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Utility of Qualitative Research Findings in Evidence-Based Public Health Practice

Susan M. Jack

ABSTRACT Epidemiological data, derived from quantitative studies, provide important information about the causes, prevalence, risk correlates, treatment and prevention of diseases, and health issues at a population level. However, public health issues are complex in nature and quantitative research findings are insufficient to support practitioners and administrators in making evidence-informed decisions. Upshur's Synthetic Model of Evidence (2001) situates qualitative research findings as a credible source of evidence for public health practice. This article answers the following questions: (1) where does qualitative research fit within the paradigm of evidence-based practice and (2) how can qualitative research be used by public health professionals? Strategies for using qualitative research findings instrumentally, conceptually, and symbolically are identified by applying Estabrooks' (1999) conceptual structure of research utilization. Different research utilization strategies are illustrated through the use of research examples from the field of work on intimate partner violence against women. Recommendations for qualitative researchers disseminating findings and for public health practitioners/policy makers considering the use of qualitative findings as evidence to inform decisions are provided.

Key words: evidence-based nursing, public health nursing research, qualitative research, research utilization.

For many practitioners, the term “evidence-based” practice implies that the *evidence* required for informing clinical and policy decisions is based on empirical or quantitative research findings and, in particular, results from the “preeminent gold standards” of systematic reviews and randomized controlled trials (Rycroft-Malone et al., 2004). Given that public health practice has been traditionally informed by the discipline of epidemiology, emphasis has been placed on using quantitative methods, appropriately so, to address questions of prevalence, effectiveness, and causation. However, with increasing understanding that contextual factors influence how successfully programs or policies are carried out, there is an important role for qualitative research methods and findings within public health. This article addresses

the following questions: (1) where does qualitative research fit within the paradigm of evidence-based public health and (2) how can qualitative research be used by public health nurses and policy makers? To situate qualitative research findings as a credible source of research evidence for public health practice, Upshur's Synthetic Model of Evidence (2001) will be described. Solutions to the question of qualitative research utility will be identified through the application of Estabrooks' (1999) conceptual structure of research utilization. Specific qualitative research examples from the field of work on intimate partner violence (IPV) against women, an emerging public health priority, will be used to illustrate the different concepts.

Defining Evidence

Evidence has been defined as “an observation, fact, or organized body of information offered to support or justify inferences or beliefs in the demonstration of some proposition or matter at issue” (Upshur, 2001, p. 7). However, with the emergence of evidence-based practice paradigms, there has been significant debate about what type of information actually constitutes

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evidence to inform clinical practice and policy. Rycroft-Malone et al. (2004) claim that knowledge to inform health care delivery is derived from four different evidence bases including (1) research, (2) local data and information, (3) professional knowledge or clinical experience, and (4) patient experiences and preferences. However, some argue that conceptual clarification is required to differentiate between “evidence” and “knowledge.” It has been suggested that the term *evidence* should refer exclusively to research findings that are tangible and can be exchanged between individuals (Scott-Findlay & Pollock, 2004). In comparison, *knowledge* is defined as personal and intangible information that influences how research evidence is used and applied in a specific health care setting (Scott-Findlay & Pollock, 2004; Tarlier, 2005). In a systematic review to conceptualize evidence, Lomas et al. (2005) highlight that researchers generally define evidence by the methods used to produce it, resulting in two unique forms of evidence: (1) con-

text-free research evidence (e.g., derived from quantitative methods) and (2) context-sensitive research evidence (e.g., derived from qualitative approaches). The authors explain that decision makers define evidence more broadly, thus resulting in a third category of colloquial evidence (e.g., information from sources other than research).

Qualitative Research Findings as Evidence in Public Health

The scientific evidence base for public health practice has its roots in the discipline of epidemiology (Swanson, 2001). Epidemiologists use predominantly quantitative methods, with underlying positivistic paradigm assumptions, to infer generalizations about population health, identify disease trends and distribution within a population, understand causal relationships between exposures and outcomes, and evaluate health promotion and disease prevention

TABLE 1. Comparison of Major Assumptions Between Positivistic and Naturalistic Paradigms

Philosophic components	Positivistic paradigm	Naturalistic paradigm
Ontological and epistemological underpinnings	Acceptance that one reality or truth exists Objectivity is valued; strategies to decrease researcher influence on participants are implemented	Acceptance of multiple realities; seek to understand and interpret relationships between different realities Subjectivity is accepted; recognize that findings are created as a result of researcher and participant interactions
Methodological underpinnings	Deductive processes Hypothesis testing Fixed design with predetermined sample size Control over variables Goal is to generalize findings to a population	Inductive processes Interpretations of phenomena emerge from participants' experiences Flexible design, difficult to confirm sample size a priori Evolution of study focus dependent upon emergent themes Exploration of contextual influences on phenomena Goal to identify themes and patterns relevant to a specific context that may be transferable to other settings
Research designs	Quantitative research designs Experimental, quasi-experimental, and observational studies <i>Examples:</i> Systematic reviews/meta-analyses Randomized-controlled trials Cohort studies Case-control studies	Qualitative research approaches <i>Examples:</i> Grounded theory Phenomenology Ethnography Case study Participatory action research Descriptive qualitative Narrative
Data collection and analysis	Measurement of specific intervening variables and outcomes Statistical analysis	Understanding and exploration of phenomena from a holistic perspective Data presented as themes, narratives, or theoretical models

Adapted from Barbour (2000); Loiselle, Profetto-McGrath, Polit, and Beck (2004).

interventions (Hills, 2000; Swanson, 2001). Within this paradigm, health outcomes are primarily attributed to physical, biological, psychological, or environmental causes, and programs are developed to encourage behavior and knowledge changes at the individual level (Carey, 1993; Hills, 2000).

Increasingly, there is recognition of the importance of the social determinants of health and the need to understand how social, political, and economic contexts influence human experiences and behaviors (Hills, 2000). Given the complex nature of most public health issues (e.g., smoking, violence, obesity), decision makers require a greater depth of understanding of the problems than that supplied by quantitative methodologies (Boutilier, Rajkumar, Poland, Tobin, & Badgley, 2001; Swanson, 2001). To study the complexity of human interactions and to understand the influence of contextual factors, researchers may choose to conduct research within a naturalistic paradigm using qualitative research approaches. The major philosophical and methodological assumptions underpinning the positivistic and naturalistic paradigms are compared in Table 1. Qualitative health researchers document how humans experience health and illness and the meanings they attribute to these experiences (Green & Britten, 1998). For health care providers, qualitative research can provide insights about phenomena not previously studied, address

gaps in our understanding of an issue, provide a new perspective on a situation (Schreiber, 2001), and offer rich descriptions and contextually specific answers to “how” and “why” questions (Barbour, 2000). In public health, qualitative research findings provide insights about “why” individuals and populations engage in specific behaviors, promote understanding of social processes that result in positive health outcomes, and facilitate identification of contextual influences, including historical, social, political, or cultural factors, that influence the success or failure of an intervention, program, or policy (Boutilier et al., 2001; Hills, 2000; Swanson, 2001). However, qualitative research, in comparison with quantitative, has been perceived as a process with less rigor and legitimacy that results in findings with little utility and limited generalizability at a population level (Boutilier et al., 2001; Sandelowski, 1997). As a consequence, in methodological hierarchies of scientific evidence, qualitative research is either absent as a form of evidence or poorly ranked (Upshur, 2001). It is imperative to clarify that qualitative approaches are ranked poorly in these hierarchies because they are weak designs for addressing questions of effectiveness or causation. Therefore, there is a need to increase awareness about the appropriate types of research questions best answered using qualitative approaches.

TABLE 2. *Conceptualization of Types of Research Evidence*

Q1: Qualitative / Personal	Q2: Qualitative / General	Research methodologies
<i>Research focus:</i> An individual's perceptions, beliefs, and attitudes of a phenomenon and the attributed meaning within a specific context. <i>Examples:</i> A case study or narrative	<i>Research focus:</i> Managerial or organizational perspective on an issue, including identification of cultural, social, political, and gender influences. <i>Examples:</i> Policies or consensus statements	Qualitative
Q4: Quantitative / Personal	Q3: Quantitative / General	Mixed Methods
<i>Research focus:</i> Quantification of an individual's beliefs and/or attributes. <i>Examples:</i> Quality of life scales	<i>Research focus:</i> Use of epidemiological study designs (e.g., Randomized controlled trial, cohort, or case-control) to develop traditional scientific evidence. <i>Examples:</i> Prevalence/incidence data, intervention effectiveness, or risk factor identification, all expressed as a statistical measure	Quantitative
Level of Application of Evidence		
Individual → Population		

Adapted from Upshur (2001).

In his argument that qualitative research be recognized as a valid form of evidence in clinical practice, Upshur (2001) presents a Synthetic Model of Evidence (Table 2) that is equally inclusive of both qualitative and quantitative methodologies. This model portrays the different "level[s] of aggregation to which the evidence may be applied" (p. 12) from the particular individual level to the general population level. The four types of evidence identified in this taxonomy are categorized into quadrants: (Q1) qualitative/personal, (Q2) qualitative/general, (Q3) quantitative/general, and (Q4) quantitative/personal. Evidence from Q3 and Q4 will be most familiar to clinicians working in the evidence-based practice paradigm. Quantitative/general evidence involves data derived from rigorous quantitative studies that can be applied at a population level, such as a study reporting a 6%–8% prevalence rate of physical abuse among pregnant Canadian women (Muhajarine & D'Arcy, 1999). Quantitative/personal evidence involves data that represent the "quantification of personal beliefs and attributes" (Upshur, 2001, p. 16). For example, Cloutier et al. (2002) interviewed pregnant IPV victims to ascertain their perceptions concerning the overall quality of their relationships with the abuser, and reported that women disclosing more frequent violence characterized their relationships to be of significantly lower quality (odds ratio [OR] = 3.5, 95% confidence interval [CI] = 1.4–8.7).

An individual's beliefs, attitudes, and perceptions may also be rigorously captured in a narrative format, and in the model this type of data is categorized as qualitative/personal evidence. The difference is that the results are not quantified but shared in a narrative format, and the meanings that participants attribute to these experiences are interpreted by the researcher (Upshur, 2001). Data for these studies are collected using techniques common to qualitative research: in-depth interviews, focus groups, observations, and document analysis. For example, in a qualitative study, 36 single mothers and 11 of their children were interviewed to understand how single-parent families strive to promote health after leaving abusive partners/fathers (Wuest, Ford-Gilboe, Merritt-Gray, & Berman, 2003).

Qualitative research findings that examine organizational or health care issues at a "macro" or population level are categorized as qualitative/general evidence (Upshur, 2001). These studies often emphasize an ex-

amination of the political, social, and cultural dimensions of an issue. This type of evidence provides a voice to managerial and decision maker perspectives and may involve policy analyses or the study of organizational decision making. For instance, Ford-Gilboe, Wuest, and Merritt-Gray (2005) interviewed policy makers working in the legal, housing, and welfare sectors to examine the impacts that public policy has on the health status of women and children who have left abusive situations.

Utilization of Qualitative Research Findings

The gap between research production and evidence is becoming increasingly apparent to researchers who anticipate that their research products will be used to facilitate informed decision making by clinicians and decision makers, resulting in improved client or population health outcomes. In the field of study on research dissemination and utilization, researchers are currently developing models to promote the dissemination, adoption, integration, and application of evidence in practice (e.g., Dobbins, Ciliska, Cockerill, & DiCenso, 2002). One of the first steps is to increase awareness among clinicians and decision makers about the different ways in which research evidence can be used and applied in practice.

Health care providers' access to and interpretation of qualitative research evidence is facilitated by commonly presenting the results as detailed and compelling narratives (Cohen, Kahn, & Steeves, 2002; Estabrooks, 2001). However readable the findings, and despite the increasing number of published qualitative studies, the question of utility remains for this form of evidence for both researchers and decision makers (Kearney, 2001; Sandelowski, 2004). If qualitative research findings are to be of value, then it becomes the responsibility of the researcher to explain succinctly to both funding agencies and decision makers "how" this type of research evidence can best be used to inform decisions about public health interventions and policies.

Common classifications of research utilization include instrumental, conceptual, and symbolic (Beyer & Trice, 1982; Weiss, 1979) and, using structural equation modeling, Estabrooks (1999) provides empirical evidence confirming that these modes of utilization exist within nursing.

Instrumental Use

Instrumental use has been defined as the direct use of research findings, particularly in relation to clinical or policy decisions (Amara, Ouimet, & Landry, 2004). The instrumental use of qualitative findings is often limited to utilization by researchers trying to explain results of quantitative studies or to identify concepts for questionnaire development (Morse, 2001; Olson, 2001). For decision makers though, the instrumental use of qualitative research can play a significant role in the program evaluation process through the identification of barriers, facilitators, and unanticipated outcomes, allowing decision makers to identify factors that contribute to program success or failure (Olson, 2001). Another specific instrumental use of qualitative findings is the development of assessment guides arising from qualitatively derived theories (Kearney, 2001; Morse, Hutchinson, & Penrod, 1998). For example, to develop a theoretically and scientifically valid assessment tool, several qualitative research studies describing the processes that women use to end violence and distress in their lives were used to develop the domestic violence survivor assessment (DVSA) guide (Dienemann, Campbell, Landenburger, & Curry, 2002). Morse (2001) cautions, though, that many qualitative studies are merely descriptive narratives that are not developed to the theoretical level appropriate for application. Therefore, the onus remains on researchers to conduct methodologically sound, rigorous qualitative studies and work to raise the level of abstraction of their findings.

Kearney (2001) suggests that qualitative findings can be instrumentally used in the clinical setting to provide anticipatory guidance or coaching to counsel patients. For example, public health nurses home visiting women experiencing IPV may cite findings from Landenburger's (1989) study of entrapment in and recovery from abusive relationships to provide insights about future feelings of ambivalence, anxiety, and self-blame as they consider the option to leave. They may then "counsel" women who leave to build a new support network, acknowledge their loss and grief, and seek medical treatment for ongoing IPV-related health problems. However, I would caution that in this current paradigm of "evidence-based practice," many clinicians may be discouraged from suggesting interventions to clients that have not been tested for effectiveness using experimental methods. Kearney (2001) argues, though, that clinicians commonly

share their experiential knowledge with clients and that the use of qualitative findings is a strategy for legitimizing this knowledge.

Conceptual Use

The conceptual use of research refers to a process of enlightenment in that findings do influence decision-maker actions, albeit in a more indirect and less specific manner compared with instrumental utilization (Beyer, 1997). Conceptual use enables decision makers and clinicians to understand client experiences and provide empathy, to attain an insight into contextual issues, and can stimulate new ideas about common problems (Kearney, 2001; Weiss, 1979). For instance, health care organizations that screen women for IPV may reconsider this decision when presented with qualitative findings from women receiving health care services who revealed that they are not likely to disclose their abuse status voluntarily because of multiple intrapersonal, interpersonal, and societal barriers (Lutenbacher, Cohen, & Mitzel, 2003). Both Kearney (2001) and Sandelowski (2004) argue that conceptual use provides greater value than just enabling decision makers to understand an issue; they stress that in this process of gaining new insight, approaches that are increasingly beneficial to care will be developed.

Symbolic Use

Qualitative research findings may also be used symbolically by decision makers to validate a position, program, service, or policy (Beyer & Trice, 1982). Weiss (1979, p. 429) refers to this as using research as "political ammunition" to support predetermined decisions. For example, a director of a shelter serving women escaping violent relationships may make a decision, unpopular among stakeholders, to publicize the shelter's location. To support and justify her decision, she invokes the lessons learned from a qualitative study (Haaken & Yragui, 2003) that involved interviews with executive directors or staff from domestic violence coalitions across the United States exploring their perspectives on domestic violence shelter practices. In this study, staff from shelters with public locations identified that the benefits included increased financial and community support and greater protection within the community for staff and clients.

Even though symbolic utilization may be perceived negatively or as socially unacceptable (Beyer & Trice, 1982), Weiss (1979) argues that when research is sought out to justify a decision, the findings are championed, implemented, and may influence positive outcomes. Sandelowski (2004) suggests that the "stories" that emerge from qualitative research are important tools for symbolic use and will move individuals to action. The inherent risk, though, is that decision makers who lack critical appraisal skills are equally likely to champion weak studies as they are strong studies.

Conclusion

If public health programs and policies are to be developed to address complex social and health issues, then contributions from both quantitative and qualitative research are required. At the clinical level, when public health practitioners share qualitative research findings with communities and clients, the value of subjective experiences similar to their own is demonstrated. This process may facilitate increased communication, collaboration, and goal setting between the professional and the client (Kearney, 2001). For public health administrators and policy makers, qualitative research is an important tool to study the "black box" or to understand the processes and factors that contribute to the success or failure of interventions or policies. Additionally, policy makers may discover that qualitative research findings can become powerful tools of persuasion.

With respect to the utilization of qualitative findings, the onus must fall on qualitative researchers to conduct studies of relevance to decision makers (Barbour, 2000), educate decision makers about the richness and value of qualitative research, clearly articulate the outcomes of qualitative research to both funding agencies and decision makers, dispel the myth that qualitative findings are not broadly generalizable (Sandelowski, 1997, 2004), and develop context-specific strategies illustrating how the findings can be used by clinicians and policy makers (Kearney, 2001). The state of the science has progressed to a point where qualitative research should no longer be viewed primarily as a precursor to quantitative studies.

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