlap among available qualitative approaches in terms of methods, procedures, and techniques. Such an overlap of epistemological, aesthetic, ethical, and procedural concerns can encourage a generic view of qualitative research, considering it a "family" approach in which the similarities are more important than the differences, and where the notion of flexibility becomes an important value and quest. However, there is another point of view, concerned with how such flexibility can lead to inconsistency and a lack of coherence (Holloway &

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Conflict of interest: None.

Received 20 March 2012; revision received 30 December 2012; accepted 28 January 2013.

Todres, 2003). It should not be forgotten that consumers of research assess the quality of evidence offered in a study by evaluating the conceptual and methodological decisions the researchers have made. Therefore, the researcher needs to make good decisions to produce evidence of the highest possible quality (Polit & Beck, 2003; Høye & Severinsson, 2007).

Aim

Nurse researchers need to delineate and recognize the characteristics of the approach they are going to use in their studies to improve validity, and the consistency between the purpose of the study and the method of data analysis. Therefore, this article describes and discusses the boundaries between two commonly used qualitative approaches, content analysis and thematic analysis, and presents implications to improve the consistency between the purpose of studies and the related method of data analysis.

FINDINGS

This article continues with a classification of content analysis and thematic analysis as descriptive qualitative approaches to data analysis, and an analytical overview and comparative discussion of the approaches' definitions, aims, philosophical background, and data analysis process. Figure 1 summarizes the comparison of the main characteristics of thematic analysis and content analysis in the continuum of qualitative research.

Content analysis and thematic analysis as qualitative descriptive approaches

According to Sandelowski and Barroso (2003b) research findings can be placed on a continuum indicating the degree of transformation of data during the data analysis process from description to interpretation. The use of qualitative descriptive approaches such as descriptive phenomenology, content analysis, and thematic analysis is suitable for researchers who wish to employ a relatively low level of interpretation, in contrast to grounded theory or hermeneutic phenomenology, in which a higher level of interpretive complexity is required. It is noted that there are different views with respect to the meaning of description and interpretation in qualitative research, depending on the methodological approach. Many researchers believe that both descriptive and interpretative approaches entail interpretation, even if the interpretive component is downplayed or masked in discussions of its broader narrative and exploration (Sandelowski, 2010). The value of qualitative description lies not only in the knowledge that can originate from it, but also because it is a vehicle for presenting and treating research methods as living entities that resist simple classification, and can result in establishing meaning and solid findings (Giorgi, 1992; Holloway & Todres, 2005; Sandelowski, 2010).

Nursing researchers frequently use qualitative content analysis and thematic analysis as two analysis approaches in the qualitative descriptive study. However, because the boundaries and the division between the two have not been

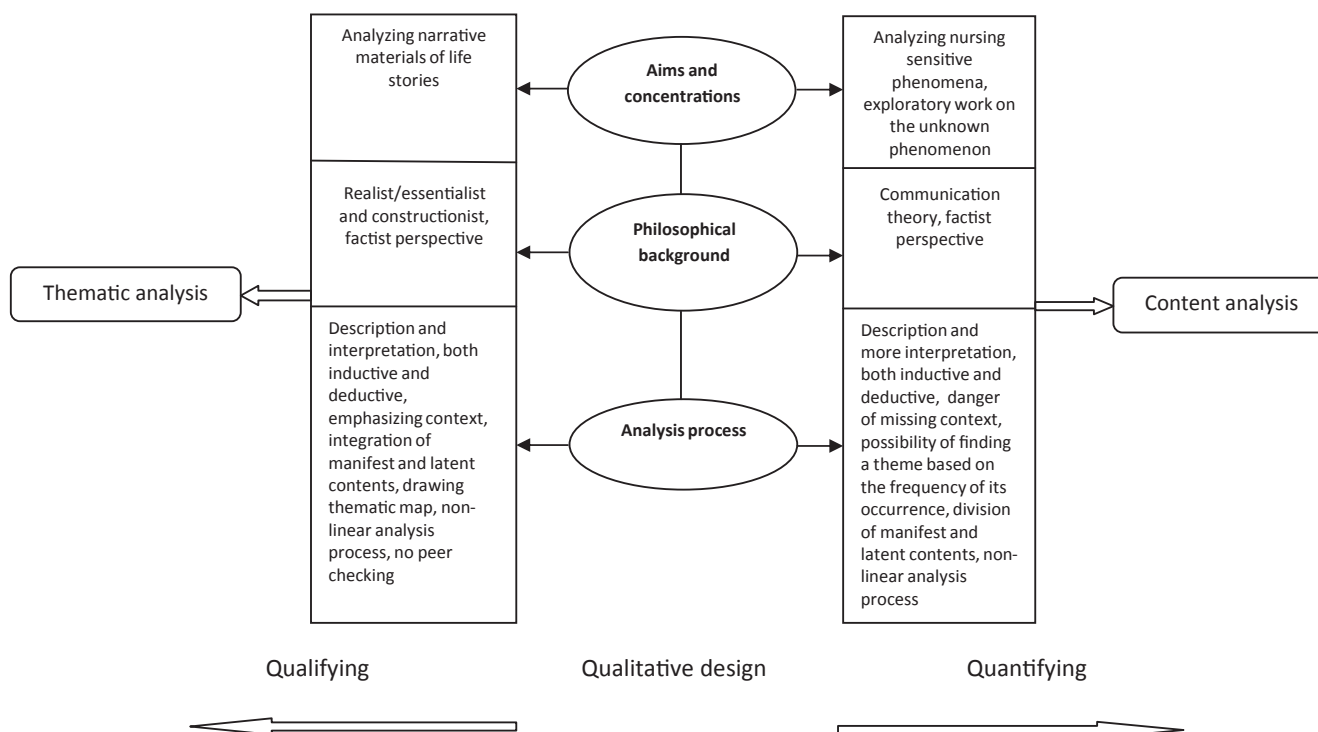


Figure 1. Main characteristics of thematic analysis and qualitative content analysis in the continuum of the qualitative methodology.

clearly specified, they are often used interchangeably and there is confusion about their similarities and differences (Sandelowski & Leeman, 2012), as well as how researchers should choose between them (Braun & Clarke, 2006). For instance, it has not been uncommon to find that qualitative content analysis is classified as a type of narrative analysis (Sandelowski & Barroso, 2003a; Sparker, 2005). Similarly, thematic analysis has sometimes been introduced as one part of phenomenology (Holloway & Todres, 2005) or even simply ignored in textbooks of qualitative methods. Additionally, a lack of consistency and the absence of a clear boundary between thematic analysis and qualitative content analysis, and other analytical qualitative approaches, have resulted in the application of titles such as “phenomenological thematic analysis” (Sandelowski & Barroso, 2003a) or “thematic content analysis” (Green & Thorogood, 2004). Interestingly, much of the analysis presented in published papers is essentially thematic, but is either described as something else such as content analysis or simply not identified as a particular method. For instance, it has been stated that data were subjected to qualitative analysis for commonly recurring themes (Braun & Clarke, 2006), or there is a lack of identification of the explicit methodological orientation (Sandelowski & Barroso, 2003b). Also, some researchers merely describe the use of qualitative data gathering techniques, such as interviews and focus groups, and not enough effort is made to qualify individual elements of methods other than signaling the data analysis process as either content or thematic analysis (Sandelowski & Barroso, 2003b). In this respect, there is a need to clarify and introduce methodological approaches rarely identified as independent methods (Sandelowski, 2010).

Definition of content analysis and thematic analysis

Content analysis is a general term for a number of different strategies used to analyse text (Powers & Knapp, 2006). It is a systematic coding and categorizing approach used for exploring large amounts of textual information unobtrusively to determine trends and patterns of words used, their frequency, their relationships, and the structures and discourses of communication (Mayring, 2000; Pope *et al.*, 2006; Gbrich, 2007).

The purpose of content analysis is to describe the characteristics of the document's content by examining who says what, to whom, and with what effect (Bloor & Wood, 2006). On the other hand, thematic analysis often is seen as a poorly branded method, in that it does not appear to exist as a named method of analysis in the same way that content analysis does. Thematic analysis as an independent qualitative descriptive approach is mainly described as “a method for identifying, analysing and reporting patterns (themes) within data” (Braun & Clarke, 2006: 79). It has also been introduced as a qualitative descriptive method that provides core skills to researchers for conducting many other forms of qualitative analysis. In this respect, qualitative researchers should become more familiar with thematic analysis as an independent and a reliable qualitative approach to analysis.

Aim and focus of data analysis

It seems that both content analysis and thematic analysis share the same aim of analytically examining narrative materials from life stories by breaking the text into relatively small units of content and submitting them to descriptive treatment (Sparker, 2005). Both content and thematic analysis approaches are suitable for answering questions such as: what are the concerns of people about an event? What reasons do people have for using or not using a service or procedure? (Ayres, 2007b). Content analysis is well-suited to analyse the multifaceted, important, and sensitive phenomena of nursing (Elo & Kyngäs, 2008; Vaismoradi *et al.*, 2011). If conducting exploratory work in an area where not much is known, content analysis may be suitable for the simple reporting of common issues mentioned in data (Green & Thorogood, 2004). It has been suggested that thematic analysis, as a flexible and useful research tool, provides a rich and detailed, yet complex, account of the data (Braun & Clarke, 2006). Clearly, thematic analysis involves the search for and identification of common threads that extend across an entire interview or set of interviews (DeSantis & Noel Ugarriza, 2000).

It should be noted that both approaches allow for a qualitative analysis of data. By using content analysis, it is possible to analyse data qualitatively and at the same time quantify the data (Gbrich, 2007). Content analysis uses a descriptive approach in both coding of the data and its interpretation of quantitative counts of the codes (Downe-Wamboldt, 1992; Morgan, 1993). Conversely, thematic analysis provides a purely qualitative, detailed, and nuanced account of data (Braun & Clarke, 2006).

Philosophical backgrounds

When qualitative approaches are introduced in qualitative research textbooks, each approach is discussed in the context of its historical and philosophical background (Streubert Speziale & Carpenter, 2007). Generally, qualitative approaches share a broad philosophy, such as person-centeredness, and a certain open-ended starting point (Holloway & Todres, 2003).

Communication theory has been introduced as a way to address the issue of interpretation and to clarify the underlying assumptions of content analysis (Graneheim & Lundman, 2004). Thematic analysis can be conducted within both realist/essentialist and constructionist paradigms, although the outcome and focus will be different for each (Braun & Clarke, 2006). It has also been noted that both approaches are largely based on the “factist” perspective. A factist perspective assumes data to be more or less accurate and truthful indexes of the reality out there (Sandelowski, 2010). In other words, the researcher wants to find out about the actual behaviour, attitudes, or real motives of the people being studied, or to detect what has happened (Ten Have, 2004).

According to Sandelowski (2010), a lot of energy is spent focusing on philosophical details, which often have little or nothing to do with what the researchers actually do.

However, the philosophical starting points of the study should not be forgotten when seeking differences and similarities in the approaches (Bondas & Hall, 2007). The actual implementation of the methods and understanding their subtleties in the data analysis process should receive greater attention from nurse educators and qualitative researchers.

Exploration of the data analysis process

Both content analysis and thematic analysis are used in nursing studies. Nevertheless, a scarcity of information about the process of data analysis in nursing literature has resulted in a diversity of perspectives on how the approaches are used in research practice (Braun & Clarke, 2006; Elo & Kyngäs, 2008). A unified and standard data analysis protocol is preferred to be implemented by all researchers, because different results may be produced if different protocols are followed (Gbrich, 2007).

Regarding the data analysis process, different research approaches can be compared based on aspects such as “description and interpretation,” “modalities of approaches,” “consideration of context of data,” “data analysis process,” and “evaluation of the analysis process.”

Description and interpretation

When using content analysis, the primary aim is to describe the phenomenon in a conceptual form (Elo & Kyngäs, 2008). The content analyst views data as representations not of physical events but of texts, images, and expressions created to be seen, read, interpreted, and acted on for their meanings, and must therefore be analyzed with such uses in mind (Krippendorff, 2004). However, it has been claimed that content analysis in nursing research can be applied to various levels of interpretation (Graneheim & Lundman, 2004). In contrast, thematic analysis applies minimal description to data sets, and interprets various aspects of the research topic (Braun & Clarke, 2006).

Modalities of approaches

The current application of both content analysis and thematic analysis similarly, is associated with two modalities: inductive and deductive. Inductive content analysis and thematic analysis is used in cases where there are no previous studies dealing with the phenomenon, and therefore the coded categories are derived directly from the text data (Hsieh & Shannon, 2005). A deductive approach is useful if the general aim of thematic analysis and content analysis is to test a previous theory in a different situation, or to compare categories at different periods (Hsieh & Shannon, 2005; Elo & Kyngäs, 2008). This form tends to provide a less rich description of the data overall, and a more detailed analysis of some aspect of the data (Braun & Clarke, 2006). It should be noted that both the approaches may begin with a theory about the target phenomenon or a framework for collecting or analysing data, but that does not mean there is a commitment to stay within this theory or framework (Sandelowski, 2010). The question of whether a study needs to use an induc-

tive or directed approach can be answered in both methods by matching the specific research purpose and the state of science in the area of interest to the appropriate analysis technique (Hsieh & Shannon, 2005).

Consideration of context of data

Every analysis requires a context within which the available texts are examined. The researcher must construct a world in which the texts make sense allowing them to answer research questions (Krippendorff, 2004). The researcher, who has a broader understanding of the context influencing the stories of the study participants, may develop a wider understanding of what is going on, in addition to the understanding that she or he may share with those participating in the research (Downe-Wamboldt, 1992). Both approaches provide researchers with a framework of analysis within which the context of data is apparent. Certainly, content analysis makes sense of what is mediated between people including textual matter, symbols, messages, information, mass-media content, and technology supported social interactions (Krippendorff, 2004; Hsieh & Shannon, 2005). On the other hand, thematic analysis is able to offer the systematic element characteristic of content analysis, and also permits the researcher to combine analysis of their meaning within their particular context (Loffe & Yardley, 2004).

If in content analysis only the frequency of codes is counted to find significant meanings in the text, there is the danger of missing the context (Morgan, 1993). Therefore, researchers employing content analysis are sometimes accused of removing meaning from its context. The problem is that a word or coding category may occur more frequently in the speech of one person or group of people than another for different reasons. Frequent occurrence could indicate greater importance, but it might simply reflect greater willingness or ability to talk at length about the topic (Loffe & Yardley, 2004; Shields & Twycross, 2008).

Data analysis process

Like other qualitative methods, gathering and analysing data are conducted concurrently in descriptive qualitative approaches, thus adding to the depth and quality of data analysis. However, it is also common to collect all the data before examining it to determine what it reveals (Chamberlain *et al.*, 2004).

The process of data analysis in content analysis according to Elo and Kyngäs (2008), and in thematic analysis according to Braun and Clarke (2006) is shown in Table 1. According to the table, the preparation phase in content analysis and the phase of familiarizing with data in thematic analysis are equivalent. In both phases, the researcher is expected to transcribe the interview, and obtain the sense of the whole through reading the transcripts several times. While the thematic analysis researcher is mainly advised to consider both latent and manifest content in data analysis, the content analyst can choose between manifest (developing categories) and latent contents (developing themes) before proceeding to the next stage of data analysis. Open coding,

Table 1. Processes of data analysis in thematic analysis and qualitative content analysis

Analysis phases and their descriptions	
Thematic analysis (Braun & Clarke, 2006: 87)	Content analysis (Elo & Kyngäs, 2008: 110)
<i>Familiarising with data</i> Transcribing data, reading and rereading the data, noting down initial ideas.	<i>Preparation</i> Being immersed in the data and obtaining the sense of whole, selecting the unit of analysis, deciding on the analysis of manifest content or latent content.
<i>Generating initial codes</i> Coding interesting features of the data systematically across the entire data set, collating data relevant to each code.	<i>Organising</i> Open coding and creating categories, grouping codes under higher order headings, formulating a general description of the research topic through generating categories and subcategories as abstracting.
<i>Searching for themes</i> Collating codes into potential themes, gathering all data relevant to each potential theme.	
<i>Reviewing themes</i> Checking if the themes work in relation to the coded extracts and the entire data set, generating a thematic map.	
<i>Defining and naming themes</i> Ongoing analysis for refining the specifics of each theme and the overall story that the analysis tells, generating clear definitions and names for each theme.	
<i>Producing the report</i> The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a report of the analysis.	<i>Reporting</i> Reporting the analysing process and the results through models, conceptual systems, conceptual map or categories, and a story line.

collecting codes under potential subcategories/subthemes or categories/themes, and comparing the emerged coding's clusters together and in relation to the entire data set comprise the next stage of data analysis, which is named the organizing phase in content analysis. The same set of analytical interventions used in content analysis is applied in thematic analysis under the classifications of generating initial codes, defining and naming themes, reviewing themes, and searching for themes.

The final stage of data analysis in both approaches is related to reporting the result of the previous stages. This stage is especially highlighted as the final opportunity of data analysis in thematic analysis. In addition, in both approaches, the creativity of the researcher for presenting the result in terms of a story line, a map, or model is encouraged.

It is noted that in both approaches, high quality data analysis depends on gathering high quality data. It is the responsibility of researchers to conduct data gathering in such a way that any complex data would be suitable to present interesting findings. After data gathering and transcribing and paying particular attention to respondents' emotions besides their behaviours, it is recommended that the data analyst immerses himself/herself in data in order to obtain the sense of the whole through reading and rereading (Polit & Beck, 2003).

As mentioned previously, there are many similarities between the processes of data analysis presented at the different stages. The terminology used during the data analysis process in the approaches is comparable and equivalent to each other (Table 1). Data corpus, data item, data extract, code, and theme in thematic analysis are equivalent in

content analysis to the unit of analysis, meaning unit, condensed meaning unit, code, and category/theme, respectively (Graneheim & Lundman, 2004; Braun & Clarke, 2006; Elo & Kyngäs, 2008).

The final product of analysis, namely the tool for presenting findings, is much debated in both content and thematic analyses. At the most abstract level, emergence of the theme/themes can be considered to be the result or final product of data analysis. The term theme has been associated with many definitions and is used interchangeably with a vast number of other terms such as category, domain, unit of analysis, phase, process, consequence, and strategy (DeSantis & Noel Ugarriza, 2000). In this respect, there is considerable diversity in nursing and qualitative research literature associated with the identification of themes, the interpretation of the concept, and its function in data analysis (DeSantis & Noel Ugarriza, 2000). A theme is defined as a coherent integration of the disparate pieces of data that constitute the findings (Sandelowski & Leeman, 2012). It captures something important about data in relation to the research question, and represents some level of response pattern or meaning within the data set (Braun & Clarke, 2006). A pragmatic way to state the difference between a theme and a category is that the latter refers mainly to a descriptive level of content and can thus be seen as an expression of the manifest content of the text, whilst the former is the expression of the latent content (Graneheim & Lundman, 2004). Especially in thematic analysis, themes are usually quite abstract, and therefore difficult to identify (DeSantis & Noel Ugarriza, 2000; Spencer *et al.*, 2003). Furthermore, in thematic analysis the

importance of a theme is not necessarily dependent on quantifiable measures, but rather on whether it captures something important in relation to the overall research question (Spencer *et al.*, 2003; Braun & Clarke, 2006). The latter perspective is different from the current idea in content analysis, where it is possible to reach a theme based on the frequency of its occurrence in the text. This approach is objective, systematic, and concerned with the surface meaning of the document rather than hidden agenda (Bloor & Wood, 2006).

One of the first decisions that should be taken when conducting content analysis is whether to concentrate analysis on the manifest or latent content of data. It is said that both manifest and latent content deal with interpretation, but the interpretation varies in depth and level of abstraction (Graneheim & Lundman, 2004; Powers & Knapp, 2006). In contrast, thematic analysis incorporates both manifest and latent aspects. It means that the analysis of latent content of data is an inseparable part of the manifest analysis approach (Braun & Clarke, 2006).

Another characteristic of data analysis in thematic analysis is drawing a thematic map. This refers to the visual presentation of themes, codes, and their relationships, involving a detailed account and description of each theme, their criteria, exemplars and counter examples, and other similar details. As one part of data analysis, it helps with reviewing themes and achieving the aim of identifying coherent but distinctive themes (Ryan & Bernard, 2000; Braun & Clarke, 2006). It should not be forgotten that data analysis processes in both approaches are not linear, simply moving from one phase to another phase, but should be recursive with frequent reviews. In addition, the result should be the identification of a story, which the researcher tells about the data in relation to the research question or questions.

Evaluation of the analysis process

Evaluating the validity or rigour of a qualitative study requires reviewers to distinguish between researchers' errors during data analysis (Sandelowski & Barroso, 2003a). One criticism that has been leveled in all qualitative approaches is that they lack the scientific rigour and credibility associated with traditionally accepted quantitative methods. It means that the quantitative inquiry is assumed to occur within a value-free framework and which rely on the measurement and analysis of causal relationships between variables (Horsburgh, 2003). Scientific qualitative research must yield valid results, in the sense that the research effort is open for careful scrutiny and it should be possible for any resulting claims to be upheld in the face of independently available evidence (Krippendorff, 2004). As an unavoidable part of all qualitative approaches, both researchers and readers should be helped to look for alternative interpretations. Credibility, dependability, confirmability, and transferability are the most common measures to achieve rigour in qualitative studies (Lincoln & Guba, 1985). Although the assessment of rigour in content and thematic analysis shares many similarities, some differences emphasize the separate and unique identities of each approach. For instance, intercoder reliability (analogous to interrater reliability) refers to the extent to

which more than one coder independently classifies material in the same way as peer researchers. It is commonly used in content analysis and has been introduced as a measure for improving the approach's reliability (Cavanagh, 1997). However, because of the pure qualitative nature of thematic analysis, peer checking of intercoder reliability is not always possible since there is scepticism about the value of such testing. It has been discussed that one researcher merely trains another to think as she or he does when looking at a fragment of text. Thus, the reliability check does not establish that codes are objective, and merely two people can apply the same subjective perspective to the text (Loffe & Yardley, 2004). As a practical way to improve rigour in both approaches, researchers are encouraged to maintain a personal research diary. As a word of caution, the status of these additional materials in relation to raw data or field notes is sometimes unclear, as is the way in which they are expected to contribute to any interpretation. A conscious decision is made to include and code personal memoranda alongside field notes, and the same coding scheme is used for both types of data (Ballinger *et al.*, 2004; Rolfe, 2006). Finally, one of the best ways for judging the quality of findings is whether new insights into the studied phenomenon have been provided; if so, the study should have increased the understanding of particular phenomena or informed practical actions (Krippendorff, 2004).

DISCUSSION

A comparative overview of the differences and similarities between the approaches of content analysis and thematic analysis was presented in order to help qualitative researchers choose the appropriate approach to answer their study questions and conduct a methodologically robust study. A limited number of publications about the two approaches were available to be consulted for an in-depth comparison. However, the chosen references are central to this area of nursing research.

While the two approaches can answer the same set of research questions, some researchers are suspicious about the strength of both content analysis and thematic analysis in terms of providing high quality data as exploratory qualitative research. However, the authors believe that the approaches are robust enough to be used for conducting an introductory study on a novel phenomenon, for which the quality of its data depends on the amount of energy and time the researcher spends on the process of data gathering and analysis.

Furthermore, there is a stereotype among qualitative researchers that portrays content analysis and thematic analysis as the easiest research approaches within qualitative methodologies. The authors assume that as distinct and fundamental qualitative approaches, the two should be used by qualitative researchers at the beginning of their research careers. The approaches benefit from transparent structures that, with a defined sequence of analytical stages, provide researchers with clear and user-friendly methods for analyzing data.

Although the approaches are generally considered the most fundamental, this does not mean that they necessarily produce simple and low quality findings. In other words, it is possible that underlying themes/categories may not be immediately apparent, but the researcher needs to be reflective, frequently review the data from different perspectives, and follow the stages of data analysis (DeSantis & Noel Ugarriza, 2000).

In this paper, thematic analysis was introduced as an independent approach within the qualitative descriptive methodologies and its differences and similarities with content analysis were highlighted. It is emphasized that clarifying the boundaries between qualitative approaches may improve coherence and consistency in qualitative research (Holloway & Todres, 2003). Following and accurately describing the type of approach used in studies can provide a universal language for nurse researchers and strengthen the scientific base of any approach to research (Hsieh & Shannon, 2005). In this respect, there has recently been an effort to distinguish thematic analysis from content analysis, its most similar qualitative research approach (Braun & Clarke, 2006). Such a distinction between approaches brings clarity to the data analysis process, thus increases its rigour. An approach that is inexact and fits into different methodologies can be seen as merely a tool (Graneheim & Lundman, 2004). It is important for nurse researchers to delineate and recognize the characteristics of the approach they are going to use in their studies before beginning data analysis (Hsieh & Shannon, 2005).

CONCLUSION

Only a few papers are available in the nursing literature to introduce content analysis and thematic analysis. Therefore, it can be concluded that the approaches have not been completely described, and there are many unanswered questions about them. Moreover, both these research approaches should be clarified in relation to their epistemological roots and connections, which may settle researchers' debates on the meta-language and meaning of *category* and *theme*, and also result in their development of the qualitative research tradition.

In the field of qualitative research, there are overlaps between content analysis and thematic analysis. Thematic analysis is widely used, but there is no clear agreement about what thematic analysis is and how researchers should go about conducting it. Therefore, comparing the approach with content analysis, which is more familiar to nurse researchers may prove helpful in enhancing our understanding of it and defending it as a research approach in its own right.

In summary, in spite of many similarities between content and thematic analysis, for instance cutting across data, and searching for patterns and themes, their main difference lies in the possibility of quantification of data in content analysis by measuring the frequency of different categories and themes, which cautiously may stand as a proxy for significance. Thus, nursing researchers must address the specific

characteristics, differences, and similarities between content and thematic analysis to choose the appropriate research approach.

ACKNOWLEDGMENTS

University of Swansea, United Kingdom and University of Eastern Finland, Kuopio campus, Finland provided both financial support and facilities to make conducting this scholarly research project possible. Moreover, the authors would like to sincerely thank Immy Holloway, Professor Emeritus in the School of Health and Social Care at Bournemouth University, United Kingdom for her precious scientific support and comments throughout the review process.

CONTRIBUTIONS

Conception, Design and Drafting: MV, HT, and TB.
Critical Revisions and Final Document: HT and TB.

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