At the Board of Directors (BOD) meeting in Ottawa in October 1999, the Editorial Board of the *Canadian Journal of Public Health* discussed the increasing acceptance of qualitative research as a valid methodology that contributes valuable information to the health field. The BOD recommended that the Editorial Board look into a process for considering qualitative research articles for peer review. After discussion with experts in the field and gathering of samples of peer-review guidelines used by other publishers, the Editorial Board prepared and approved guidelines for the review of qualitative research articles by the *Canadian Journal of Public Health*, and these are included here in both English and French for the benefit of would-be contributors.

Following the guidelines is an article written by Dr. Marcia Hills that describes the contribution that human science research and qualitative methods make to public health, sets the stage for the inclusion of more qualitative studies in the *Canadian Journal of Public Health*, and establishes the context for the criteria suggested for assessing the quality of articles submitted that use qualitative approaches.

*Qualitative Research*

*Foreword*

**Ardene Vollman, Coordinator for insert on Qualitative Research**
**Sheilah Sommer, Chair, Editorial Board, CJPH**
**Doug Angus, Scientific Editor**

*La recherche qualitative*

*Avant-propos*

À la réunion du Conseil d’administration d’octobre 1999 à Ottawa, le comité de rédaction de la *Revue canadienne de santé publique* a discuté du fait que la recherche qualitative est de plus en plus acceptée comme une méthodologie valide qui contribue valablement au domaine de la santé. Le Conseil a recommandé que le comité de rédaction réfléchisse aux possibilités de soumettre des articles de recherche qualitative à l’examen des pairs. Après avoir consulté des experts en la matière et réuni des modèles de directives utilisées par d’autres éditeurs, le comité de rédaction a préparé et approuvé des directives de révision des articles de recherche qualitative pour publication dans la *Revue canadienne de santé publique*, lesquelles sont incluses ici en anglais et en français dans l’intérêt des futurs contributeurs. On pourra aussi lire immédiatement après un article rédigé par le Dr Marcia Hills qui décrit la contribution que les méthodes qualitatives et de recherche en sciences humaines font à la santé, qui présente le cadre d’inclusion d’un plus grand nombre d’études qualitatives dans la *Revue canadienne de santé publique*, et qui établit le contexte pour les critères d’évaluation de la qualité des articles soumis qui se servent d’approches qualitatives.

*Ardene Vollman, coordinatrice de l’encart sur la recherche qualitative*
**Sheilah Sommer, présidente du comité de rédaction, RCSP**
**Doug Angus, rédacteur en chef scientifique**
Human Science Research in Public Health: The Contribution and Assessment of a Qualitative Approach

Marcia Hills, RN, PhD

Historically, public health research has been based primarily in an orthodox scientific paradigm with a resultant focus on quantitative methods and statistical data. This approach has made a significant contribution to our understanding of population data, disease-related issues, and the occurrence of certain health problems. This approach is also helpful in understanding relationships among variables, conveying epidemiological data and generalizing information from a sample group to larger populations. However, with the new public health’s endorsement of an ecological view of health and its recognition of the impact of the determinants of health on the health of the population, a human science paradigm that incorporates qualitative methods is beginning to play a significant role. These methods capture individuals’ experiences and are helpful in understanding why people think and behave as they do. The purpose of this paper is to describe the contribution that human science research and qualitative methods make to public health. Second, this article sets the stage for the inclusion of more qualitative approaches in the Canadian Journal of Public Health and establishes the context for the criteria suggested for assessing the quality of articles submitted that use qualitative approaches. It is worth noting that the term human science is used deliberately rather than “qualitative research.” Although many scholars refer to “qualitative research,” the term “qualitative” is more accurately used to describe methodologies, methods and data rather than an approach to research. Human science research includes all approaches that have people and their experiences as their primary focus, rather than things.

Ecological view of health and the need for qualitative approaches

The new public health endorses the expanded view of health as set out by the World Health Organization. Health, so defined, is a positive concept emphasizing social and personal resources as well as physical capacities. It embraces the ability to realize aspirations, to satisfy needs and to change and cope with the environment. Understanding the inextricable link between people and their environment constitutes the essence of the socio-ecological approach to health. Further, the new public health recognizes that numerous factors determine one’s health status. Although these health determinants are described in varied terms by different groups, they can be summarized as including physical, economic and social environment; lifestyle (choices and chances), individual capacity and coping skills; education; and health services. The endorsement of a socio-ecological view of health and the identification of factors other than physical and biological factors that determine health, suggest that public health researchers need to understand more about people. They need to develop a deeper and more comprehensive understanding of people’s experiences in their social, economic and political contexts.

Qualitative methods provide the means by which to explore and explain people’s experiences in ways that cannot be captured by quantitative methods or reported by statistical data. Although quantitative data can convey some notion about what may be true generally, they cannot be applied to the specific case. So, for example, quantitative methods can gather data and report statistically on the number of young women who smoke and how those numbers compare across years; it cannot tell us why young women smoke or what might influence their smoking behaviour. Qualitative methods contribute to this domain. Because public health researchers are concerned about why people engage in certain behaviour or what are people’s experiences of particular illness, they are turning increasingly to qualitative methods. As they do so, it is imperative that this human science research, with its qualitative methods, meet standards for sound ethical research if it is to be valued and to maintain a similar currency as orthodox science.

Establishing criteria and standards for qualitative research in public health

Human science is based on the assumption that research about and with people is based on a different set of beliefs, values, and assumptions than is research about things. Because their primary purpose is the development of understanding or the creation of new knowledge about people and their experiences, qualitative methods are used by human science researchers to explore human experiences and explicate the meaning that people make of these experiences. The criteria and standards used for judging human science research are different than those used for judging orthodox science. As Khun explains, you cannot assess the merits of one paradigm by the criteria of a different paradigm. The paradigm being evaluated will always be found wanting.

Within human science, each qualitative methodology has its own set of criteria for judging the soundness and quality of the work. In this article, those criteria are synthesized into more general criteria for assessing the quality of human science research.
research in public health. These are discussed within 5 broad headings: integrity; ethics; the research question; sampling; methodology; and methods.

Paradigmatic Integrity

Human science research needs to adhere to a principle of paradigmatic integrity. This means that there must be a consistency among the researcher’s philosophical orientation, the research question (in the way it is posed), the methodology used to frame the research, and the methods used to collect information. Researchers need to present “an argument to connect the choice and practice of particular methods to the way that the problem is conceived and the utility and limitations of the outcome.”3 They must show ontological, epistemological, methodological and axiological consistency of the research. “For the findings to be credible, the research process must reveal a research question that is consistent with the epistemological standpoint and an interpretation of data sources and interpretative strategies that follows logically from that question.”5 p 120 The logic and reasoning of the decisions made throughout the research process should be stated explicitly, not only so that the reader can follow the researcher’s reasoning but also so that another researcher could replicate the study.

Ethics

Ethical principles provide researchers with moral values, principles and standards to guide planning and decision making and to help ensure that the researchers do not inadvertently harm individuals or groups involved in a study. The researchers must inform the participants about the purpose of the research, how the results will be used and how the data will be managed. Ethical principles of research apply as rigorously to human science research as they do to orthodox science. Three primary principles must be attended to and reported on: anonymity, voluntarism and confidentiality. These principles should be described fully to all participants and be included in an informed consent signed by each participant. The researcher’s report should describe how the consents were obtained.

Anonymity means that the identity of individuals or organizations will not be revealed. Participation in human science research must be truly voluntary. Participants must be told that their participation is voluntary and that they can withdraw from the study at any time without concern for retribution or withholding of services or treatments. Researchers must describe how confidentiality will be maintained. The methods used and the data generated in human science research pose significant ethical challenges to researchers. For example, how can the principles of anonymity and confidentiality be maintained when conducting focus groups? Regardless of the methods used and the challenges encountered, the researcher must report how ethical principles were upheld.

Power relationships between the researcher and the research participants is one area of potential harm that is often overlooked in human science research. A naïve researcher can unintentionally coerce participants in interview or focus group situations. Reporting the recognition of this power differential and describing strategies used to diminish it add credibility to the ethical nature of research.

The concern for the “so what” question is of particular interest in public health research. In what Thorne, Kirkham, & Henderson4 describe as a need for moral defensibility, they suggest that “we need convincing claims about why we need the knowledge that we are extracting from people, what will be the purpose in having such knowledge once we obtain it.”(p. 126) We must be concerned about the potential benefit that might be derived from such knowledge and ensure that it is the public and their health agenda who will benefit from our inquiry.

The Research Question

Quantitative and qualitative methodologies are often differentiated based on the size of the sample and whether generalizability of the findings is important. The nature of the research question is also an important characteristic that distinguishes these two approaches. Human science research questions are concerned with people and their experiences. They ask how or why things occur and are interested in perceptions, intentions, beliefs or ideas rather than “facts”. In orthodox scientific research, the posed hypothesis guides the research; in qualitative research, the research question guides the research. When properly posed, the research question directs the researcher to the appropriate methodology, methods and data analysis strategies. However, as van Manen5 reminds us, an interesting dialectic exists between the researcher and the research question. It is this: How one chooses to frame the question influences how one chooses to investigate it. It seems reasonable to expect a certain harmony between the researcher (as a person), the research question and subsequently the method. Therefore, researchers must make their position and bias in posing the question explicit. We can be suspicious of human science research that only finds what researchers thought they would find.

Sampling

The logic underlying sampling in human science research is related to the goal of gaining an in-depth understanding of social issues and people’s experiences. In contrast to orthodox science that uses sampling techniques to allow for generalizations, human science research is not interested in generalizing as much as it is in having thick descriptions and rich texts. Sampling techniques are used in human science research to reach “saturation” or “redundancy”, meaning that no new insights or information are being obtained. Researchers should report on the sampling procedure used to fulfill the criterion of saturation. The criterion against which to judge the appropriateness of the sampling technique is the logic of that strategy.

Methodology

The ongoing debate about the methodological rigour of qualitative approaches is confounded by the lack of consensus about what constitutes scientific rigour and by the diversity of approaches within qualitative methodologies and methods. The “holy trinity”6 of orthodox science – reliability, validity and generalizability – by which quantitative methodologies are judged is not easily translated to qualitative methodologies. Although many authors have attempted to make the translation, it is preferable to think of human science...
arguments for the relative credibility of alternative knowledge claims. Qualitative methodologies and methods are said to be credible, to have truth value, when the descriptions and interpretations are immediately recognizable by either the people who have had the experience or others who have heard or read about it. Several strategies can be used to enhance credibility including member checking, persistent observation, peer debriefing and triangulation.

Because the major threat to credibility may be seen as the closeness of the relationship of researcher to subject, it is helpful for researchers to describe their own experiences in relation to their subjects. It is worth noting that within this paradigm of research, there are numerous participatory methodologies that would view this relationship as a strength of the research rather than as a threat to internal validity and would recommend many other strategies for enhancing truth value.

**Applicability**

Applicability is evaluated by how well threats to external validity have been managed. Applicability can be conceived as whether the findings in one study can be applied to another in a similar setting. In a sense, applicability moves from a question of generalizability to a question of transferability. Can the findings from one study be transferred or useful to a different study? In orthodox science, researchers make generalizations based on representativeness. Guba & Lincoln suggest that, when using qualitative methods, transferability inferences cannot be made to other contexts based on knowing only the context of the studied case. "If there is to be transferability, the burden of proof lies less with the original investigator than with the person seeking to make an application elsewhere." 

**Consistency**

Within orthodox science consistency refers to the reliability or repeatability of testing procedures that lends credibility to the research findings. In this way, reliability is a necessary pre-condition for validity. In contrast, with qualitative methodologies and methods, "reliability in the quantitative sense often undermines validity in the qualitative sense...Variations in an experience rather than identical repetition, is sought." Researchers using qualitative methods focus on the dependability of the process used to generate the data and the findings themselves. One typical strategy is the use of an audit trail. Researchers describe in sufficient detail the decisions and reasoning that guided them so that another researcher can follow their decision making. Typically "thick descriptions" are created that ground interpretations of data in verbatim accounts.

The findings are considered dependable or reliable when another researcher arrives at a similar conclusion based on the research process and data reported.

**Neutrality**

Neutrality refers to freedom from bias. With quantitative methods, objectivity is the criterion for neutrality. Inherent in this criterion is the belief that there is a knower and the known that requires the knower to adopt a posture of objective detachment in order "to discover how things really are." 

There is a presumption that the knower and the known are separate, independent entities that do not influence one another. There is a search for the "truth"; for the facts in objective and quantifiable terms which holds empirical data in the highest esteem. From a human science perspective, there is a valuing of subjective experience that "emphasizes the meaningfulness of findings achieved by reducing the distance between investigators and sub-

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**Credibility**

Lincoln & Guba recommend that credibility, rather than internal validity, be the criterion for evaluating truth value in human science research. When using quantitative methodologies and methods, truth value is present when there is confidence that what is being measured is what was intended to be measured. That is, the researcher can demonstrate that the findings are related to the variables being measured and are not attributable to other factors such as maturation or subject selection. In qualitative methodologies and methods, truth value resides "in the discovery of human phenomena or experiences as they are lived or perceived by subjects, rather than in the verification of a priori conception of those experiences." The quest for absolute certain knowledge is replaced by a conception of defensible knowledge claims. Validation becomes the issue of choosing among competing and falsifiable interpretations, of examining and providing

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ject and by eliminating artificial lines between subjective and objective reality.\textsuperscript{11} p. 54 From this perspective, the researcher’s engagement with, rather than detachment from, the phenomenon is desirable.

Guba and Lincoln\textsuperscript{9} point out that the typical criterion used to judge objectivity is that of inter-subjective agreement, in which that which a number of people experience is objective and that which one person experiences is subjective. They term this quantitative objectivity. They argue for a qualitative sense of objectivity in which they explain “the subjective means unreliable, biased or probably biased, a matter of opinion; and objective means reliable, factual, confirmable or confirmed and so forth.”\textsuperscript{9, p. 95} From this perspective, the criterion of neutrality is confirmability and refers to the findings themselves, not to a characteristic of the researcher.

Methods

“At the heart of the critique about orthodox inquiry is that the methods are neither adequate nor appropriate for the study of persons because persons are to a significant degree self determining... Orthodox social science inquiry methods, as part of their rationale, exclude human subjects from all the thinking and decision-making that generates, designs, manages and draws conclusions from the research. Such exclusions treat the subject as less than self determining persons, alienates them from the inquiry process and from the knowledge that is its outcome, and thus invalidates any claim the methods have to a science of persons.”\textsuperscript{14, p. 325}

It should be apparent that human science research is not driven by a particular method but rather a particular method is chosen because of its ability to address the research question. Simply put, a research method is a way of investigating certain kinds of questions.

Within human science research, the research question almost always deals with people or the human condition. For this reason the methods chosen to investigate the question are qualitative.

Patton\textsuperscript{35} identified three methods for collecting qualitative data. These include: 1) in-depth open-ended interviews with individuals or groups; 2) direct observation consisting of detailed description of peoples’ activities, behaviours, actions and interactions; and 3) document reviews or written accounts which yield excerpts from organizational, clinical, program records, personal diaries, or written responses to questions.

Regardless of the method chosen, the researcher must describe how the method was chosen and why it is the most appropriate method to answer the research question posed.

CONCLUSION

Human science research has the potential to make a significant contribution to public health. It augments orthodox research by providing new knowledge and theory about people and their health experiences. It allows us to deepen our understanding of the context and social determinants that affect health and provides insight about how people think about their health and what influences people to change. For human science research to maximize its contribution to public health, that research must be ethical, rigorous and adhere to sound principles of quality research. As this field continues to evolve, we must continue to examine and document standards of excellence for human science research.

REFERENCES