Original Article

Spirituality, Religion, and Health: the Need for Qualitative Research

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Abstract

Objective: To document the potential of qualitative research as a means of assessing the spiritual domain, as reflected in the literature on spirituality and health reviewed by Larson et al.

Data Source: The systematic reviews of 329 peer-reviewed research studies in volumes 1, 2, and 4 of *The faith factor: an annotated bibliography of clinical research on spiritual subjects*.

Method: Studies were selected for appraisal if the summary provided by Larson et al revealed that qualitative strategies were the primary method used, or if one or more qualitative research techniques were used, even though the prime method was quantitative.

Findings: Of the 26 studies identified as having a potential qualitative component, 14 (4.3 per cent of the 329 studies) included identifiable components of qualitative research. Of these 14 articles, two adhered to eight of 10 qualitative evaluation criteria.

Conclusions: We advocate greater use of qualitative research in the study of spirituality and health.

This article has been peer-reviewed.

Résumé

Objectif — Nous avons cherché étayer l'aptitude d'une recherche qualitative à délimiter le domaine spirituel, comme le laisse entendre la révision par Lawson et ses coll. de la littérature sur la spiritualité et la santé.

Provenance des données — Nous avons examiné de façon systématique 329 études révisées par des pairs dans les volumes 1, 2 et 4 de *The faith factor: an annotated bibliography of clinical research on spiritual subjects*.

Méthode — Nous avons retenu les études dont le résumé par Larson et ses collaborateurs fait mention de stratégies qualitatives ou si, dans ces études, des techniques de recherche qualitative avaient été utilisées.

Résultats — Des 26 études ayant une composante qualitative possible, 14 (soit 4,3 pour cent de 329 études) avaient effectivement une composante de recherche qualitative. De ces 14 articles, deux faisaient appel à huit des 10 critères d'évaluation qualitative.

Conclusions — Nous recommandons un plus grand recours aux recherches qualitatives dans l'étude des liens entre spiritualité et santé.

Cet article a fait l'objet d'une évaluation externe.

Background

In the past decade, the relationship of spirituality and religion to health has received increasing attention. In the most extensive English-language compilation of peer-reviewed studies of spirituality and health, Larson et al published a four-volume series.[1-4] The same group has published a consensus report,[5] an independent study seminar,[6] and an accompanying study guide.

These researchers reviewed 329 empirical studies concerning the effect of religion or spirituality on health. Selection criteria included the use of "acceptable clinical religious variables," and publication in a peer-reviewed journal.[7] The authors observe that while the study's limitations preclude definitive conclusions, there seems to be an association between increased religiosity or spirituality, and better health.[5]

Most of the studies were cross-sectional, point-in-time surveys concerning religious or spiritual beliefs and practices, and health status. Many were retrospective.[8]

Larson et al identified the difficulty of establishing appropriate control groups in these studies. They note that "persons cannot be randomized to become 'spiritual' versus 'non spiritual.'" They also cite difficulties in controlling for "other religious or spiritual factors that may not be measured."[9]

Larson et al's consensus report calls for the use of longitudinal prospective studies, including "observational and descriptive 'natural history' studies that follow patients over time and observe effects on health as a function of their religiosity-spirituality."[10] They suggest that methods must be found to conduct controlled experiments.[11] Yet research methods used in controlled, hypothesis-driven experiments, which generate data suitable for statistical analysis and aim for consistency,

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TABLE 1
REVIEW PROCESS

Phases	Reviewers	Evaluation process	Criteria used	Number of studies eliminated (per cent)	Number of studies deemed qualitative (per cent)
1	Two graduate students with quantitative research experience (O.F., S.O.)	329 study summaries examined for evidence of qualitative design contributing to findings	Any reference to use of qualitative research methods, as outlined by Denzin & Lincoln (aim to be over-inclusive in case of doubt)	265 (80.5)	64 (19.5)
2	One qualitative research specialist (P.B.)	64 study summaries selected in phase 1 reviewed	According to Denzin & Lincoln, as in phase 1 (aim to be over-inclusive in case of doubt)	18 (5.5)	46 (14.0)
3	Two qualitative research specialists (P.B., D.M.)	Independent examination of 46 study summaries selected in phase 2	As per Table 2	P.B.: 25 (7.6); D.M.: 23 (7.0)	P.B.: 21 (6.4); D.M.: 23 (7.0); P.B. or D.M.: 26 (7.9)
4	One qualitative research specialist (P.B.)	Published text of 26 studies selected in phase 3, reviewed for adherence to qualitative research criteria	As per Table 3	12 (3.6)	14 (4.3)

may be inappropriate if the research topic relates to beliefs, perceptions, purpose, values, and subjective experience.[12-14]

Larson et al also observed a conceptual barrier in that there is "little consensus among researchers on what constitutes 'religion' or 'religiousness' or 'religious commitment' not to mention the more nebulous concept of spirituality."[15] Another complication arises in that religion and spirituality are often used synonymously. In other instances, "spirituality" is defined as a more inclusive concept than "religion."[16,17]

Potential of Qualitative Research

Phenomena related to "inner life" and subjective experience are filtered through the complexities of thought.[18] Moreover, modifiers such as meaning, context, and personal history evolve from an individual's interpretation of experience.[12] Thus, meaning cannot be identical for the researcher and subject because of their different terms of reference.

Qualitative research can alleviate these difficulties concerning the accurate measurement of spirituality and health. It enables rigorous prospective research concerning subjective experience while allowing for its complexity.[19-22] The issues being considered are seen in their natural setting rather than in an artificial experimental context or through surveys with pre-selected items. Drawing on several philosophical approaches, including phenomenology, symbolic interactionism, and hermeneutics, qualitative research is used in medical anthropology, medical sociology, family medicine, and health services evaluation.[12,19,22,23] These traditions argue that the social world cannot be understood through deductive experimental methods based on predetermined hypotheses. Qualitative enquiry assumes that the interpretation of experimental instructions or interview questions will vary from person to person, and across occasions, as social behaviour is subjective, unique to the individual, and meaning-specific.[23] Taylor proposed that "we have to think of man as a self-interpreting animal. He is necessarily so, for there is no such thing as the structure of meanings for him independent of his interpretation of them; for one is woven into the other."[24]

The summary of each study reviewed by Larson et al includes the research objective, design, assessment of risk factors and outcome variables, results, and conclusions. The consensus report and the introductory sections to volumes 1 to 4 do not refer to the use of qualitative research. Thus, it could not be determined which studies involved qualitative methods. To assess this, we undertook a detailed examination of the 329 study summaries presented by Larson et al.[1-4]

TABLE 2
QUALITATIVE-RESEARCH GUIDELINES
Adapted from Popay, Rogers, and Williams[26]
- evidence of interpretation of subjective meaning
- evidence of responsiveness to social context and flexibility of design
- evidence of purposeful sampling
- evidence of qualitative data collection methods

TABLE 3
QUALITATIVE RESEARCH EVALUATION GUIDELINES
Adapted from Cobb, Hagemaster[27]
- intention to conduct qualitative research stated explicitly before study
- authors identify conceptual framework for qualitative research strategies used
- qualitative research questions stated before study
- concept of "researcher as instrument," and importance of social context acknowledged
- emphasis placed on understanding social world based on participants' subjective experience
- research approach mainly inductive
- accepted qualitative data collection methods used
- concurrent data gathering and analysis
- hypothesis development occurs late in process rather than at outset
- research report in narrative form

Objective

Our objective was to document the potential of qualitative research as a means of assessing the spiritual domain, as reflected in the literature on spirituality and health reviewed by Larson et al.

Method

The 329 study summaries provided by Larson et al were examined to identify those in which qualitative research methods may have contributed to the findings, including those using qualitative strategies as the primary method, and those that used one or more qualitative techniques even though the prime method was quantitative. Volume 2 of the series was excluded,[2] since it contains an annotated bibliography of systematic review articles rather than individual study summaries.

Definitional Guidelines

During the two initial phases of this review, definitional guidelines were used as criteria to indicate a qualitative study.[18,25] "The word qualitative implies an emphasis on processes and meanings that are not rigorously examined, or measured (if measured at all), in terms of quantity, amount, intensity, or frequency. Qualitative researchers stress the socially constructed nature of reality, the intimate relationship between the researcher and what is studied and the situational constraints that shape inquiry. Such researchers emphasize the value-laden nature of inquiry. They seek answers to questions that stress how social experience is created and given meaning. In contrast, quantitative studies emphasize the measurement and analysis of causal relationships between variables, not processes. Inquiry is purported to be within a value-free framework."[25]

"Qualitative research is multi-method in focus, involving an interpretive, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them. Qualitative research involves the studied use and collection of a variety of empirical materials — case study, personal experience, introspective, life story, interview, observational, historical, interactional, and visual texts — that describe routine and problematic moments and meanings in individuals' lives."[18]

The review process was done in four phases (Tables 1 to 3).

Findings

Of the 26 studies identified in phase 3 as having a potential qualitative component, 14 (4.3 per cent of the 329 studies reviewed by Larson et al) revealed qualitative research methods. Of these 14 articles, two adhered to eight of the 10 qualitative criteria. These two did not combine qualitative and quantitative strategies. Instead, they conceptually identified what they meant by qualitative research, stated the research questions, demonstrated an understanding of the researcher as instrument, demonstrated the use of qualitative data collection techniques, emphasized the participant's subjective response, demonstrated an inductive process of data gathering and analysis, and reported the research in narrative form.

Adherence to Qualitative Research Criteria

Table 4 summarizes the frequency of compliance with each of the guideline evaluation criteria listed in Table 3.

Identification of Conceptual Framework

In two studies, the researchers conceptually identify what they mean by qualitative research. In the first study,[28] both qualitative and quantitative strategies are used. The study draws on sociological exchange theory and phenomenological perspectives in social theory to develop "an empirical and analytic account" of the relationship between religious commitment and parental adjustment after the death of a child. The study does not purport to be a stand-alone qualitative research project. The researchers differentiate between their use of "forced choice" questionnaires, and qualitative open-ended interview questions, and emphasize the importance of qualitative approaches in assessing subjective experience.[28]

TABLE 4
COMPLIANCE OF 14 QUALITATIVE-RESEARCH ARTICLES WITH GUIDELINE CRITERIA

	Number of studies complying with criteria
Intention to conduct qualitative research stated	2
Conceptual framework identified	2
Identification of qualitative research on a component of study	4
Demonstrated understanding of researcher as instrument	0
Emphasis on participant's subjective response	13
Inductive research approach	3
Use of qualitative data collection techniques	6
Demonstration of simultaneous data gathering and analysis	3
Development of hypothesis late in research process	0
Presentation of research report in narrative form	3

The second study[29] also conceptually identifies what is meant by qualitative research. The study's purpose is to describe how participants in spiritual healing groups discuss their health problems, and if "healing" ensues, how resolution occurs over a six-month period.[29] This study compares qualitative data findings with theories on illness and healing practices, drawing on the work of classic medical anthropologists Kleinman and Helman.[30,31] The range of resources to support theories of socially constructed knowledge are used to support the author's conclusion that variations in social perceptions of health affect reported outcomes of healing.[32-34] The researcher builds the case that healing experiences are socially constructed events.[30]

Researcher as Instrument

In all studies, there is little reference to the influence of the investigator-respondent relationship as a determinant in the research process. In two studies, however, the authors emphasize the use of a researcher-driven, discovery-oriented process in attaining a growing understanding of the participants' experience.

Emphasis on Participant's Subjective Response

In 13 articles, emphasis is placed on the need to listen to the participants' subjective view, which are described as "respondents' self-reports," "subjective data," "respondents' narrative accounts," or "personal descriptions."

Most articles report on quantitative research with a minor qualitative component related to subjective responses. Emphasis on the value of respondents' "subjective" perceptions was seldom evident. For example, in one study on teaching spiritual health in medical school, the authors minimize the value of the respondents' self-reports. They underscore the "paucity of literature" using quantifiable religious variables, noting that the "absence of objective measurements...means that any assessment of spiritual health will rely on self-report."[35]

Of the 13 studies dealing with participants' subjective responses, 12 are multi-method studies that emphasize the quantitative component. In these studies, researchers sought to obtain a subjective response through semi-structured interviews, unstructured interviews, or open-ended interview questions. These studies used retrospective cross-sectional designs with the open-ended interview questions. In one study, "32 family caregivers of persons with Alzheimer's disease and 30 caregivers of persons with cancer were compared cross-sectionally to determine whether the type of illness cared for affected the emotional state of the caregiver and to identify correlates of both undesirable and desirable emotional outcomes." Investigators used a semi-structured interview, "which assessed the individual's subjective experience of caregiving." The authors state, however, that they would not present the subjective data in the article.[36] In a few studies, even though the participants' subjective views were sought, standards usually associated with assessing quantitative research are applied. For example, in one study, the authors noted the problem of being unable to obtain a "random" sample. In this study, the purpose was to examine the factors associated with happy marriages among the elderly. The researchers used both structured survey instruments and open-ended interview questions. In the survey component, each respondent was asked to comment on marital satisfaction and rate it on an adjustment scale. The respondent was then asked to answer as he or she felt that their spouse would answer. In the qualitative component, using open-ended questions, respondents were asked what would be their "dictionary definition" of marriage and "their prescription for a happy marriage."[37] While the investigators provide a narrative description of the responses, they also quantify their findings and report that the "elements most frequently found in the respondents' descriptions were isolated and tallied." There were missed opportunities to enrich interview data with observational data. The investigators report: "...although the materials

used in the interviews could typically be completed in about one hour of time, the sessions often ran about two to three hours in length. Interviews frequently became social occasions for both the students (researcher) and their subjects. Coffee, tea, dessert, and in several instances meals, became an unanticipated part of a number of sessions."[37]

Unfortunately, the in-depth interview data and observational data were omitted, and the narrative was limited to the respondents' verbal definition of marriage and prescription for a happy marriage.

In six studies, the researchers categorize responses into sets of quantified variables rather than narrative subjective responses. In one such study, the purpose was to "ask whether personality factors differ among aged persons who use religion to help them to adjust to problems in life and to test whether these differences persist after controlling for sex, age, social class, stressful life events, and health." Participants were interviewed in depth for their report as to how they coped with the worst event of their life, the worst thing in the past 10 years, and the worst thing about the present. For each of the three periods, respondents were asked an open-ended question about how they had kept themselves on an even keel during the stress. Rather than reporting subjective responses verbatim, however, the researchers numerically record coping responses, and categorize these as religious or non-religious. They emphasize the value of analysis through quantification by stating that "these participants might have noted a religious coping behaviour anywhere from zero to three times."[38] As such, the analysis does not reflect a qualitative research perspective.

A similar numerical tabulation of subjective responses to open-ended questions is seen in another study reporting on the use of religion and other emotion-regulating coping strategies among older adults. "A total of 556 emotion-regulating coping strategies were spontaneously offered by the 100 participants in response to the coping questions asked for the 289 stressful events. These were categorized into 25 groupings that maintained specificity yet allowed for enough generality to include all responses...."[39]

In a study of acute hospital services and mortality among religious and non-religious copers with medical illness, respondents were asked open-ended questions to elicit subjective responses. If the response was other than religious, it is designated "non-religious."[40]

In another study, the objective was to evaluate the well-being of converts to religious groups that were foreign to western culture, in comparison to that of converts to mainstream religious groups. Subjects' narrative accounts are reported in thematic form. This is one of a few studies in which the investigators acknowledge that information had to be derived from "extensive semi-structured interviews," since "scales do not allow an assessment of psychological functioning prior to conversion." This statement, however, is accompanied by a caution that the study may be limited by its emphasis on "converts' subjective accounts."[41]

Inductive or Discovery-Oriented Process

The inductive process in qualitative research may vary with the amount known about the topic; furthermore, the researcher may direct the domain of inquiry.[42] Nevertheless, inductive analysis is oriented toward exploration, with the researcher trying to uncover phenomena without imposing expectations on the respondent or the study setting.[14] There are no studies that refer to the use of an inductive process, so articles were examined for evidence of the use of a discovery-oriented or inductive approach through methods such as open-ended interviews or open-ended questions, and for the use of the terms "exploratory," "descriptive," or "phenomenological" to describe the study. Accordingly, three of the 14 articles draw on an inductive or discovery-oriented approach to the research process.

Qualitative Strategies of Data Collection

Under this criterion, we looked for interviews using open-ended questions, observation of participants, and examination of personal documents and other printed materials.

In six studies, participants could give a free range of possible responses using whatever words they wanted to represent their views. The methods included semi-structured interviews, structured qualitative interviews, and open-ended questions that supplemented survey instruments or an experimental study component. Observation methods were used in two studies. None of these studies used content analysis of personal documents or printed materials.

These studies also reveal the common problem of "presupposition" concerning the subject's experience in questions intended to be open-ended.[43] One example appears in a study[44] where the goal was to assess spiritual well-being as a coping resource in 94 persons with diabetes. Rather than simply asking about the experience of living with diabetes, the researchers asked what was "most difficult" about living with diabetes, and what "helped you most."[44]

In another article,[45] the open-ended question was, "If money were not an object, what, if anything, could be done to correct this problem, to make the symptoms go away or be less troublesome"? Rather than eliciting open, spontaneous responses that would allow subjects to answer in their own way, the suggestion "if anything can be done" is imposed. While the interviewer could have used other modifiers instead of "if anything," they have limited the response set by their wording of the question. They also fail to acknowledge the study's qualitative potential. Instead, they advise "caution due to the small sample size, the non-random sampling, and the use of measures of unproven reliability and validity."[45]

Evidence of Ongoing Data Gathering and Analysis

This criterion involves the interpretation of emergent response patterns and linkages. Interpretation goes beyond description, by making inferences and connections, attaching meaning, and organizing data into a narrative. Three articles provide evidence of this pattern of analysis. In other studies, interview data were quantified, and the results used to colour the analysis of the qualitative aspects. An example appears in a study[46] in which patients were asked to speak freely in semi-structured interviews "about their emotional responses to their lung cancer, its diagnosis and treatment, their concerns about family, work, and finances, and the support systems available to them." While some data are reported in narrative form, the analysis emphasized quantification of the emotional responses.[46] The study reports that "23 patients (44 per cent) used terms such as 'sad,' 'crying,' 'tearful,' 'low,' 'rotten,' and 'depressed' to describe the way they had felt at some time since the diagnosis. Terms such as 'frightened,' 'scared,' 'worried,' 'frantic,' 'tense,' 'anxious,' and 'stressed' were used by 15 (29 per cent). Nine (17 per cent) described themselves as having been 'shocked,' or 'stunned.' Seven (13 per cent) used terms such as 'angry,' 'mad,' and 'cheated.' 'Denial' was apparent in eight (15 per cent)....A degree of acceptance was related by 20 (38 per cent)...patients, five of whom even used terms indicating optimism."[46]

The interpretive process in this study's qualitative component is not fully described. An inductive analytical process could have been undertaken. Nevertheless, the researchers resort to quantitative strategies in reporting the data.

Hypotheses Developed Late in Research Process

In all 14 studies, hypotheses are presented before the research, even though all included a qualitative research component. This may have occurred because in most cases, the qualitative component is embedded in a larger quantitative study. Even those purporting to be stand-alone qualitative studies, however, use a hypothesis based on a theoretical construct derived from the literature, whereas hypotheses generally arise from evolving data in qualitative inquiry.

Use of Narrative in Presenting Data

There were three studies that presented study results in narrative form. These reports document the researchers' progressive conceptualization in response to the participants' description of subjective experience.

Although other studies occasionally present data in textual form, findings are most often tabulated into quantifiable categories. For example, in the study regarding respondents' "prescriptions for happy marriages," the findings are described as the "element most frequently found in the descriptions." Issues in the participants' descriptions are then "ranked in order of frequency."[37]

Discussion

While empirical science has proven its effectiveness in studying the pathophysiology of disease and the results of treatment, it is less effective in assessing the subjective experience of illness. Engel observed, "the boundaries between health and disease, between well and sick are far from clear and never will be clear, for they are diffused by cultural, social, and psychological considerations."[47] Others have noted the need to broaden the physiological, social, and psychological domains to include the spiritual domain of illness and suffering.[48-50] Recognizing that the patient's experience of illness cannot exist independent of historical, social, cultural, and spiritual contexts, qualitative health research is being used to address these issues.

Larson et al call for more quantitative research in the form of randomized trials. We suggest the need to add qualitative research in assessing domains of subjective experience. The evolving recognition of the value of qualitative research is reflected in the increasing appearance of research papers using this method in peer-reviewed journals and at international meetings.

Our inability to review the full text of all 329 studies or discuss the methods with the original investigators is a limitation of this study. Assuming the accuracy of Larson et al's review, less than five per cent have qualitative research content, and only two constitute single-design qualitative research. Thus, we would expand Larson et al's recommendations[5] to include a more rigorous application of qualitative-research methods in examining spirituality and health issues.

There are advantages to both quantitative and qualitative methods.[19] The research objective will define the most effective strategy for a particular study. While quantitative methods can be used to evaluate large samples in a standardized set of research criteria and to enable the objective testing of theory, qualitative strategies may be more suitable for the study of subjective experience. More attention should be paid to the benefits of qualitative research in the pursuit of knowledge related to spirituality and health.

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