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Advancing the Study of Violence Against Women Using Mixed Methods: Integrating Qualitative Methods Into a Quantitative Research Program

Maria Testa[1], Jennifer A. Livingston[1], and Carol VanZile-Tamsen[1]

Abstract

A mixed methods approach, combining quantitative with qualitative data methods and analysis, offers a promising means of advancing the study of violence. Integrating semi-structured interviews and qualitative analysis into a quantitative program of research on women's sexual victimization has resulted in valuable scientific insight and generation of novel hypotheses for testing. This mixed methods approach is described and recommendations for integrating qualitative data into quantitative research are provided.

Keywords

intimate partner violence, mixed methods, qualitative, rape, sexual victimization

Since first identified as a problem worthy of study in the 1970s, tremendous progress has been made in understanding physical and sexual violence against women. Increasingly sophisticated quantitative studies have identified predictors and mechanisms underlying violence and its subtypes and provided support for theoretically derived hypotheses. Qualitative research has provided important insight into the subjective experience of violence and a greater understanding of the context and meanings associated with it. Independently, quantitative and qualitative studies can contribute much to the understanding of this

[1]University at Buffalo, Buffalo, NY

Corresponding Author:
Maria Testa, Research Institute on Addictions, University at Buffalo, 1021 Main Street, Buffalo, NY 14203
Email: testa@ria.buffalo.edu

complex phenomenon. However, it is the combination or integration of the two approaches, known as mixed methods research (Creswell, 2009; Creswell & Plano Clark, 2007; Tashakkori & Teddlie, 2003) that offers perhaps the best and most thorough means of understanding violence against women (see Murphy & O'Leary, 1994). This article describes a program of mixed methods research on women's sexual victimization and highlights the synergy resulting from the simultaneous integration of these two different approaches. This hybrid, mixed methods approach has resulted in triangulation of quantitative and qualitative findings, novel insights, and testable hypotheses that have greatly enhanced our program of research.

Mixed methods research can benefit any area of study, from persuasion (Cialdini, 1980) to workplace drinking (Ames & Grube, 1999). However, the use of mixed methods is particularly appropriate for studying physical and sexual violence against women. Violence against women is a complex, multifaceted phenomenon, occurring within a social context that is influenced by gender norms, interpersonal relationships, and sexual scripts. Many have argued that women's experiences of violence cannot be understood in a purely quantitative manner, divorced from their context (e.g., Gavey, 2005; White, Smith, Koss, & Figueredo, 2000). Because they typically occur in private and cannot be observed or manipulated in a laboratory setting, understanding of these experiences of violence is dependent on the subjective meaning for the woman and cannot easily be reduced to a checklist. For example, in the case of sexual violence, a behavior that may be appropriate and welcome in one context (or by one woman) may be viewed as coercive in another.

Mixed Methods Research: Integration of Quantitative and Qualitative Approaches

Quantitative and qualitative research involve very different approaches. Quantitative research begins with predetermined, instrument-based questions, designed to test a priori hypotheses. In contrast, qualitative methods typically involve naturalistic or holistic collection of data through observation or from the perspective of the participant. At the end of this continuum is ethnographic or participant–observer research, in which the researcher observes an unfamiliar culture, without preconceived notions (Lofland, 1971; Spradley, 1980). Qualitative approaches are usually inductive, in that they involve deriving meaning or theory from the data (see Boyatzis, 1998; Corbin & Strauss, 2007; Miles & Huberman, 1994; Spradley, 1980). Specific methodology is needed to analyze qualitative data in a rigorous manner; for example, thematic analysis is a commonly used, flexible technique that involves "identifying, analyzing and reporting patterns or themes within data . . . to find repeated patterns of meaning" (Braun & Clarke, 2006, p. 79).

Mixed methods research involves the integration of these two very different approaches. Qualitative and quantitative data can be integrated in different ways and at different points in the research process (Creswell, 2009; Maxwell & Loomis, 2003; Miles & Huberman, 1994). For example, it is becoming increasingly common to conduct a small number of interviews or focus groups (Krueger & Casey, 2000) as an initial pilot step before beginning a full-scale research project in a new area (e.g., Noonan & Charles, 2009). Alternatively, interviews or focus groups can be conducted to follow up on quantitative findings,

particularly those that are surprising (e.g., Peterson & Muehlenhard, 2007). Although we have used both approaches, we have found qualitative data to be most valuable when integrated or embedded within a larger quantitative program of research. This simultaneous integration has not only helped to establish convergent validity between qualitative and quantitative findings but has also been invaluable in the generation of hypotheses and new ways of thinking. It is this process that we describe in this article.

Although the term *mixed methods* may be fairly new, it is not a new approach. In fact, well-known social psychologists including Sherif, Milgram, Cialdini, Festinger, and Zimbardo all integrated qualitative data into their famous studies, both concurrently, as well as sequentially (see Fine & Elsbach, 2000; Milgram, 1974). The integration of qualitative and quantitative can be quite natural, as for example, when observation of a naturally occurring phenomenon leads to hypotheses and experimentation (and back to external validation), a process described as "full-cycle social psychology" (Cialdini, 1980). We believe that many quantitative researchers probably engage in some form of implicit, mixed methods research as they draw research ideas from naturalistic or clinical observation or seek confirmation or validation of their quantitative results in the real world. However, many quantitative researchers lack familiarity or appreciation of qualitative methods, and consequently dismiss these approaches as foreign and not applicable, or worse, as inferior. Our goal is to convince these researchers of the value of integrating qualitative data and data analysis into their quantitative research. To do so, we document our personal experiences in a program of research in which the decision to supplement a quantitative program of research on women's sexual victimization with semistructured interviews resulted in invaluable scientific insight.

A Mixed Methods Approach to Women's Sexual Victimization

As is common in many graduate psychology programs, the bulk of training and research experience for all three of us was quantitative rather than qualitative. My own experience (MT) with qualitative data began serendipitously. As an experimental social psychologist, my only familiarity with qualitative research was an introduction to ethnography in a graduate methodology course. It seemed like an exotic, Margaret Mead-type of endeavor that I was unlikely ever to undertake. Then, just as I was completing graduate school I accepted a job as a project director on one of the first studies to examine the interrelationships among women's alcohol use and their experiences of victimization, a topic about which I knew nothing at the time. Data were collected in person, and tape recorded, and often involved long, emotional interviews in which participants revealed experiences of childhood sexual abuse and victimization by intimate partners, which in many cases they had never previously disclosed. Whenever I had the time, I listened to the tapes of these interviews, as I struggled to try to understand the circumstances by which something so horrific could occur. Twenty years later I can still recall many of the stories that I heard. There was something about hearing these experiences in the participant's own voice (literally) that went far beyond what any quantitative relationships among variables could reveal.

Although the data were never formally analyzed, they provided me with a "feel" and an insight for what these experiences were like, how they came about, the context, and how women were affected by and coped with them. They were, in a sense, subjected to a sort of rudimentary thematic analysis in my head as I sought to make sense of them.

In the early 1990s, I began an independent, funded program of research on women's alcohol use and sexual risk taking. Although I operationalized sexual risk in terms of HIV risk behaviors (e.g., failure to use condoms, sex with partners not well known), I had a vague notion that similar processes might be involved in women's vulnerability to sexual victimization as well and decided to include the Sexual Experiences Survey (SES; Koss, Gidycz, & Wisniewski, 1987). For women who reported any victimization experiences on the SES, the measure was followed by a semistructured interview regarding these incidents. Most of these interviews were conducted by JL, then a graduate student in educational psychology, who was the head interviewer on the project. Although interviews were originally intended to provide information for quantitative analysis of the events (e.g., alcohol use, relationship to perpetrator), the interviewer began by asking the woman to describe in her own words how the event came about, as a way of facilitating recall and helping her to fix the event in her mind. These descriptions of victimization incidents, from the victim's perspective, provided a critical window into understanding sexual victimization that could not be obtained through quantitative description alone. Neither did I realize at the time I began that I was designing mixed methods research nor did I anticipate conducting thematic or other qualitative analysis. Rather, it was a sincere desire to understand a phenomenon that motivated the simultaneous collection of qualitative data and the later analysis of it. Although we were not the only ones to integrate qualitative and quantitative data in the study of sexual victimization (see Norris, Nurius, & Dimeff, 1996 for an excellent example), we began our inquiry at a time when the body of research was limited, particularly with respect to understanding of alcohol and victimization. Thus, qualitative analysis was particularly well suited to this early stage of investigation.

The original study yielded 100 transcribed descriptions of incidents of sexual assault which we analyzed using a combination of content analysis, thematic analysis, and quantitative comparisons. For 6 months, we (MT and JL) read and took notes on index cards and discussed and shuffled index cards and read and discussed some more.[1] We knew the descriptions so well that we could refer to "Hands" and the other would immediately recall the whole story. The article that resulted from our immersion in the data (Testa & Livingston, 1999) offered unique insight into sexual assault incidents and how they come about from the perspective of the victim. For example, although the term *date rape* was frequently used by researchers at that time, the majority of incidents did not occur on dates, even within this sample of young, sexually active, single women. Coercion incidents stood apart from most others in their absence of force or obvious pressure, and led us to study this phenomenon further in a later qualitative investigation (Livingston, Buddie, Testa, & VanZile-Tamsen, 2004). Importantly, the analysis made clear the heterogeneity of sexual assault incidents. At that time, the first round of quantitative studies was attempting to identify quantitative risk factors for women's sexual victimization, frequently with disappointingly weak results for individual variables such as women's drinking (e.g., Gidycz,

Hanson, & Layman, 1995; Kilpatrick, Acierno, Resnick, Saunders, & Best, 1997). Our initial qualitative analysis of sexual assault incidents suggested the reason: sexual assaults arose from several very different circumstances and situations, some involving heavy drinking at parties, some reflecting a pattern of coercive sex within an intimate relationship, and others arising "out of the blue" within nonsexual situations. Thus, it was plausible that these different types of sexual assault would be associated with different risk factors.

Based on the notion of heterogeneity that arose from our initial qualitative analysis, we subsequently tested a set of hypotheses that risk factors would be specific to different types of sexual victimization. For example, using quantitative data from the same study, we tested the hypothesis that sexual assertiveness should be more predictive of coercion than rape, whereas alcohol consumption should be more strongly associated with rape (Testa & Dermen, 1999). In the longitudinal "Women 2000" study that followed, we examined similar hypotheses regarding heterogeneity of types of sexual assault resulting in different risk factors. We found that sexual assertiveness was a significant prospective predictor of victimization from intimate partners (often verbal coercion), but not victimization from nonintimate perpetrators. In contrast, frequency of heavy episodic drinking predicted the latter but not the former (Testa, VanZile-Tamsen, & Livingston, 2007).

At about the time the Testa and Livingston (1999) article was published, we were launching the "Women 2000" study, a larger version of the previous work, using a representative local sample of 1,014 women. Again, we collected descriptions of incidents of sexual victimization, to enable both quantitative and qualitative analysis, having been convinced by the earlier study of the value of qualitative inquiry. As of the much larger sample size, interviews with women who had experienced sexual victimization yielded 361 interview transcripts, some with multiple incidents. To manage this daunting pile, we divided the workload initially into coercion incidents and rape incidents. Analysis of the coercion incidents was headed by JL, whereas the rape incidents were given to CVZT, who had recently joined the project as a quantitative data analyst but also had some training and experience with qualitative analysis.

Soon after beginning what we intended to be thematic analysis of rape incidents we identified a cluster of incidents that clearly stood apart from the rest. These incidents all seemed to involve the same story: excessive alcohol consumption, resulting in the victim having only vague awareness of a man having sex with her, while being unable to speak or resist. In contrast to the other rape incidents, which were emotionally draining to read because of the horror and trauma conveyed by the victim, these had a fuzzy, dreamlike quality to them as the trauma was dulled by alcohol. The difference was so striking that we abandoned the thematic analysis and focused on contrasting these "incapacitated rapes," as we came to call them, from the forcible rape incidents. Consistent with the heterogeneity of sexual victimization notion, quantitative analyses revealed that incapacitated rape, but not forcible rape, was associated with substance use (Testa, Livingston, VanZile-Tamsen, & Frone, 2003). However, more importantly, the identification of incapacitated rape as an additional subcategory marked an important shift in thinking about alcohol and rape for us, if not for others. That is, it led to the insight that the association between alcohol and rape was probably driven by alcohol's association with incapacitated rapes, as most forcible

rapes did not involve victim alcohol use, or if they did, it was at more moderate levels. Accordingly, in many cases of alcohol-involved rape or sexual assault, women's vulnerability does not stem from impaired judgment or risk perception resulting from drinking (Steele & Josephs, 1990) as many had theorized, but because alcohol has rendered the victim unconscious or unable to move or speak, far beyond the impaired judgment stage.

Meanwhile, qualitative analysis of the sexual coercion incidents revealed a significant difference in tactics depending upon sexual precedence. Perpetrators who already had a sexual relationship with the woman used primarily negative coercive tactics (e.g., threats against relationship), whereas those who had not already had sex used positive tactics, such as sweet-talking the woman into having sex (Livingston et al., 2004). Sexual precedence implied subsequent entitlement to sex, leading men to berate and threaten women who failed to comply with these social and cultural norms regarding sexual relationships. The notion of sexual precedence as a key variable in determining sexual aggression tactics and outcomes was not one that had occurred to us a priori. Previous quantitative research had considered the level of acquaintance between victim and perpetrator and failed to find consistent effects of this variable on event-level sexual assault outcomes (e.g., Ullman, Karabatsos, & Koss, 1999a, 1999b). Because sexual precedence often coincides with relationship status, it was not obvious that precedence was the underlying mechanism. It was qualitative analysis that made it clear that it was sexual precedence, rather than the nature of the acquaintance that was a key variable to consider. We subsequently included sexual precedence in a quantitative analysis of sexual assault outcomes and found that it was the best predictor of whether penetration occurred (Testa, VanZile-Tamsen, & Livingston, 2004).

While conducting the qualitative analyses of rape and coercion incidents, we were faced with a perplexing issue. The event-based interview from which our qualitative analyses were derived was initiated based on women's responses to a slightly revised SES administered using computer assisted self-interviewing (CASI). The interviewer was able to access the woman's SES responses and began the interview by reminding her which items she had endorsed and clarifying what items occurred on the most recent occasion. Then she asked the woman to describe what had happened in her own words. It became clear very early in the study that what the woman reported on the SES and what she actually described as happening did not always match. Errors in reading or marking answers didn't seem to account for the substantial number of discrepancies. We began an "error log," in which the interviewer logged the discrepancy between what the woman reported on the SES and what she seemed to be describing. In generating lists of transcripts for the rape and the coercion analyses, we found even more cases of apparent mismatches—for example, penetration occurred although the woman had reported an attempted rape item. In our quest to provide the most accurate estimate of prevalence of different types of sexual assault, we began to make "corrections" to the data to reflect what we thought the woman was really describing, rather than what she actually reported on the SES. However, in reading these transcripts over and over and thinking in depth about the incidents, we began to question and then abandon this approach. For one thing, we started to notice some systematic patterns in the discrepancies. For example, incidents in which the perpetrator was an intimate partner tended to be assigned by the woman to a less severe category than when the same behavior

was perpetrated by someone less well known. This led to testing—and support—of the hypothesis with experimental data (VanZile-Tamsen, Testa, & Livingston, 2005).

Eventually, we began to see that what we originally thought were errors or noise was actually something much more interesting, suggesting individual differences in interpretations of SES items. We realized that we were "correcting" the respondents' reports based on our own interpretation of the SES items. We tended to agree among ourselves as to what the "correct" labels for the women's experiences were; however, it remained an empirical question whether others who are not sexual assault researchers view the items the same way. As researchers, we strive to create items that capture the subtleties of definitional or legal aspects of different types of sexual aggression. However, it is easy to lose sight of the fact that these items will be read and interpreted by a wide range of people who have not spent years studying sexual assault, and whose experiences might not exactly match the wording of the items (see Hamby & Koss, 2003; Thoresen & Overlien, 2009). Once again, the qualitative data and our immersion in it led us to an insight that we never would have had otherwise. The result was a article in which we consider the match between the labels that respondents use for their experiences of sexual victimization and those applied by independent coders (Testa, VanZile-Tamsen, Livingston, & Koss, 2004). We found that SES rape and coercion items elicited respondent recall of events that independent coders generally agreed reflected rape and coercion, respectively. However, with contact and attempted rape experiences, agreement between respondents and coders, and among coders, was much lower. Although the published article reflects a quantitative presentation, it was actually the qualitative data that led us to this analysis.

Conclusions

Qualitative analysis of our data has resulted in numerous "a-ha" types of insights that would not have been possible had we relied solely on quantitative data analysis (e.g., identification of incapacitated rape and sexual precedence, heterogeneity in the way that sexual assaults arise) and also helped us to understand puzzling quantitative observations (e.g., the mismatch between SES reports and descriptions of incidents). These insights, in turn, led to testable, quantitative hypotheses that supported our qualitative findings, lending rigor and convergence to the process. We never could have anticipated what these insights would be and that is what is both scary and exhilarating about qualitative data analysis, particularly for a scientist who has relied on quantitative data analysis and a priori hypothesis testing. The lengthy process of reading, coding, rereading, interpreting, discussing, and synthesizing among two or more coders is undeniably a major investment of time. However, we believe that it is time well spent if the goal is deeper understanding of data. Not only did the use of multiple coders and reliability checks (see Miles & Huberman, 1994 for a more detailed discussion of reliability) prevent the analysis from being biased by a single person's perspective, but also working collaboratively was a great advantage in that it fostered deeper and more creative thinking than working alone. It is *the process* of doing qualitative analysis—immersive, iterative—that is critical in developing ideas and making intellectual leaps. As it is more time consuming and more personal

than quantitative analysis, the synthesis and analysis that result become so integrated into one's brain—or in our case, into our collective brains—that it becomes difficult to recall where these ideas and hypotheses arose in the first place.

In an ideal mixed-methods world, quantitative and qualitative data would be integrated and proceed together as a field of study develops. This integration has occurred to some degree within the study of women's sexual victimization, which has been fairly friendly to qualitative inquiry and mixed methods research. However, this has not been the case in all areas of violence research. We believe that it is not too late to introduce qualitative methodology in these areas and that such inquiry may help to lend new insights to long-standing controversies. For example, interpretation of the high rates of women relative to men partner aggression in nonclinical samples has been highly controversial (see Dutton & Nicholls, 2005), with feminist researchers citing the limitations of objective, act-based measures such as the Conflict Tactics Scales (CTS-2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996) to portray the context and meaning of these acts (see White et al., 2000). Qualitative research designed to understand violence from the perspective of the men and women who experience and perpetrate it would seem an ideal means of shedding light on this issue. However, despite qualitative studies of partner violence incidents among battered women samples (e.g., Allison, Bartholomew, Mayseless, & Dutton, 2008; Downs, Rindels, & Atkinson, 2007), there is a surprising absence of such inquiry in nonclinical populations. Using arguments similar to those presented in this article, I was, in fact, able to convince a senior colleague who had previously conducted only quantitative research on intimate partner violence of the potential value of qualitative data. In-person data collection efforts now include semistructured interviews regarding incidents of psychological and physical aggression on the CTS by both men and woman partners (separately, of course). Preliminary thematic analysis suggests a tendency for both men and woman to downplay or excuse physical aggression (Testa, Derrick, & Leonard, 2010); however, data collection and analysis are ongoing.

Integrating Qualitative Data Into Quantitative Studies: Some Practical Issues

For the quantitative researcher who has not yet collected qualitative data but is considering it, we offer some suggestions and practical issues to consider based on our own experiences, which have involved primarily semistructured, event-based interviews. We emphasize that we do not consider ourselves experts in qualitative or mixed-methods research and that this brief article cannot convey all the methodological concerns that should be considered. Accepted methods of qualitative data analysis are rigorous and it will be necessary to consult established methodological resources and, if possible, to consult or collaborate with someone with qualitative data analysis experience before beginning. We have included throughout the article references to many seminal and comprehensive resources on qualitative data collection and analysis for readers who wish to pursue these issues in more depth.

Perhaps it goes without saying, but the value of any qualitative analysis is dependent on the quality of the data available, which for us results from the quality of the interview questions and the interviewers' skill. Questions need to be crafted so that they yield not

one-word answers but sufficient information to understand the participants' perspectives. Asking about specific events is preferable to asking about general events or asking about how one felt, because in providing details, important information about the respondent's perspective will be revealed (Matthews, 2005). Quantitative researchers typically ask a large number of questions, perhaps hundreds within a survey. However, a semistructured interview may focus on one major question—"How did this event come about?"—followed by probe questions that are shaped by the initial response (e.g., "Can you explain what you mean by . . . ?"). When beginning a qualitative analysis, it is frustrating to read interview transcripts that reveal incomplete probing, interviewers putting words in the respondents' mouths, or seemingly irrelevant or repetitive questions. Ideally, transcripts should reveal big blocks of text from the respondent, rather than a lot of back and forth questions and short answers. As aptly stated by Matthews (2005), "Researchers ask questions not to elicit answers to specific questions but to make it possible for social actors to tell about something in their own words" (p. 800). The best probe questions are formulated so as to clarify and elicit additional information *from the respondent's perspective*. Breaking the flow with a lot of short, closed-ended questions diminishes the data's qualitative value and makes it too much like a quantitative questionnaire.

Obviously, monitoring interviewer effectiveness is important in any research project, but particularly so if good quality open-ended data is the goal. To avoid being disappointed with the quality of interview transcripts, it is critical to determine as early as possible whether open-ended data elicited by the questions and by the interviewers appear to be of sufficient richness and quality and if not, to make adjustments to either the questions or the interviewer technique. Interviewing people about their experiences of violence requires special attention to both the phrasing of questions and interviewer skill, so as not to make people defensive or suggest they are to blame. It is important that interviewers are comfortable and matter-of-fact in their approach to discussion of topics and incidents that are typically private and not frequently discussed. If the respondent detects that the interviewer is uncomfortable or that the incident reflects something socially undesirable then she will not be forthcoming, or worse, will describe the incident not as she truly sees it but to "please" the interviewer. The interviewer must refrain from interjecting herself while listening in a nonjudgmental manner and asking appropriate follow-up questions. Selecting interviewers who are not easily made anxious, and who have a calm manner is important as is emphasizing that research interviewing is not a conversation. By way of analogy, the role of the research interviewer is rather like that of a medical professional seeking information about a patient's physical problem. Although many physical complaints and symptoms are not topics of polite conversation, it is perfectly appropriate to discuss these within a specific context, in which the important details are elicited for a specific purpose and in a respectful manner.

Research shows that trauma survivors see their participation as important in helping science and other women (see Becker-Blease & Freyd, 2006; Campbell & Adams, 2009; Newman & Kaloupek, 2009) and we have generally found women to be forthcoming and willing to discuss their victimization experiences with a research interviewer. However, we always remind the respondent that she has the right to refuse to answer any question and can choose not to continue the interview or to stop at any time; a few do decline. If a

woman becomes upset during the interview, the interviewer must offer the opportunity to take a break or discontinue. In our experience, it is quite rare for a survivor to decline or stop an interview, even when the experience is upsetting to discuss. It is also important to consider the impact on the interviewers of hearing about numerous incidents of rape and violence; Campbell (2002) provides an eloquent discussion of this often overlooked aspect of research on violence and provides helpful advice.

Over the past several years there has been a trend away from in-person data collection as researchers rely increasingly on web-based, CASI, and interactive voice response (IVR) technology. Although such "remote" approaches make it less likely that qualitative data can or will be collected, some types may still be feasible, for example, written responses to open-ended questions. Written narratives have certainly provided valuable data for some violence researchers, for example, college women's written responses regarding why they found it difficult to answer questions regarding victimization (Thoresen & Overlien, 2009). However, in our experience, written descriptions of sexual victimization experiences have tended to be curt and lacking in detail and there is no opportunity for probing to get more information. We speculate that it may be more natural to discuss these experiences with a trained and socially skilled interviewer, after the building of rapport, than to describe such experiences in writing. Moreover, verbal responses, even when transcribed, can convey the affect behind the information in a way that a written narrative cannot.

In-person data are admittedly more expensive to collect, as they require face-to-face contact with each respondent. However, if the decision has been made to collect data in person then it is not that much more difficult or expensive to add a qualitative component by including some open-ended questions. Transcribing each tape-recorded interview requires a significant amount of person-hours. However, it may be valuable for a graduate student or beginning researcher to spend some time doing this, because listening to each tape can be a learning experience and the first step in the process of qualitative data analysis. Our own approach has been to have research assistants do transcriptions during the "down time" that inevitably occurs on large research projects, thus making efficient use of their time. Using interviewer notes rather than verbatim transcripts has its limitations but can also provide valuable open-ended data (e.g., Weiss, 2009).

There is no way around the fact that qualitative data analysis is time consuming, given the collaborative, iterative process of reading, coding, discussing, and interpreting. We believe that this is time well spent if one's goal is truly to understand a process or phenomenon, particularly at the early phases of a research program or for an early-stage researcher. Even if there isn't the time to conduct a proper or publishable thematic analysis, it can still be quite worthwhile to spend some time reading (or listening, or viewing) these rich sources of data. Reading through multiple transcripts can lead to recognition of commonalities and insights not otherwise possible. The one caution that we offer is to spend enough time, and cover enough cases, so that one is not relying too heavily on a few vivid and possibly unrepresentative cases in forming a picture of the phenomenon. It is human nature to rely too heavily on vivid anecdotes or readily available information (e.g., Nisbett & Ross, 1980), whereas the goal of thematic analysis is to capture a holistic picture. A useful guideline in conducting qualitative research is that the sample size should be large enough to

achieve theoretical saturation, that is, until no new ideas emerge (Corbin & Strauss, 2007; Krueger & Casey, 2000).

Admittedly, quantitative researchers often harbor prejudices against qualitative research as "soft" and unrepresentative, which can make it more difficult to fund or publish qualitative research. The mixed methods approach that we have used has diminished many of these difficulties, because funding can be obtained for the quantitative study and publications can include both types of data. In fact, qualitative components and the convergent validity that is a hallmark of mixed methods research are frequently recognized as strengths by grant and journal reviewers. Although a qualitative purist might object, we have typically reported the percentage of the sample who discussed a given theme, to provide a sense of how common or representative it was in our sample. Finally, quantitative researchers may fail to understand that theoretical saturation and conceptual power, not statistical power or generalizability, are the guiding principles behind sampling and hence dismiss qualitative research as relying on small, unrepresentative samples. However, collecting qualitative data from a relatively large community sample (or a subsample) in conjunction with a larger quantitative study can eliminate the objection that qualitative findings are derived from a small, unrepresentative sample.

Summary

Violence against women is a complex and multifaceted phenomenon that we believe can benefit from multimodal, mixed methods research. As described above, integration of quantitative and qualitative methodology creates a synergy and leads to a deeper understanding than is possible with exclusive use of a single orientation. Qualitative data can complement and enrich a program of quantitative research and can be implemented at different stages of a research program. Quantitative researchers need not abandon their methodological approaches, but rather can supplement them with some additional tools. The resulting mixed-methods approach is stronger than either method on its own and can greatly enhance understanding of violence against women.

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Note

1. Although we have always used index cards for coding, there are many software packages available to assist in qualitative coding and data analysis, such as NVivo (QSR International) and ATLASti.

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Bios

Maria Testa is a senior research scientist at University at Buffalo's Research Institute on Addictions. For more than 20 years, she has conducted federally funded research on the role of alcohol in sexual and physical violence, with a focus on women's experiences of sexual assault. She has served on the editorial boards of *the Journal of Consulting and Clinical Psychology*, *Journal of Studies on Alcohol and Drugs*, and *Psychology of Women Quarterly* as well as numerous National Institutes of Health scientific review groups.

Jennifer A. Livingston is a research scientist at University at Buffalo's Research Institute on Addictions. Her program of research focuses on adolescent alcohol use and sexual risk behavior. She has employed mixed methods data analytic approaches to examine the intersection of

these behaviors and their relation to sexual vulnerability among adolescents and emerging adult women. She is currently funded by a Mentored Scientist Development Award from the National Institute on Alcohol Abuse and Alcoholism.

Carol VanZile-Tamsen is a research analyst in the Office of Institutional Analysis at the University at Buffalo. In 1996, she received her PhD from the University at Buffalo in Educational Psychology with a concentration in measurement, statistics, and research. During her research career, she has applied both quantitative and qualitative research methods to such topics as self-regulated strategy use of college students, constructivist teaching methods, assessment of university outcomes, and substance use and sexual assault.