

## Methodologies in Social Health and Diabetes

# An overview of the rationale for qualitative research methods in social health

Heather L. Stuckey

Department of Medicine and Public Health Sciences, Pennsylvania State University College of Medicine, USA

### ABSTRACT

Qualitative research is a primary way to understand the context of diabetes in a person's life, beyond the medical outcomes. Identifying the qualitative issues such as patients' knowledge about diabetes, their beliefs and attitudes, and their relationship with health care professionals can serve as data to determine the obstacles and, in turn, resolutions to those issues in diabetes management. Characteristics of qualitative and quantitative methods are described, with the discussion that both methods are complementary, not conflicting, to further the field of diabetes research.

**Key words:** Diabetes research, psychosocial issues, qualitative research, research methods, social issues

## INTRODUCTION

During my 32 years of having insulin-dependent diabetes, I have listened (more or less) to the advice of physicians and tried to understand how to improve diabetes care and lessen the complications. During that time, it seemed like an integral part of the treatment plan was missing – the thoughts and feelings of the patient. From this insider patient perspective, diabetes care is different than when it is viewed from a distance. It takes courage to inject a needle under the skin four or five times a day, or to start a new medication regimen. It requires persistence to handle a disease that is relentless. It takes understanding to put yourself in the place of a patient who crawls on the kitchen floor while trying to get a cup of juice, trembling in sweat and fuzziness. From a distance, the decisions about medical care and diabetes treatment look different than when they are personal. Until there is a cure for diabetes,

we need to continue to search for the best advances in medical care and listen to the experiences of patients, so that people with diabetes can not only manage their disease but also integrate it into their lives.

Qualitative research is a primary way to best capture participants' lived experience.<sup>[1]</sup> Daaleman *et al.* (2001) selected a qualitative research method “in order to gain a richer and more complete description.”<sup>[2]</sup> Others chose a form of qualitative study to “illuminate the factors that are absent in the (quantitative and correlational) existing literature”<sup>[3]</sup> and to exemplify the “meaning of human phenomena while understanding the meaning of the lived experience.”<sup>[4]</sup> If we do not understand the context in which the person with diabetes is living, and under what social and behavioral constraints, then we cannot know how to treat him or her.

## RATIONALE FOR QUALITATIVE RESEARCH

Even though it may be difficult to quantify, “the meaning patients attribute to an illness does seem to affect how they rate their overall health, and these perceptions may influence treatment effectiveness, psychological symptoms, coping and somatic outcomes.”<sup>[5]</sup> Some health education research suggests that the cognitive approach to treatment for people with diabetes is not adequate.<sup>[6-10]</sup> Rose *et al.*

### Access this article online

<b>Quick Response Code:</b>	<b>Website:</b> <a href="http://www.joshd.net">www.joshd.net</a>

**Corresponding Author:** Prof. Heather L. Stuckey, Department of Medicine and Public Health Sciences, Division of General Internal Medicine, Pennsylvania State University College of Medicine, Mail Code H034 500 University Drive, P.O. Box 850, Hershey, PA 17033, USA.  
E-mail: [hstuckey@hmc.psu.edu](mailto:hstuckey@hmc.psu.edu)

made the clear statement that “pure, cognitive knowledge of treatment appears to have limited significance under routine conditions” (p. 40–41). In addition to a medical approach, participants expressed an approach that reflected respect of them as “intelligent consumers of health care information, and a recognition of some aspects of the context of their lives beyond their chronic illness.”<sup>[11]</sup>

Qualitative research may be used in a number of ways to address the areas of patient care beyond the medical. It is essential to understand the individual’s belief and attitude, motives, demands, or obstacles to understand the contextual experience of the patient. For example, suppose we had asked a number of patients to describe their hypoglycemic events. One patient may describe his feelings of illness and light-headedness as he was walking to temple. After receiving a sweet at the temple, he tells the story of his blood sugar improving. If reduced to a number alone, such as glucose of 55 mg/dl, the findings would lose their context. This deduction has been shown in a qualitative meta-analysis involving 246 people living with type 2 diabetes in seven European countries.<sup>[12]</sup> In this meta-analysis, quantitative studies failed to determine the variables that consistently explained adherence or non-adherence to treatment recommendations. Qualitative studies identified the obstacles to adherence that were common across countries, and seemed to be related less to the issues of the health care system and more to the patient’s knowledge about diabetes, beliefs and attitudes, and the relationship with health care professionals. Qualitative research provides the means to organize and interpret the data, without losing the richness and individuality of the responses. The findings from studies may provide a basis for effective intervention targeted as specific issues identified.

## CHARACTERISTICS OF QUALITATIVE AND QUANTITATIVE RESEARCH

Qualitative research focuses on the study of issues in depth and detail, and tends to center on how people make meaning out of their experiences. Three characteristics of qualitative methodology are: (a) a naturalistic approach, or studying real-world situations; (b) an emergent design and flexibility, or pursuing paths of discovery as they arise; and (c) purposeful sampling, where the sampling is aimed at insight about the research question, not necessarily generalizable to a population,<sup>[13]</sup> and participants are chosen according to specific, purposeful criteria. The typical data collection methods in qualitative research (the use of interviews, long-term observations, and the use of documents or artifacts that add meaning to, or are used or created in the research context) focus on how participants

make meaning of their lives individually or in social contexts.<sup>[14,15]</sup> The key differences between qualitative and quantitative data are described in Table 1.<sup>[16]</sup>

Even though the purpose of qualitative research is different from that of quantitative, it does not mean that the two research paradigms are in conflict with each other; rather they are often complementary.<sup>[17]</sup> The quantitative research determines what is happening on a population level, and qualitative research can be used to determine why and how that phenomenon is occurring.

A current study using both qualitative and quantitative methods is the second Diabetes Attitudes, Wishes and Needs (DAWN2) study that enables cross-country comparisons of psychosocial outcomes for benchmarking and sharing of better practices to improve patient care. Quantitative survey questions were developed to assess self-management, attitudes/beliefs, health-related quality of life, social support, and priorities for improving future diabetes care. Qualitative open-ended questions were asked to determine successes, wishes for improvement, and challenges, as well as to evaluate the narratives of experiences that had a significant impact on the management of diabetes. Participants were 8596 adults with diabetes across 17 countries. As the lead qualitative researcher for the DAWN2 study, my role is to analyze and code the stories, which are rich with instances of “why” and “how” certain disparities exist within diabetes care and the clinical improvements that can be made. Within each issue of the *Journal of Social Health in Diabetes*, there will be a description of the methods and findings of the DAWN2 study.

## CONCLUSION

This article serves as an introduction to the ways in which qualitative research can inform diabetes research. The next

**Table 1: Comparison of qualitative and quantitative research**

Qualitative research (interpretive)	Quantitative research (positivist)
Assumption is that variables are complex, interwoven, and difficult to measure	Assumption is that variables can be identified and relationships measured
Research purpose is to contextualize, understand, and interpret	Research purpose is to provide generalizations, cause explanations and predictions
May result in hypotheses and theory	Begins with hypotheses and theory
Researcher as the instrument	Uses formal instruments
Inductive	Deductive
Searches for patterns	Component analysis
Uses words and narrative to invoke meaning	Uses numerical indices to invoke meaning
Determines the “why” and “how”	Determines the “what”*

\*Added by Stuckey; not part of the original table

issue will describe how to design diabetes interventions using qualitative research.

When faced with a chronic illness, whether for ourselves or those close to us, we will ask questions about how to make sense of our disease. Both a physician and a patient with multiple chronic illness said, "Any health condition that's ongoing, that's limiting in any way, that's painful or fatiguing, requires an understanding of not only the condition, but of who we are and how we're going to deal with it."<sup>[18]</sup> Qualitative research is one way to help us toward that common goal of improving the lives of people with diabetes and their caregivers.

## REFERENCES

1. Narayanasamy A. Spiritual coping mechanisms in chronically ill patients. *Br J Nurs* 2002;11:1461-75.
2. Daaleman TP, Kuckelman-Cobb A, Frey B. Spirituality and well-being: An exploratory study of the patient perspective. *J Soc Sci Med* 2001;53:1503-11.
3. Lyons MA, Jacobson SS, Prescott B, Oswalt D. Women's experiences during the first year following diagnosis. *South Online J Nurs Res* 2002;3:1-26.
4. Sturge-Jacobs M. The experience of living with fibromyalgia: Confronting an invisible disability [Electronic version]. *Res Theory Nurs Pract* 2002;16:19-31.
5. McFarland KF, Rhoads DR, Campbell J, Finch WH. Meaning of illness and health outcomes in type 1 diabetes. *Endocr Pract* 2001;7:250-5.
6. Chan YM, Molassiotis A. The relationship between diabetes knowledge and compliance among Chinese with non-insulin dependent diabetes mellitus in Hong Kong. *J Adv Nurs* 1998;30:431-8.
7. Koch T, Kralik D, Sonnack D. Women living with type 2 diabetes: The intrusion of illness. *J Clin Nurs* 1999;8:712-22.
8. McDonald PE, Tilley BC, Havstad SL. Nurses' perceptions: Issues that arise in caring for patients with diabetes. *J Adv Nurs* 1999;30:425-30.
9. Rose M, Fliege H, Hildebrandt M, Schirop T, Klapp BF. The network of psychological variables in patients with diabetes and their importance for quality of life and metabolic control. *Diabetes Care* 2002;25:35-42.
10. Skinner TC, Cradock S, Arundel F, Graham W. Four theories and a philosophy: Self-management education for individuals newly diagnosed with type 2 diabetes. *Diabetes Spectrum* 2003;15:75-80.
11. Thorne SE, Harris SR, Mahoney K, Con A, McGuinness L. The context of health care communication in chronic illness. *Patient Educ Couns* 2004;54:299-306.
12. Vermeire E, Hearnshaw H, Rätsep A, Levasseur G, Petek D, van Dam H, *et al.* Obstacles to adherence in living with type 2 diabetes: An international qualitative study using meta-ethnography. *Prim Care Diabetes* 2007;1:25-33.
13. Patton MQ. *Qualitative research and evaluation methods*. 3<sup>rd</sup> ed. Thousand Oaks, CA: Sage Publications; 2002.
14. Denzin N, Lincoln Y. *Handbook of qualitative research*. 2<sup>nd</sup> ed. Thousand Oaks, CA: Sage Publications; 2000.
15. Marshall C, Rossman G. *Designing qualitative research*. Newbury Park: Sage Publications; 1999.
16. Glesne C. *Becoming qualitative researchers: An introduction*. 4<sup>th</sup> ed. Boston, MA: Pearson Education; 2011.
17. Creswell JW, Plano-Clark VL. *Designing and conducting mixed methods research*. 2<sup>nd</sup> ed. New Delhi: Sage Publications; 2011.
18. Milstrey-Wells S. *A delicate balance: Living successfully with chronic illness*. New York: Perseus Publishing; 2000.

**How to cite this article:** ???.

**Source of Support:** Nil. **Conflict of Interest:** None declared.