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Conducting secondary analysis of qualitative data: Should we, can we, and how?

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Abstract

While secondary data analysis of quantitative data has become commonplace and encouraged across disciplines, the practice of secondary data analysis with qualitative data has met more criticism and concerns regarding potential methodological and ethical problems. Though commentary about qualitative secondary data analysis has increased, little is known about the current state of qualitative secondary data analysis or how researchers are conducting secondary data analysis with qualitative data. This critical interpretive synthesis examined research articles ($n = 71$) published between 2006 and 2016 that involved qualitative secondary data analysis and assessed the context, purpose, and methodologies that were reported. Implications of findings are discussed, with particular focus on recommended guidelines and best practices of conducting qualitative secondary data analysis.

Keywords

Critical interpretive synthesis; systematic review; secondary data analysis; methodology

There has been increasing commentary in the literature regarding secondary data analysis (SDA) with qualitative data. Many critics assert that there are potential methodological and ethical problems regarding such practice, especially when qualitative data is shared and SDA is conducted by researchers not involved with data collection. However, less has been written on *how* sharing and SDA of qualitative data is actually conducted by scholars. To better understand this practice with qualitative research, this critical interpretive synthesis (CIS) appraised studies that have involved SDA with qualitative data, examining their context, analytical techniques, and methods applied to promote rigor and ethical conduct of research. Following this analysis, the strengths and weaknesses of such practice and strategies for promoting the advancement of science will be discussed in light of findings.

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The merits of sharing data for quantitative secondary analysis

SDA involves investigations where data collected for a previous study is analyzed – either by the same researcher(s) or different researcher(s) – to explore new questions or use different analysis strategies that were not a part of the primary analysis (Szabo and Strang, 1997). For research involving quantitative data, SDA, and the process of sharing data for the purpose of SDA, has become commonplace. Though not without its limitations, Hinds et al. (1997) argue that it is a “respected, common, and cost-effective approach to maximizing the usefulness of collected data” (p. 408). They describe four approaches to SDA: (1) research where SDA focuses on a different unit of analysis from that of the parent study; (2) research involving a more in-depth analysis of themes from the parent study with a subset of data from that study; (3) analyses of data from the parent study that appear important, but not sufficiently focused on in the primary analysis; and (4) analyses with a dataset that includes data from a parent study and newly-collected data that refines the parent study’s purpose or research questions (Hinds et al., 1997).

Scholars have also promoted the practice of sharing data for the purpose of SDA, asserting that it may answer new research questions, as well as increase sample sizes and statistical power (Perrino et al., 2013). Sharing data also allows for the generation of new knowledge without the costs of administration and implementation of additional data collection and maximizes the output of large-scale studies that are funded by public or private sources. Recognizing the value of sharing data, researchers and institutions have created an infrastructure to promote such practice by: making datasets more available through the process of archiving; making archived data available through a number of media, such as the internet, CD-ROMS, and other removable storage devices; and documenting and providing detailed information about the sampling, design, and data collection strategies from such parent studies so that researchers can better understand the qualities of the data they obtain for future use (Hox and Boeije, 2005; Perrino et al., 2013).

Concerns about secondary data analysis when using qualitative data

The primary concerns about SDA with qualitative data surround rigor and ethics from a number of stakeholder perspectives, including research participants, funders, and the researchers themselves. Heaton (2004) suggests that a strength of secondary analysis of qualitative data is that it relieves the burden of participation from research participants and community partners who collaborate with researchers to identify, access, and recruit research participants. However, we must also consider how SDA fits within guidelines for duplicate publishing of qualitative research (Morse, 2007) in an era of a quantity-driven publishing as one mark of scholarliness.

Debates regarding rigor in qualitative SDA.

Despite the demonstrated benefits from its practice in quantitative studies, sharing qualitative data for SDA has not been as widely promoted and even has received considerable criticisms in the literature. One criticism relates to the socio-cultural-political context under which qualitative studies are implemented. As highlighted by Walters (2009), qualitative research involves the collection and interpretation of subjective data that often is

shaped by the social, cultural, and political realities that are evident at the time of data collection. When such data are re-analyzed or reinterpreted during another time period, the changes in social, cultural and/or political norms may result in investigators exploring research questions or utilizing analysis strategies that are inappropriate or they may misinterpret the original data. Mauthner et al. (1998) assert that the process of re-analyzing data can be different even for researchers who are revisiting their own data that was collected at an earlier time. However, they also report that some researchers may find benefits to this process. For instance, some researchers may find themselves less emotionally invested in the data and therefore more objective, though, other researchers may find this emotional distance to result in less immersion in the data. Thorne (1994) has provided a number of approaches to increasing rigor in SDA, such as audit trails and critical and reflective constant comparison. However, it is unclear the extent to which such practices actually overcome challenges that compromise qualitative SDA, such as inappropriate coding and interpretation of data and/or lack of first-hand knowledge of data by SDA researchers (Thorne, 1994).

Debates regarding ethics in qualitative secondary data analysis.

In addition to questions of methodological rigor, there are criticisms regarding ethical dilemmas posed by SDA of qualitative data. Many criticisms center on basic questions of research ethics – the risks to informed consent, confidentiality, and anonymity when such data are archived and/or shared (Morrow et al., 2014). For instance, Parry and Mauthner (2004) argue that the in-depth nature of qualitative data may pose particular challenges to de-identifying data for the purpose of archiving it for shared use. The descriptiveness of the data alone may allow others to identify respondents, while removing such descriptors may compromise the quality of the data.

There are also arguments that qualitative data is not created by researchers alone – they represent the “joint endeavor between respondent and researcher” and therefore allowing other researchers to re-use data poses significant ethical and legal dilemmas by disregarding the respondent’s ownership of the data (Parry and Mauthner, 2004: 142). Parry and Mauthner (2004) write that the collaborative effort of creating qualitative data also poses ethical dilemmas for qualitative researchers, who often offer personal information to respondents in an attempt to develop rapport. Therefore, they risk breeches in anonymity/confidentiality when such data are shared for future use.

Purpose of critical interpretive synthesis

To date, there has been increasing dialogue and controversy surrounding the practice of SDA with qualitative data. However, few studies have examined how qualitative SDA is being conducted or guidelines on conducting such investigations with high amounts of rigor and ethics. To address this issue, a CIS of studies identified as having qualitative SDA as a methodology was undertaken to address the following questions:

1. What is the extent and context under which SDA is conducted with qualitative data?

2. What are common approaches and purposes for conducting SDA with qualitative data?
3. In what ways do researchers maintain rigor and ethics in qualitative SDA? and
4. What limitations in qualitative SDA have been identified in practice?

Methodology

Although systematic reviews are commonly used to synthesize quantitative studies on a specific topic, Dixon-Woods et al. (2006) argue that the nature of systematic reviews and their focus on examining studies that emphasize testing theories is inappropriate when different types of evidence are being synthesized and/or there is a need for interpretation of studies. This review involved a CIS of literature that was identified through multiple search strategies. CIS differs from quantitative systematic reviews in several ways: (1) it uses broad review questions to guide the identification and analysis of studies, rather than specific hypotheses; (2) it relies on sources other than bibliographic databases to identify studies for inclusion; (3) it does not use a preconceived hierarchy of methods to guide study inclusion (e.g. only including randomized control trials, due to their perceived higher level of rigor); and (4) it uses ongoing inductive and interpretive strategies in the identification and analysis of studies, which may result in ongoing revision to the guiding review questions or revisiting search criteria and/or strategies (Dixon-Woods et al., 2006). CIS differs from meta-ethnography in that the latter involves a more interpretive way of linking ethnographic findings from multiple studies, often on a specific topic (Flemming, 2010). By contrast, the current analysis involves the interpretation and comparison of context and methodologies of studies focused on a wide variety of topics.

Eligibility criteria

This CIS identified and assessed research published in peer-reviewed, scholarly journals between the years 1996 and 2016. They also had to meet the following inclusion criteria: (a) involving analysis of data derived through qualitative methodologies; (b) research involving social or health-related research with human subjects; (c) use of SDA or repurposing of parent study data for subsequent analysis; and (d) research published in English. For the purpose of time sensitivity, unpublished dissertations were excluded from the final review. Given prior assertions that not all qualitative studies using SDA are identified as being such (Hinds et al., 1997), the researchers cast a wide net and did not impose any additional exclusion criteria based on the perceived quality or approach to methodology, analysis, or focus area (Dixon-Woods et al., 2006; Walsh and Downe, 2005).

Sources and process of search

Studies were identified between May and June of 2016 (see figure 1) by searching through the following eight databases: Expanded Academic ASAP, EBSCO Host, PsychInfo, PubMed, Social Services Abstracts, Social Work Abstracts, Sociological Abstracts, and Web of Science. The titles and/or abstracts were reviewed for more than 10,373 results that were yielded from the initial search. For each database, a search was conducted using combinations of the following search terms: qualitative research OR qualitative analysis OR

qualitative study AND secondary data analysis OR secondary analysis OR combining data* OR sharing data* OR integrating data* OR two studies OR two field studies. Among these studies, 76 unduplicated studies were selected for full-text review. A second search strategy took place in September of 2016, where peer-reviewed journals that are dedicated to qualitative research and have impact factors (International Journal of Qualitative Methods, Qualitative Health Research, Qualitative Inquiry, Qualitative Research, Qualitative Social Work, and Qualitative Sociology) were searched. This subsequent search yielded 49 additional articles selected for full-text review. Among the 125 articles that were fully-reviewed, 54 did not meet the inclusion criteria and were excluded from the final analysis.

Appraisal of studies

The approach for appraising the included studies were derived from a number of recommendations in the literature (Barnett-Page and Thomas, 2009; Schoenberg and McAuley, 2007; Walsh and Downe, 2005). Given that the current CIS focuses on an analysis of context and methodologies, rather than the findings of qualitative research on a specific topic, the appraisal of primary studies focused on the inclusion, description, and comparison/contrast of methods across the following categories:

- **Relationship of researchers with parent study:** Here, the extent to which researchers conducting the SDA were involved with the parent study or studies was assessed. The relationships were identified by: authors self-citing the parent study, authors describing their contribution to the parent study, and authors describing their use of other researchers' data or archived data.
- **Context of secondary analysis:** For this category, articles were assessed by the context under which SDA took place. For instance, whether the data from parent study were analyzed post hoc, whether entire datasets or subsets were analyzed in the SDA, whether data from multiple studies were combined, or whether new research questions or analytical approaches were explicitly used. It was also assessed whether the secondary analysis aimed at advancing theory regarding a certain topic or methodology.
- **Details about parent study:** To understand the context under which the data were initially collected in the parent studies, articles were assessed for whether they included details about the parent studies, such as their: context and methodologies, IRB approval, funding sources, and process of sharing data (when applicable).
- **Ethical considerations in secondary analysis:** Articles were assessed for whether ethical considerations were described *that were specific to secondary analysis*. For instance, whether researchers made additional steps in the SDA to protect human subjects who participated in the parent study or descriptions of obtaining IRB approval for SDA.
- **Methodological rigor in secondary analysis:** Articles were assessed for whether the researchers described aspects *specific to the secondary analysis* that were used to increase rigor, including descriptions of the SDA process or specific strategies to improve rigor.

- **Methodological challenges in secondary analysis:** Articles were assessed for whether the researchers identified aspects of SDA that created challenges or limitations for their findings.

Both authors assessed each article independently and created a thematic chart based on these assessment criteria. Discrepancies in this assessment were resolved through discussion until agreement was reached. The authors acknowledge that the assessment is based on the published text, and thus, may not reflect further details outlined in other articles on the research or details not published. For instance, in cases where researchers did not identify obtaining IRB approval specifically for the SDA, that does not necessarily mean that the authors did not obtain IRB approval.

Findings

Seventy-one studies were included in this analysis. A table listing the studies and their appraisal using the criteria above can be accessed as an online supplementary appendix file. Most of the studies ($n = 51$, 71.8%) that met the inclusion criteria involved research focused on physical and mental health research, with fewer studies focused on social or economic issues.

Authors of these qualitative studies used a myriad of terms to describe their efforts to “repurpose parent study data for subsequent analysis,” including *secondary data analysis*, *post hoc analysis*, *re-analysis*, and *supplemental analysis*. Hence, the term *qualitative secondary data analysis* is not used consistently in the qualitative research literature. Through the appraisal of these studies, three central themes emerged that shed light on the current state of qualitative SDA and relate to current controversies to such practices within the literature: (1) *the relationship of the SDA study to the parent study or studies*; (2) *ethical considerations and human subject protections in qualitative SDA*; and (3) *attention given to methods and rigor in writing about primary and secondary studies*. These themes, along with their sub-themes, are described in detail below. Please note that when interpreting these thematic findings that the articles were assessed based on what information they included or did not include in the reporting of their studies and that the findings should not be used to assess actual rigor or quality in methodologies of individual studies.

Relationship of the SDA study to the parent study or studies

In most cases ($n = 60$, 84.5%), qualitative SDA among the included studies involved researchers re-examining qualitative data from parent studies that they were involved with to explore new research questions or analytic strategies. Therefore, most were familiar with the methodologies and data of the parent studies and were able to write about the parent studies and quality of data in significant detail. Variation in relationships between parent and secondary studies was generally based on the following characteristics:

Involvement of researchers across studies.—In the majority of cases ($n = 60$, 84.5%), it was clear when the researchers conducting the SDA were involved in the parent study, as indicated by researchers self-citing their previous work on the parent study or directly referring to their participation in the parent study (e.g. *We conducted in-depth*

interviews...). However, it was not always clear when new investigators were included on the research team for SDA and therefore, the exact number of SDA researchers who were also involved with the parent study was not always easily determined. In some cases, the relationship could be assumed (but was not assumed for the current analysis), such as those where the SDA researchers did not explicitly indicate their involvement with the parent study, but described that the study was conducted at their institution and/or their IRB approved the study for research with human subjects (see Bergstrom et al., 2009). There were other cases where researchers shared their data with one another and combined data from independent parent studies for the purpose of SDA and indicated that they were involved with one or more of the studies that data were derived from, but not all of the studies (see Saltee and Harris, 2011; Taylor and Brown, 2011). Hence, the in-depth knowledge of parent study methodologies and data by each researcher was limited.

There were a smaller number of cases ($n = 8$, 11.3%) where researchers reported that they conducted an SDA with qualitative data derived from an qualitative data archive where the author(s) did not indicate having an affiliation with the archive team (see Kelly et al., 2013; Wilbanks et al., 2016). In these cases, it was common for SDA researchers to describe the methods used to collect the data for the archive, or at a minimum, describe the purpose and source of the data archive. Very few studies included in this analysis involved researchers conducting SDA using data that they were not involved with at all and/or not obtained through an archive. The most common case for this ($n = 3$, 4.3%) involved researchers who conducted analyses with data collected through program or government evaluations (see Hohl and Gaskell, 2008; Romero et al., 2012; Wint and Frank, 2006). One notable case involved an SDA using data collected by unrelated independent researchers to reanalyze classic sociological research (Fielding and Fielding, 2000).

Context and purpose of SDA.—In almost all cases of research included in this analysis ($n = 68$, 95.7%), the SDA researchers provided the context and methodologies of the parent studies, though these descriptions varied in detail. Most were explicit in whether the data used in the SDA involved an entire dataset, a subset of data, or combination of data from the parent study or studies. The most common reason ($n = 57$, 80.2%) to conduct SDA was to explore new research questions post hoc that would advance theory in a particular area. In a smaller number of cases ($n = 18$, 25.4%), SDA was conducted post hoc to advance methodology. For instance, Myers and Lampropoulou (2016) conducted an SDA with data from several studies to examine the practice of identifying laughter in transcriptions of audio data. In other cases, SDA was conducted to demonstrate novel analytic approaches (see Henderson et al., 2012; Patel et al., 2015) or approaches to research (see Morse and Pooler, 2002; Schwartz et al., 2010).

Clarity in distinguishing between primary and secondary analyses.—While it was clear in most studies, there lacked consistency in the identification and description of SDA among the articles assessed. Some studies did not identify as being an SDA, but described methods and purposes that diverged from those of the parent studies and/or indicated that the analysis of the data for SDA was completed after the primary analysis in the parent study. In other cases, the researchers identified the research as being SDA, but it

was not clear if the purpose or aims of the SDA diverged from the initial analysis or occurred subsequent to the parent study. For instance, Cortes et al. (2016) indicated that their study was considered SDA, because the theme that emerged wasn't sufficiently explored before the IRB protocol period ended and therefore the findings being presented actually emerged during the primary analysis. In Coltart and Henwood's (2012) study, they reported that they "routinely crossed conventional boundaries between primary and secondary analysis" (p. 39).

Ethical considerations and human subject protections in qualitative SDA

The articles assessed in this analysis also varied in the extent to which they discussed ethical considerations and protections of human subjects. The following is an analysis of the extent to which ethical issues were identified and/or addressed in the parent and/or SDA research presented in the articles.

Attention given to ethical safeguards in writing about primary and secondary studies.—For the majority of studies assessed, it was most common for researchers to provide information regarding IRB approval and/or ethical considerations given in the parent study methodology ($n = 26$, 36.6%) with fewer cases indicating that IRB approval or exemption was specifically obtained or ethical considerations were made in their effort to conduct SDA. Most articles indicated that IRB approval was obtained for the parent study with no mention about IRB review of the SDA ($n = 19$, 26.8%). In 17 cases (23.9%), the researchers indicated that IRB approval was obtained for the SDA study alone or for both the parent study and SDA. In one of these cases, a researcher using archived data reported that IRB approval was sought out, but not required for the scope of their study (Heaton, 2015).

Examples of ethical procedures in secondary analysis.—Some researchers described steps for protecting human subjects that extended to the SDA, such as de-identifying data before SDA was conducted. Very few studies ($n = 5$, 7.0%) specifically indicated that participants in the parent studies consented to having their data available for SDA. Some researchers identified ethical considerations that are intrinsic to the nature of SDA, such as their efforts to conduct SDA in order to not overburden vulnerable populations that were participating in research (see Turcotte et al., 2015). Also less common was for researchers to report ethical dilemmas or concerns in conducting SDA, such as Coltart and Henwood's (2012) research with longitudinal qualitative data, where the researchers presented concerns about anonymity and ethics regarding archived data.

Attention given to methods and rigor in writing about primary and secondary studies

Finally, articles varied in the extent to which they described issues of rigor and limitations stemming specifically from the SDA. There was variation on the attention researchers gave to describing methods and rigor in the parent and SDA studies, their approaches to increasing rigor in SDA, and the limitations they identified that were specific from conducting an SDA.

Attention and focus of parent and secondary studies.—For most of the articles appraised ($n = 60$, 84.5%), researchers provided detail on the methodologies used to collect and analyze data in the parent study. The level of detail of these descriptions varied significantly, with some researchers providing a few sentences on the overall methodological approach to data collection in the parent study with little to no detail on primary analysis, to extensive sections of research articles being dedicated to the methods of the parent studies. Some researchers also reported the funding sources of the parent studies ($n = 28$, 39.4%), which may further help readers assess bias in the SDA. Many studies also described the process of SDA as being distinctively different from primary analysis, though in some articles, it was difficult to assess how SDA different from primary data analysis.

Examples of rigor in secondary analysis.—Some studies presented strategies used by researchers to increase rigor in the SDA study. Many studies ($n = 25$, 35.2%) reported common practices in qualitative data analysis to increase rigor, such as member checking, memoing, triangulation, peer debriefing, inter-rater agreement, and maintaining audit trails. In some articles, researchers indicated inclusion of members of the parent study research team or new researchers with expertise in the area of focus for the SDA with the intent of increasing rigor. Other articles asserted that the research questions explored through SDA were “a good fit” with those of the parent study, and therefore increased the trustworthiness of findings. Only a few studies reported that steps were taken in SDA to analyze data with a lens that was not influenced by the researchers’ involvement with the parent study, such as using clean, uncoded transcripts from parent study (see Williams and Collins, 2002) or purposefully reading transcripts with new perspective (see Moran and Russo-Netzer, 2016). Some articles reported that a strength in the SDA was that the researchers involved were very familiar with the parent study methodology and data. In one case (Volume and Farris, 2000), the researchers indicated that one source of rigor was that emerging findings during analysis could not influence future interviews, since the data were already all collected, which may minimize bias.

Identification of limitations in secondary analysis.—Most articles reported limitations in their studies that are often reported in qualitative research (e.g. small samples, not generalizable), though most of these descriptions did not relate specifically to SDA. About half ($n = 36$, 50.7%) of articles identified limitations in their study that resulted from the nature of their SDA, such as: not being able to return to participants for member checking or conduct further interviews to clarify or validate thematic findings in the SDA; conducting research with one purpose using data that were collected for another purpose, which limited the number of cases or extent to which a thematic finding could be identified; and conducting qualitative research with data that may not be as relevant as when it was first collected, given changes in context and/or time that may have influenced the data if collected in present day.

Discussion

In response to growing dialogue and criticisms about conducting SDA with qualitative data, this CIS set out to better understand the context of qualitative SDA in practice, with particular attention given to issues of methodological rigor and ethical principles. Overall,

71 articles met the inclusion criteria and were appraised, a number that is expectedly dwarfed by the number of quantitative studies that are identified as using SDA. However, thematic findings in this assessment address controversies in the literature and also raise issues in conducting SDA with qualitative data that can be used to guide future research and assessment of qualitative SDA studies.

The need for better and consistent definitions of qualitative SDA

Revisiting Hinds et al.'s (1997) approaches to qualitative SDA described earlier, most qualitative SDA studies identified and appraised through this CIS best reflect the approaches of *conducting a more in-depth analysis of themes from the parent study with a subset of data from that study* and *conducting an analysis of data from the parent study that appear important, but not sufficiently focused on in the primary analysis*, though all four approaches they identified were observed among studies. However, the main concern that arose from this CIS was that researchers often failed to describe the differences between primary and secondary analysis (or at least the relationship between the two analyses). Many described SDA strategies that were similar in scope and appeared to have been conducted in close timing to the primary analysis. As a result, it was not always clear cut if findings were more related to primary analysis than an actual secondary analysis.

There were also cases where researchers described conducting qualitative SDA, but did not label it as such. As a result, one of the primary limitations of this CIS is that the extent to which qualitative SDA studies were excluded from search results and therefore not included in this synthesis is unclear. Scholars can improve this issue by explicitly referring to qualitative SDA as such and describing the study methods in a way that make clear how SDA differed from primary analysis in scope, context, and/or methodology. Otherwise, given the fluid and/or emerging nature of many qualitative analyses and the fact that many researchers conduct qualitative SDA with their own data, there are limitations on the extent to which audiences can fully appraise such research.

Maintaining ethical standards in qualitative SDA

It is generally accepted that almost all research involving human subjects, including research involving SDA, should be reviewed by an IRB and determined if the study is exempt from further review or approved based on its treatment of human subjects. However, the majority of articles included in this analysis reported that IRB approval was obtained for the parent study with no mention of whether review was sought for the SDA or if the SDA was included under the same protocol. In the case of quantitative SDA, this issue may be more clearly explained in research reporting, since data is often shared among researchers who were not involved with the parent study and therefore SDA researchers would not be able to claim to be covered under the protocol approval for the parent study. As was found through this CIS, many qualitative SDA researchers are conducting analysis with their own data and may feel that the SDA is covered under the original protocol approval. However, it is unclear if this is always appropriate, given that many SDA investigations involve new research questions, unit of analysis, or focus from which the participants of the parent study may have consented to.

In addition, specific safeguards aimed at protecting human subjects should always be taken in qualitative SDA and described in the research reporting. For researchers who are interested in conducting studies that may be open to SDA in the future, this may mean taking specific steps that would make additional IRB review unnecessary (when the same researchers are conducting further analysis) or eligible for exemption. For instance, qualitative researchers should have participants consent to SDA of their data during the recruitment process or explain to participants during the consent process that researchers may report findings from their data that are unexpectedly derived and therefore not feasibly explained in the purpose and goals of the study through the initial consent form. They can also design interview and focus group guides that could more easily be de-identified for researchers to use later and think critically about whether additional safeguards should be in place to protect the participants in primary studies. Researchers should report about these procedures so that their audience can adequately access the ethical considerations taken in their research.

Ways to move forward

Promoting qualitative data sharing.—While much of the literature on the topic has criticized the use of qualitative data for SDA, some scholars have recognized its potential benefit to the state of science and have offered suggestions to promote this practice. Drawing upon the literature, Dargentas (2006) identified several ways of advancing the practice of SDA of qualitative data, including: increasing access to archived qualitative data, training researchers on using computer assisted qualitative analysis software, and addressing issues related to qualitative methodologies (p. 3). Such efforts have initiated, but have been slower to develop than those for quantitative data. Examples include the UK Data Service, the Timescapes Archive (University of Leeds) and The Oxford Health Experiences Research Group (University of Oxford).

Arguments have also been made that qualitative researchers can deploy strategies to collect data that is suitable and appropriate for SDA by other investigators. Walters (2009) asserts that through effective use of reflexivity, qualitative researchers can collect data that identifies and documents the socio-cultural-political context under which the data are collected so the dataset is relevant and important for future use by other researchers. However, Parry and Mauthner (2004) caution that researchers who develop plans at the beginning of their projects to collect qualitative data that may be shared in the future may run the risk of restraining themselves, through the questions that they ask, data collection strategies, or even their own contributions to creating the data (e.g. offering personal information to respondents to develop rapport) in a way that they would not if they were creating the data for solely their own use. This could compromise the quality of the data.

Recommendations

After our review of the literature, we offer three sets of recommendations to give SDA common anchors in qualitative research, designed to stress its strengths and reveal its limitations.

1. Increasing clarity and transparency in SDA.—We recommend a clearer and consistent definition of qualitative SDA where some or all of the following information is included in manuscripts. This includes: (1a) describing if and how the SDA researchers were involved with the parent study or studies; and (1b) a distinction between primary and secondary analysis should be provided so that the readers can determine if findings reflect the emerging nature of qualitative research findings or a new approach or purpose for re-analysis. Such descriptions will help readers evaluate the researchers' familiarity of the parent study methods, sample, data, and context. This will also help readers evaluate whether findings were the result of the emerging process of qualitative analysis, as opposed to SDA, which ideally would be a new analysis with a different purpose or approach from the parent study, even if the researchers remain the same across studies. A number of exemplary studies were identified that helped create clear and transparent understandings about the difference between the parent and SDA studies, including: Molloy et al. (2015), Myers and Lampropoulou's (2016), and Pleschberger et al. (2011).

2. Ethics in conducting qualitative SDA studies.—The ethics of conducting qualitative SDA is one of the most common topics written about in the literature about this practice. Hence, it was surprising that many studies in this CIS did not discuss IRB approval or strategies for protecting human subjects in the SDA study. It may be that researchers and peer reviewers assume that IRB approval was given or extended from the parent study's protocol. However, researchers should take responsibility to report their efforts in protecting human subjects through qualitative SDA. Some specific recommendations include: (2a) clarity about how the researchers obtained approval or exemption for the SDA; and (2b) methods to protect human subjects in the SDA, such as de-identified data, or consent forms that outlined SDA.

3. Increasing rigor and identifying our limitations in qualitative SDA.—Researchers are expected to maximize rigor in their research methodologies and identify limitations in their studies that may influence their audience's interpretation of findings. However, in this CIS it was found that only about half of the articles identified how the nature of SDA may affect their findings. Some recommendations for increasing rigor and transparency include: (3a) employing and describing strategies for increasing rigor within the SDA, such as including research team members from the parent study, including new research team members with specific expertise or fresh perspectives uninfluenced by the primary analysis, conducting SDA with uncoded transcripts, or other methods (audit trails, peer debriefing, member checking); and (3b) identifying limitations in qualitative SDA, such as how time or context may have changed the relevance of the data and/or the extent to which the goals and purpose of the SDA research were a good fit with those of the parent study. Examples of SDA studies that described rigor include: Borg et al. (2013), Chau et al.'s (2008), and Mayer and Rosenfeld (2006).

Conclusion

Qualitative research often involves long data collection sessions and/or participants who share intimate, sensitive and detailed information about themselves with researchers to promote the goal of generating new knowledge that may benefit society. SDA of qualitative

research is one way to advance this goal while minimizing the burden of research participants. Although SDA of qualitative data may not be appropriate or ethical in all cases, researchers should take the responsibility of recognizing when qualitative data are appropriate and safe to conduct SDA and/ or find creative ways that new studies may be designed that promote SDA. In such efforts, researchers should also take responsibility for identifying ways of promoting rigor and ethical research practices in SDA and clearly identify and describe these efforts so that the academic community can appropriately appraise such work while also learn from one another to advance methodology.

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Figure 1.
Search strategy and results for systematic review.