Clinical methods

Is verbatim transcription of interview data always necessary?

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Abstract

Verbatim transcription of interview data has become a common data management strategy in nursing research and is widely considered to be integral to the analysis and interpretation of verbal data. As the benefits of verbal data are becoming more widely embraced in health care research, interviews are being increasingly used to collect information for a wide range of purposes. In addition to purely qualitative investigations, there has been a significant increase in the conduct of mixed-method inquiries. This article examines the issues surrounding the conduct of interviews in mixed-method research, with particular emphasis on the transcription and data analysis phases of data management. It also debates on the necessity to transcribe all audiorecorded interview data verbatim, particularly in relation to mixed-method investigations. Finally, it provides an alternative method to verbatim transcription of managing audiorecorded interview data.

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1. Introduction

Interviews have been widely accepted as a common means of data collection in a range of health disciplines, including nursing, sociology, social work, and allied health, because they facilitate interactive dialogues between participants and researchers (Burnard, 1994a; Fasick, 2001; Fielding, 1994; Tashakkori & Teddlie, 2003; Wellard & McKenna, 2001). Given this relationship and the emphasis on exploration and inquiry of human phenomenon, interviews have traditionally been a method of data collection associated with the naturalistic (qualitative) paradigm (Halcomb & Andrew, 2005). More recently, however, interviews have become recognized for their broader application in biomedical and collaborative research. Although details regarding the management of interview data and the process of transcription are often poorly described in published research, many investigators report that they audiorecord interviews for subsequent analysis and then somehow transform these audiotaped data into written text (Poland, 1995; Wellard & McKenna, 2001). Although several articles discuss how to manage interview transcripts (Burnard, 1994b; McCormack, 2000), the contemporary literature provides limited direction and guidance regarding the specifics of the transcription process (Easton, McComish, & Greenberg, 2000; Fielding, 1994; Poland, 1995; Wellard & McKenna, 2001). This is a substantial gap in the literature considering the significance of the management of verbal data in the reliability and validity of the research process.

Although rarely explicitly defined, transcription refers to the process of reproducing spoken words, such as those from an audiotaped interview, into written text. In addition to spoken words, various authors have debated on the extent to which nonverbal cues (e.g., silences and body language) and emotional aspects (e.g., crying, coughs, and sighs) should be incorporated into transcribed text (MacLean, Meyer, & Estable, 2004; Wellard & McKenna, 2001). \textit{Verbatim transcription} refers to the word-for-word reproduction of verbal data, where the written words are an exact replication of the audiorecorded words (Poland, 1995). Poland (1995) asserted that “the very notion of accuracy of transcription is problematic given the inter-subjective nature of human communication, and transcription as an interpretative activity” (p. 292). The way in which interview content is both heard and perceived by a transcriber, however, plays a
Wellard & McKenna (2001) asserted that transcription forms part of the data analysis process and should be clearly disclosed in the methodology of a project. It is therefore essential for a transcription method that is congruent with the theoretical underpinnings of a specific investigation to be used. This observation identifies the potential to use alternate processes for managing verbal interview data other than conventional verbatim transcription techniques provided that they are consistent with the underlying philosophy of the methodology.

Initially, a review of the current literature relating to transcription and the use of interviews as a data collection strategy is presented. The cases for and against verbatim interview transcription are then discussed before an alternate strategy is proposed. The cases for and against verbatim transcription and the use of interviews as a data collection strategy are discussed regarding qualitative data collection strategies in biomedical research. It is therefore timely to investigate data management strategies that meet the needs of such research while maintaining the reliability and validity of the data obtained as part of the research process.

A review of research methods text identified that, although many mentioned the process of transcription as a means of converting the verbal data contained in an audiotape to text, few provided practical advice or a detailed description of the transcription process. A search of the index and content pages of these texts also revealed a substantial number of texts that discussed the interview method of collecting data and yet failed to refer to the transcription process.

To determine the extent of the current body of published literature relating to interview data management, we conducted a search of the CINAHL, PsychInfo, EMBASE, and MEDLINE databases between 1994 and 2004 using the search terms “data collection” or “interview” and “transcription” or “transcribe” for publications in the English language. Articles that purely identified that they had transcribed interview data during the analysis phase of their project were excluded. This identified 12 peer-reviewed articles that provided some level of discourse or theoretical discussion regarding the process of interview transcription or the management of audiotaped interview data (Burnard, 1994a; Easton et al., 2000; Fasick, 2001; Lapadat & Lindsay, 1999; Lindsay & O’Connell, 1995; MacLean et al., 2004; Poland, 1995; Sandelowski, 1994, 2000; Seale & Silverman, 1997; van Teijlingen & Ireland, 2003; Wellard & McKenna, 2001). Although some of these articles contained no more than a few lines discussing the process of transcription as part of a broader discourse of data management, 6 articles focused specifically on issues surrounding the transcription of audiotaped interview data (Easton et al., 2000; Fasick, 2001; MacLean et al., 2004; Poland, 1995; Sandelowski, 1994; Wellard & McKenna, 2001).

2. Current state of the literature

In the 10-year period between 1990 and 2000, there were 2,957 articles published in biomedical journals and indexed in the CINAHL, EMBASE, MEDLINE, and PsychInfo databases with the keyword “qualitative research.” Remarkably, when this search was repeated in the 5-year period between 2000 and 2004, there were 3,914 articles published. This demonstrates the significant increase in interest regarding qualitative data collection strategies in biomedical research. It is therefore timely to investigate data management strategies that meet the needs of such research while maintaining the reliability and validity of the data obtained as part of the research process.

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3. Types of research interviews

Although collecting data using interviews has traditionally been associated with purely qualitative research, data collection strategies are not always linked solely to a single research paradigm (Tashakkori & Teddlie, 2003). Fig. 1 shows how the underlying philosophical approach can effect variations in interview purpose, process, and technique. It can also be identified that although an interview will generate verbal data, the richness and depth of these data will vary according to the specific research design and the research question that the investigation is seeking to address. Pure qualitative research focuses on the exploration of values, meanings, beliefs, thoughts, experiences, and feelings characteristic of the phenomenon under investigation (Halcomb & Andrew, 2005). In this paradigm, data analysis techniques such as conversation, discourse, and narrative analysis rely on verbatim transcriptions of the data. In contrast, pure quantitative research uses closed-ended questions to provide structure for the interview and to compel participants to make choices between predetermined response categories. Therefore, the collected data are readily transposed into numerical rather than verbal data for subsequent management and analysis.

The term mixed-methods describes research that uses a combination of data collection and analysis procedures in either parallel or sequential phases (Tashakkori & Teddlie,
It has aims disparate from those of purely qualitative or quantitative research. Mixed-method research frequently uses qualitative data in conjunction with quantitative data to provide a sense of “confirmation” of the data through the enhancement of validity and confidence in the findings and a “completeness” of the understanding of the concept(s) under investigation (Halcomb & Andrew, 2005). It is the search for confirmation and completeness that Tashakkori & Teddlie (2003) identify as providing the research design with significant complexity and rigor. The nature of the research question being posed in this type of investigation is often clearly at a level of exploration different from that in pure qualitative research. The use of analysis techniques such as thematic or content analysis seeks to identify common ideas from the data and, therefore, does not necessarily require verbatim transcripts. Such an assertion is supported by several authors who have indicated that verbatim transcription is only one method of capturing verbal data (Seale & Silverman, 1997; Silverman, 1993; van Teijlingen & Ireland, 2003).

4. The case for verbatim transcription

A combination of verbatim transcription and researcher notation of participants’ nonverbal behavior has been cited as being central to the reliability, validity, and veracity of qualitative data collection (MacLean et al., 2004; Seale & Silverman, 1997; Wengraf, 2001). Although a few authors advocate the use of selective transcription, there is limited discussion or definition of how this is to actually be achieved (Gilbert, 1993). Within the current literature, authors fail to convincingly demonstrate how creating an exact written record of an interview is superior to other methods of managing interview data (Britten, 1995). In research underpinned by theoretical frameworks such as phenomenology, grounded theory, feminism, and ethnography, closeness between researchers and the text is critical to the research design and philosophical tenets of the methodology. Therefore, a verbatim record of the interview is clearly beneficial in facilitating data analysis by bringing researchers closer to their data. In the more generic mixed-method research, these relationships and degree of closeness between researchers and their data are not as critical.

The existence of verbatim transcripts can be beneficial in facilitating the development of an audit trail of data analysis by supervisors or independent persons. However, given the significant potential for errors in verbatim transcription (MacLean et al., 2004; Poland, 1995), it can be argued that such cross-checking should be undertaken from the original audiotape rather than the potentially error-laden written transcript (Fasick, 2001; Poland, 1995). In his discussion, Poland (1995) identified that as many as 60% of the passages transcribed by professional transcribers in his focus group investigation contained significant transcripter errors. Although there is limited evidence with which to compare these data, the significant questions that they raise about the overall transcript quality require careful consideration. Logically, it may be beneficial for researchers to transcribe their own interview data, given that they have first-hand knowledge from their involvement in the interview process, expertise in the interview subject, and the advantage of having participated in both verbal and nonverbal exchanges with the participants. However, these apparent benefits must be weighed against the advanced clerical skills required to undertake accurate transcription in a timely manner. The choice of who should undertake the transcription must therefore take these factors into consideration in addition to the theoretical underpinnings of the research design.

5. The case against verbatim transcription

The costs associated with interview transcription, in terms of time, physical, and human resources, are significant. Britten (1995) wrote that for every hour of taped interview, 6–7 hours of transcription is required. It is also widely accepted that the process of verbatim transcription is not only time consuming but also complex and fraught with technical dilemmas (Fasick, 2001; Wellard & McKenna, 2001). Whether researchers transcribe the tapes themselves or engage professionals, transcribers are still human (MacLean et al., 2004). As such, the process of transcription is open to a range of human errors, including misinterpretation of content, class, and cultural differences and language errors (Easton et al., 2000; Gilbert, 1993; MacLean et al., 2004). Such complexity adds considerable costs in terms of both time and resource consumption to the research process (Wellard & McKenna, 2001). Even the advent of modern technology, such as voice recognition software, has not been able to produce significant reductions in resource consumption (MacLean et al., 2004). Although qualitative data collection is generally accepted to be more time consuming and resource intensive than other methods of data collection (MacLean et al., 2004), these costs must be weighed against the potential benefits of obtaining a verbatim transcription in the data management and analysis process of interview data.

The use of written field notes taken either during an interview or immediately afterward has been reported as being superior to the exclusive use of audiorecordings that are subsequently verbatim transcribed (Fasick, 2001; Wengraf, 2001). Fasick (2001) asserted that although audiotapes provide an accurate record of the conversation, the difficulties inherent in verbatim transcription and coding reduce the value of such data collection. Even ardent qualitative researchers, such as Barney Glaser, assert the importance of memoing and field note writing to capture researchers’ thoughts and interpretations during the process of listening to audiorecordings (Wengraf, 2001). Considering that the process of transcription should be more about interpretation and generation of meanings from the data rather than being a simple clerical task, the need for verbatim transcription in every research project that generates verbal interview data must be questioned.
Although the benefits of using field notes have been highlighted, audiorecording interview data is also important for a number of reasons relating to both data management and analysis. First, recording interviews can facilitate review of the interviewers’ performance both by themselves at a later time and in consultation with supervisors or independent persons (Fasick, 2001). Second, audiorecordings can be beneficial in assisting interviewers to fill in blank spaces in their field notes and check the relationship between the notes and the actual responses (Fasick, 2001). This potentially reduces interviewer bias and allows interviewers to reflect on the conversation to ensure that the meanings conveyed by participants are adequately represented. The presence of audiorecordings can allow supervisors or independent persons to certify that interviews were actually conducted and that the data reported by a researcher are a true and accurate representation of the data obtained through the interview process. This avoids the potential burden of having to contact participants directly to verify data veracity. In addition, in cases where there is ambiguity of meaning or inconsistencies, researchers can refer to the audiorecording to clarify the intended meaning from the original source (Fasick, 2001). Having an original recording of the conversation allows researchers to recreate the nuances of the conversation, such as voice, tone, and the specific language of participants, which may assist in more complex analysis. Finally, reference back to the original recordings can provide researchers with examples to illustrate the study findings in the context of written reports and publications (Fasick, 2001).

6. An alternative method of data management

For investigations located in the middle of the spectrum of interview types that do not require a particular closeness between researchers and the verbal interview data, we propose a reflexive, iterative process of data management (Fig. 2). The steps in this process are described in the subsequent subsections.

6.1. Step 1: Audiotaping of interview and concurrent note taking

The combined process of audiotaping and making field notes during interviews is not new. Although there is a danger that note taking will disrupt the flow of an interview, the emphasis during this phase needs to be on the researchers’ impressions of an interaction rather than on recording verbatim sections of the participants’ response. The subsequent presence of the audiorecording will allow researchers to complete the participants’ response in greater detail following the interview process.

6.2. Step 2: Reflective journalizing immediately after an interview

As soon after the interview as possible, to ensure that reflections remain fresh, researchers should review their field notes and expand on their initial impressions of the interaction with more considered comments and perceptions. Reflections of the conduct of the interview and extraneous variables particular to the interaction should also be noted. Major ideas, concepts, or issues raised by participants should be documented.

6.3. Step 3: Listening to the audiotape and amending/ revising field notes and observations

After researchers have completed their field notes and reflective journalizing, the audiotape should be reviewed in consultation with the researchers’ notes. The purpose of this phase is to ensure that the notes provide an accurate reflection of the interaction. This may require researchers to listen to the audiotape several times, comparing it with the field notes and amending the notes until they provide a thorough and descriptive representation of the interaction. It may be prudent to make these editorial changes in a separate notation to distinguish them from the initial researchers’ perceptions should this become necessary.

6.4. Step 4: Preliminary content analysis

Once researchers are confident that their field notes accurately represent the interactions that occurred in each interview, the process of content analysis can be used to elicit common themes between interactions. The means by which content analysis can be undertaken are clearly beyond the scope of this article but may include manual methods of analysis or use of various software packages (e.g., NVivo).

6.5. Step 5: Secondary content analysis

The preliminary content analysis should be reviewed by a second research team member who has not previously been involved in the data collection by way of a thorough review of both audiotapes and field notes. This task

Step 1. Audio taping of interview and concurrent note taking
Step 2. Reflective journalizing immediately post-interview
Step 3. Listening to the audiotape & amending / revision of field notes & observations
Step 4. Preliminary content analysis
Step 5. Secondary content analysis
Step 6. Thematic Review

Fig. 2. Data management steps.
facilitates testing of the audit trail and validation of the development of themes from the data.

6.6. Step 6: Thematic review

This final stage involves reviewing the secondary content analysis, making any necessary change to established themes and relistening to the audiotapes to identify illustrative examples with which to demonstrate the meaning of the themes from the participants’ perspectives.

7. Implications for further research

It is undeniable that verbal data provide unique and valuable information to the investigation of health care. In spite of the increasing interest in the psychometric testing of patient-reported outcomes, many constructs such as quality of life, anxiety, and depression are inherently difficult to quantify. Furthermore, administration of a psychometric measure infers that a researcher is preempting the constructs and emotions of those under investigation. The implementation of the method proposed in this study will likely increase representation of values and beliefs in research and diminish criticisms around small sample size. We do not suggest this method as a “quick and dirty” method of data acquisition; neither do we undermine the importance of verbatim transcription in pure qualitative research, where closeness between researchers and their data is critical to the philosophical underpinnings of the methodology. We merely suggest this as a strategy to increase representation and the cost–effectiveness of data management, particularly in health services research and evaluation.

8. Conclusion

There is limited literature regarding the process of transcription of interview audiotapes in the health research literature despite a growth in the use of interviews as a method of data collection. As an important step in data management and analysis, the process of transcription must be congruent with the methodological design and theoretical underpinnings of each investigation. Although purist qualitative methodologies inherently require a high level of immersion of researchers in the meaning of the human experience being explored, interviews have a much wider scope as a method of data collection. In mixed-method investigations that use interviews as a means of data collection, the use of a reflexive, iterative process as has been described in this article represents a cost-effective, constructive, and theoretically sound process through which to manage verbal interview data. As the use of qualitative research in multidisciplinary, collaborative, health services research continues to expand, it is vital for researchers to openly debate alternative methods of managing data for different research purposes.

References

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