



HOW TO IMPROVE KNOWLEDGE TRANSLATION OF QUALITATIVE RESEARCH INTO CLINICAL PRACTICE

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ABSTRACT

How can qualitative research findings become more influential as trustworthy evidence on which to base clinical practice decisions? Despite an increase in its visibility, the clinical implementation of qualitative findings remains negligible; instead, knowledge users continue to base their clinical decision making primarily on quantitative evidence (Goguen, Knight, & Tiberius, 2008; Shual, Harker, Roudsari, Groce, Mills, Siddiqi, & Shachak, 2011; Sofaer, 2002).. The purpose of this paper is to describe some of the factors affecting the impact of qualitative findings in the clinical practice of both nursing and medical professionals. This topic is timely and significant because while qualitative research approaches are methodologically and philosophically valid, these approaches remain comparatively lacking in discourse around evidence-based practice and ensuing clinical decisions. These authors continue the academic discussion surrounding the struggle to better translate qualitative research into clinical settings. A brief introduction to qualitative research methods sets a background for endorsing its increased use in clinical practice. The unique contribution of this paper is that practical solutions are provided for incorporating qualitative research into clinical decision-making by healthcare professionals. These are offered to encourage both qualitative and quantitative researchers, clinicians in nursing and medicine, and all knowledge users to take up this problem; despite theoretical and ideological differences, we all have the ultimate goal of utilizing high quality evidence to provide the best care to our patients.

Keywords: Knowledge translation, qualitative research, nursing.

Despite a recent increase in the visibility of qualitative research methods and their suitability to nursing and health related professions that seek discipline-based evidence, these approaches have had limited influence on both the use and discourse about healthcare evidence (Rahman & Majumder, 2013; Shual et al., 2011). Still, knowledge users continue to rely primarily on quantitative findings, particularly in acute care settings (Goguen, Knight, & Tiberius, 2008; Sofaer, 2002). Part of this problem is due to a limited uptake of qualitative findings by those in positions to put them into practice. In part this is resultant from the status quo of an

(over)reliance on a largely quantitative evidence base, as well as traditional disciplinary specific ways of knowing (McLimans, 2013; Parry, 2014). The debate of whether quantitative or qualitative research techniques are superior has become unnecessary because these methods can be viewed as complementary. The purpose of this paper is to indicate how qualitative methods can be effectively used for knowledge translation pertaining to clinical decision making. This paper is distinct in the sense that several practical suggestions are made to increase the use of qualitative research findings in clinical settings. We hope our report will encourage both qualitative and quantitative researchers, clinicians in both nursing and medicine, and all other knowledge users to strive to discover ways to continue this quest. Despite theoretical and ideological differences, we as health care professionals, all have the ultimate goal of using pre-eminent research to inform our clinical practice and thereby provide the best possible care to our patients.

Description of Qualitative Research

The view of qualitative research as the antithesis of quantitative methods is a misconception; both ultimately address outcomes, albeit with different approaches (Popay & Williams, 1998). Qualitative research is a broad classification that, according to Leedy and Ormrod (2013), focuses on capturing the complexity of “real world” phenomena (p. 139). Qualitative researchers aim to question, discover, or identify phenomena occurring in a complex world and to do so by providing thick description of the observational, interview or related data, as opposed to measuring them. Although quantitative researchers strive for objectivity, qualitative researchers acknowledge the possibilities of their own perceptions and in some cases, make use of them (Leedy & Ormrod, 2013; Thorne, 1991).

Unique to qualitative approaches is the fact that theoretical underpinnings are often explicit (Streubert & Carpenter, 2011). Various philosophical approaches form the basis for qualitative inquiry. Illustrative examples of such approaches in nursing research include hermeneutics, critical theory, feminist theory, positivism and post-positivism, and constructivism (Streubert & Carpenter, 2011; Thorne, 1991).

The complex nature of qualitative inquiry arguably requires researchers to substantiate their work through epistemological and ontological definitions. In the context of qualitative research, epistemology refers to the question of “how reality can come to be known, the relationship between the knower and known, as well as the characteristics, principles and assumptions that guide the process of knowing and the achievement of research findings” (Kramer-Kile, 2012, p. 27). These questions of knowledge and knowing influence decisions about the research question, methods used for data collection and analysis, as well as interpretations made by the researcher. In addition, epistemological definitions have implications for knowledge translation, as will be discussed later in this paper. Qualitative researchers also operate within particular ontological views. That is, views about the nature of reality, what exists, and within what context it can be investigated significantly impact research decisions (Kramer-Kile, 2012).

Numerous types of methods can be included under the umbrella of qualitative research, including phenomenology, grounded theory, ethnography, case study, and content analysis (Leedy & Ormrod, 2013). Each type has distinct approaches, and each has strengths and

limitations. As with all research, the method best suited to answering the research question must be chosen with purpose, in order to ensure rigour and validity of the final product. Qualitative research offers the opportunity to look at human life and experience in a different way, and thus provide a more broad-ranging type of care (Streubert & Carpenter, 2011). When done well and with rigour, qualitative research has practical uses beyond simple description of unknown phenomena (Kramer-Kile, 2012).

Rationale for use of Qualitative Research in Clinical Practice

Qualitative research is no longer limited to descriptive studies that are used in strictly academic endeavours, or ancillary steps to “real research” (Miller, 2010; Sandelowski, 1997). The application of qualitative research findings to clinical practice, according to Sandelowski, (1997), and Thomas (2000), has well-established actual and potential advantages. Sandelowski identified several practical uses for qualitative research; direct application, qualitative meta-synthesis and experiments in re-presentation. From this new vantage point, qualitative findings gained more attention from those researchers who were previously skeptical, and a graduate realization of how such evidence could inform health care practices.

Truly understanding the experiences, lives, and bodies of individuals and groups is the central tenant of qualitative research, and can be used to answer any number of clinical questions (Streubert & Carpenter, 2011). Qualitative methods can help bridge the gap between scientific evidence and clinical practice, and qualitative research findings provide rigorous accounts of treatment regimens in everyday contexts (Streubert & Carpenter, 2011, Thomas, 2000). Thomas provided some additional situations in which qualitative findings may be beneficial: topics for which there is little or no previous research; implementation of social policies and changes where quantitative methods are not possible feasible; to provide data about unanticipated impacts of interventions; and as a preliminary research phase that assists the design of subsequent quantitative research (Thomas, 2000).

There are numerous examples of when qualitative findings have been directly applied to clinical problems. Research is ongoing that utilizes qualitative methods such as meta-synthesis, narrative inquiries and case studies to evaluate complex interventions for chronic illnesses such as coronary heart disease, cancer and depression (Calitz, Pollack, Millard, & Yach, 2014; Cooper, O’Cathain, Hind, Adamson, Lawton & Baird, 2014). Bradley, Holmboe, Mattera, Roumanis, Radford, and Krumholz used interview techniques to identify factors that influenced the success of interventions to increase beta-blocker use after acute myocardial infarction in a number of hospital settings (2001). Their qualitative evidence was directly utilized for quality improvement, to advance care for patients with myocardial infarction (Bradley et al., 2001). Kramer-Kile advocated the use of qualitative findings in cardiac rehabilitation nursing, as her findings “make visible the interpretive and material practices of people living with cardiovascular disease” (p. 27, 2012). She utilized in depth interviewing and activity journals to reveal the complexities of engaging in new health behaviours for patients with coronary disease and concurrent diabetes, and provided further insight into how new health behaviours were adopted by these patients. She was able to use her qualitative data to identify barriers and resources encountered by participants, which has implications for improving cardiac rehabilitation (Kramer-Kile, 2012). Meyer (2000) further supported qualitative research use in

clinical settings, “by drawing on practitioners’ intuition and experience, it can generate findings that are meaningful and useful to them” (2000, p. 179), and drew on several examples of qualitative action research influencing clinical practice. She discussed a particularly interesting study that utilized these methods to facilitate closer relationships between staff and health consumers by exploring lay participation in patient care (Meyer, 2000).

There continues to be a debate amongst academics and clinicians in healthcare about what constitutes best evidence, and subsequently which types of evidence are most appropriate for clinical decision making (Howick, 2011). Despite the improved quality and trustworthiness of qualitative research, and its’ clear strengths, the majority of knowledge translated to practice remains quantitative (Barbour, 2000; Miller, 2010). Though quantitative methods and findings certainly have value, empirical approaches have proven to be of limited use in answering some of the perplexing clinical questions that involve human subjectivity and interpretation (Streubert & Carpenter, 2011). Invariably, qualitative methods are able to uncover information that would otherwise have been unattainable using quantitative methods.

Translating Qualitative Findings into Clinical Practice

There is much written about how to ensure rigour in qualitative research (Pope & Mays, 1995). The perceived lack of rigour and quality of qualitative research can no longer be accurately used as rationale for why its’ findings are not translated to clinical settings with the same frequency as quantitative findings; a variety of methods exist to evaluate rigour of qualitative methods (Morse, Barrett, Mayan, Olson & Spiers, 2002; Tobin & Begley, 2004). The slow uptake of qualitative findings into clinical practice is a more complex process.

Evidence-Based Practice and Qualitative Research

Any practitioner who wishes to provide evidence-informed care for their patients must become skilled at formulating and asking appropriate clinical questions (Facchiano & Hoffman-Snyder, 2012). It follows that the types of clinical questions that qualitative research can answer differs from the questions that quantitative research can answer. Part of the difficulty is that the value of qualitative research as evidence for clinical decision making is not immediately recognized by all practitioners and knowledge users. The evidence based practice (EBP) movement has had a powerful influence on nursing, medicine, and healthcare in general, and has perhaps focused too heavily on quantitative findings (Thomas, 2000).

Nursing education and practice has evolved from the days of strict EBP to “evidence-informed practice” that applies evidence from a broad array of research, clinical expertise, client preferences, and other available resources to make nursing decisions with clients (CNA, 2010). Though education practices have changed, Goguen, Knight, and Tiberius identified that medical students continue to be taught a largely unchallenged view of “scientific research” derived from a positivistic model that also omits to teach that quantitative research is not infallible (2008); medical students and physicians are educated and socialized to view quantitative research as the gold standard of evidence for treating patients, while non-empirical qualitative methods are ignored or not sufficiently valued (Goguen et al., 2008).

Another reason for the disparity of qualitative findings in the clinical world is the insufficient publication of qualitative research in high impact medical journals. Published medical research remains predominantly quantitative, with randomized controlled trials (RCT) at the top of the well-established evidence hierarchy, and systematic reviews of RCTs considered the highest level of evidence (Shuval et al., 2011). This may propagate the reluctance for clinical (and non-clinical) researchers to undertake clinical qualitative research; if high impact journals are less likely to publish qualitative work, then researchers who are required to maintain a level of efficiency may be less likely to do it. In summary, a strong evidence base must exist for knowledge users to safely and appropriately utilize qualitative research findings in their clinical decision making; researchers and journal editorial boards should work towards developing sufficient volumes of published and accessible qualitative findings for reference. As the volume of rigorous and clinically applicable qualitative research increases, journal reviewers will be better equipped to judge and critique these works according to standard journal guidelines. In this way, publication standards for qualitative research will also be upheld (Podolsky, Greene & Jones, 2012).

It is beyond the scope of this paper to attempt to address the publication bias in full scope, but it should suffice to say that this is part of the requisite transformation of how evidence is viewed in healthcare. Researchers must provide high quality qualitative works, written in ways that inform individualized conversations (Greenhalgh, Howick & Maskrey, 2014). Likewise, knowledge users and key stakeholders journals should call for the same.

Disciplinary Specific Ways of Knowing

Another barrier to translation of qualitative evidence is that disciplinary specific ways of knowing determine what is accepted as evidence in that field. Over three decades ago, Carper (1978) contended that “It is the general conception of any field of inquiry that ultimately determines the kind of knowledge the field aims to develop as well as the manner in which that knowledge is to be organized, tested, and applied” (p. 13). In nursing, the postmodern and pragmatic acceptance of the principle that multiple forms of knowledge exist is not new to the nursing profession (Garret & Cutting, 2014). Carper’s 1978 patterns of knowing have been taught as an epistemological basis for nursing for generations. Though direct application of Carper’s principles to clinical decision making may not make a significant impact on practice, these ways of knowing, empirical, esthetic, personal knowing, and ethical, allows for the acceptance of multiple, if not infinite forms of knowledge (Garret & Cutting, p. 9, 2014). In my opinion, this acceptance awareness is indispensable to clinical practice. In this way, nursing as a profession is traditionally proficient at accepting knowledge (or evidence) that is integrated, inclusive and varied. Carper’s fundamental assertion is that understanding patterns of knowing, even acknowledging that there *are* different ways of knowing, is an essential process (1978); this prepares nurses to appreciate the complexity and diversity of the knowledge we have and use in practice (Carper, 1978). The ability to appreciate, albeit with a critical eye, various way of knowing translates well into nurses’ ability to recognize the potential use of qualitative research findings in specific patient contexts; these settings and contexts more traditionally applied only quantitative findings (Mclimans, 2013).

In contrast, a number of authors espouse distinctly different ways of knowing in medical education and practice (McClimans, 2013; Parry, 2014). McClimans and Parry both discussed expectations that medical students and physicians are to use measurement and clear scientific evidence to base their clinical decision making about patient care (2013; 2014). Howick extended this in his 2011 book, affirming that “medical education is centred around the primal importance of mechanistic knowledge and expertise” (p. 189); methods of medical education and the resulting disciplinary knowledge may exclude the possibilities of other, non-scientific ways of knowing. The latter perspective thereby evokes a potential barrier for qualitative research evidence to be truly accepted and thus routinely applied in all clinical contexts.

The fundamental message is that there exists varied disciplinary specific ways of determining what counts as usable and/or credible evidence. Educational institutions vary in their teaching, and though these statements are somewhat general, largely this is the state of things (McClimans, 2013; Parry, 2014). Optimistically, healthcare students in all disciplines will be educated to accept the myriad forms in which evidence can be formatted, and as a result base their eventual clinical decision making on a critical appraisal of a variety of evidence.

Practical Solutions for Translating Qualitative Research Findings to Clinical Practice

The following is a discussion of practical solutions to increase the influence of qualitative research findings in clinical practice.

New Discourses

Often, the beginning steps for change are altering taken-for-granted discourses. In the past, the common rhetoric has been that the quality and rigour of qualitative research must improve, and this is why it was not seen, valued, published, or used in clinical settings (Shuval et al., 2011). This is no longer the case, qualitative research has vastly improved, and standardized and recognized methods are used to evaluate its’ quality (Miller, 2010; Shuval et al., 2011). As these concerns have all but been eradicated, what else can be done to improve the application of qualitative findings into clinical practice?

First, the common and accepted discourse surrounding evidence in clinical practice EBP should be reformed. Clinicians and other knowledge users should remember to consider qualitative findings when looking to answer clinical questions when appropriate. Although the end goal is the application of qualitative research findings to practice, this starts with a change in the clinical discourse. It is our responsibility as healthcare professionals to engage in inter-professional discussions surrounding our discipline’s knowledge and research findings. Making others aware of eminent qualitative findings that have been successfully translated into clinical practice is a beginning step towards shifting the limiting discourse (Miller, 2010, Bailey, 2002; Chenail, 2011; Parry, 2014).

Clinical Practice Guidelines

The Canadian Medical Association (CMA) defines clinical practice guidelines (CPG) as systematically developed statements based on best available evidence to assist clinicians including nurses, physicians, pharmacists and other professionals to inform daily practice

decisions (Davis, Goldman & Palda, 2007). These are typically the standard decision making tool for the clinician. The systematic process of developing CPGs is meant to ensure that they are based on the best available evidence, supplemented by clinical expertise and patient preferences (Davis et al., 2007). The CMA acknowledges the value that qualitative findings have in development of CPGs (Davis et al., 2007). It would be helpful if stakeholders used qualitative findings to inform the development of these guidelines as appropriate

Clinical Qualitative Research

Another possible way of addressing the disparity of qualitative research in clinical settings is through explicitly undertaking clinical qualitative research. Clinical qualitative research is a term used to describe a type of qualitative research that has direct practical outcomes (Chenail, 2011). Chenail demonstrates the value of grounded theory methods to fully understand patients' experiences, with goals of taking these findings to make subsequent changes to practice (2011). Bradley, Holmboe, Mattera, Roumanis, Radford, and Krumholz (2001), applied their qualitative findings to identify factors that influenced the success of interventions to increase beta-blocker use after acute myocardial infarction in a number of hospital settings (2001). Kramer-Kile advocated the use of qualitative findings into cardiovascular nursing practice, as "they make visible the interpretive and material practices of people living with cardiovascular disease (p. 27, 2012). Meyer (2000) further supported this idea, "by drawing on practitioners' intuition and experience, it can generate findings that are meaningful and useful to them" (2000, p. 179). Goguen, Knight, and Tiberius (2008) supported the use of qualitative research in medicine and identify its value for clinicians to learn about communication skills, bioethics, and the social determinants of health for example (2008). Streubert and Carpenter (2011) discussed and support a relatively new and exciting area of practical qualitative research in action research in their 2011 book; action research uses community engagement and empowerment to bring about change in practical and long-term ways (2011). Action research has been used effectively to bring about change through generating knowledge that is problem and context specific (Dickinson, Welch, Ager & Costar, 2005). In their study, Dickinson et al. demonstrated that action research brought about positive change for hospitalized older adults; meal times and ward environment were adjusted according to needs identified by these patients (Dickinson, Welch, Ager & Costar, 2005).

Mixed Methods

A new and exciting trend in healthcare research is the use of mixed methods approaches. Interventions for managing a multitude of chronic illnesses are becoming necessarily complex; the burden of chronic physical and mental illness is undeniable, and complex interventions are required to address risk factors that are both physical and behavioural (Calitz, Pollack, Millard, & Yach, 2014). To answer clinical questions about the effectiveness of complex interventions, qualitative research has unique benefits when used alongside quantitative methods (Cooper, O'Cathain, Hind, Adamson, Lawton & Baird, 2014). Cooper et al. suggested the use of qualitative methods to optimize participant recruitment, improve informed consent strategies, identify potential troubles with the protocol, provide additional insights into mechanisms behind behaviour change, or to help interpret trial findings (2014). Encouragingly, policy in the UK recommends that both quantitative and qualitative methods are necessary to evaluate complex interventions (Craig, Dieppe, Macintyre, Michie, Nazareth, & Petticrew, 2008). If both

researchers and knowledge users continue to combine their expertise to undertake this research and utilize these findings, significant progress in the care of patients will be made.

Conclusion

In spite of a recent increase in the visibility and rigour of qualitative research methods and findings, the full potential benefit its application to clinical practice has for patient care is underexplored. Practices that identify only quantitative findings as trustworthy evidence for clinical decision making, restrictive disciplinary specific knowledge, and limiting discourses excludes the application of potentially valuable qualitative findings into clinical settings. As a result, patient care may be suffering.

If potential benefits of qualitative research are to be realized, we must normalize multiple ways of knowing through education, make changes to the rhetorical clinical discourse, utilize qualitative research findings to inform clinical practice guidelines, and endeavour to undertake mixed methods or clinical qualitative research with direct clinical outcomes. It is these illustrative examples of practical and user friendly strategies that gives this paper value as part of the ongoing discussion regarding the low level of application of qualitative research findings to clinical practice decisions. Though quantitative and qualitative research methodologies and those that practice them are often positioned in dichotomous spaces, we all aspire to provide the best care for patients. It is our hope that readers and knowledge users will increasingly value exposing their minds to diverse ways of knowing, and demonstrate increased enthusiasm in the practice, legitimization, and application of qualitative research findings in all health care contexts and thereby enhance the quality of care of the patients we serve.

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