Chapter 26
Designing & Implementing a Qualitative Research Study: The Vermont Early Hearing Detection & Intervention Example

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Introduction

Qualitative research is a combination of art and science presented through the voices of the subject participants.

It has been the research staple of some fields, such as social sciences, including anthropology, history, and political science (Miles & Huberman, 1994). Through the years, qualitative inquiry has expanded—becoming acceptable in other fields of study, including education, healthcare, family planning, policy analysis, and public health. Qualitative research (Glesne, 2006) is used to understand some social phenomena, create predictions concerning those phenomena, and provide casual explanations. It is the window into day-to-day events and real-life occurrences, allowing the researcher to go beyond snapshots to understanding how and why things happen (Glesne, 2006). Words that are organized into stories or incidents (Huberman & Miles, 1994) that have a concrete, vivid, meaningful message have

Sofie knew and taught me that everyone had some story . . .

Every house held a life that could be penetrated and known, if one took the trouble. Stories told to oneself or others could transform the world. Waiting for others to tell their stories, even helping them do so, meant no one could be regarded as completely dull, no place people lived in was without some hope of redemption, achieved by paying attention.

—Meyerhoff, 1979, p. 240

And how can EHDI programs benefit from this research style?

What is qualitative research . . .

Qualitative research is a combination of art and science presented through the voices of the subject participants.
the potential to be far more convincing to a reader, another researcher, or a policymaker than pages of summarized numbers. One of the trademarks of a good qualitative researcher is the ability to learn to listen, make sense of personal stories or narratives, and interpret and retell the stories. This is not to suggest that the numbers are unimportant but to show that each method qualitative (words) and quantitative (numbers) have value. Combining the two can lead the researcher to powerful findings and conclusions.

Glesne (2006) discusses how the two modes of inquiry—quantitative and qualitative—are frequently contrasted, although there are similar elements in both. For example, both state a purpose, propose a problem or raise a question, define a research population, select research methods, develop a timeframe, collect and analyze data, and present the findings. How the researcher conducts the project determines the inquiry method, and sometimes the two can be combined within one study. Qualitative researchers use such tools as interviews, observations, field notes, focus forums, and demographic questionnaires.

An example of using the two methods of inquiry is the pilot project with homebirth midwives in Vermont. Initially the Vermont Early Hearing Detection and Intervention Program (VTEHDI) initiated a project with midwives to provide hearing screening to babies born at home. A Health Resources Services Administration (HRSA) supplemental grant awarded in 2010 allowed VTEHDI the opportunity to provide hearing screening equipment, training, and education to the 18 licensed midwives in Vermont. The project was introduced through a quality improvement initiative using small tests of change. In 2010, less than 10% of babies born at home received a hearing screening, and by 2015, 87% of infants born at home received a hearing screening. Over the last 6 years, the VTEHDI program has established a collaborative relationship with midwives in Vermont. In 2013, our program wanted to better understand the “why” behind the success of the project. This led to a qualitative inquiry research project with the midwives that included interviews with seven of the licensed midwives, a series of focus forums, and a demographic questionnaire in order to capture the voices of the midwives.

This chapter will describe the various steps in designing, implementing, and analyzing a qualitative study using the Vermont midwife study as an example. The following steps are considered to be best practice and standard process for a qualitative study:

1. Research statement and subquestions
2. Potential significance/contribution to the literature
3. Rationale for qualitative methods
4. Participant selection, description, and rationale
5. Data collection
6. Data analysis, procedures, and presentation of findings
7. Discussion

Research Methodology: Research Statement & Subquestions

One of the first steps in any research project is to identify the question(s) that are central to the proposed research project (Maxwell, 2005). In other words, what is it that you as a researcher want to understand or learn?

In the midwife study, our program wanted to understand midwives’ perceptions of how changing policy and collaborating
with midwives for newborn hearing screening affected the midwives and their practices. The study of midwives’ perceptions of bridging the gap with a public health model for universal newborn hearing screening (UNHS) was needed to fill an obvious gap in the literature. Additionally, it allowed us the opportunity to understand the strengths and weaknesses of our present EHDI program and to identify strategies that would improve services for families who choose to birth their babies at home.

The following research questions were addressed in the study:

1. How do the midwives view the change in VTEHDI policy that includes them in administering UNHS to infants of their clients in the first month after birth?
2. How—if at all—do midwives view changes in their relationship with VTEHDI and the Department of Health through their participation in newborn hearing screening?
3. How do the midwives view their role in providing hearing screening to families of homebirth infants?
4. How do the midwives feel about collaborating with newborn hearing screening?
5. How do the midwives view medical models of care and natural approaches to care with homebirth families?

The conceptual framework includes four main sources (Maxwell, 2005, p. 37):

1. Your own experiential knowledge.
2. Existing theory and research.
3. Your pilot and exploratory research.
4. Thought experiments.

Your Own Experiential Knowledge

Qualitative inquiry encourages the researcher to link to common themes identified across the data throughout the design, implementation, and analysis. According to Maxwell (2005), experiential knowledge is what you bring from your own background, and it is often referred to as bias. Some researchers believe that bias should be eliminated from research studies. Others find it a valuable component, because bias combines aspects of one’s life with research and offers the opportunity to bring expanded insights, hypotheses, and validity checks to the study. This is considered the “I” in qualitative research that influences and informs the study.

Throughout the research with the midwives, it was important to reflect upon my subjective “I” and to be aware of my bias, particularly with my relationship...
with the research participants. Subjectivity, once recognized, can be monitored for more trustworthy research and can contribute to research in a very positive manner (Glesne, 2006). In the case of the midwife study, the relationship with the midwives did indeed contribute to my research. The trustworthiness and bias was monitored by keeping a book of field notes.

**Existing Theory & Research**

The second area—existing theory and research—allows the researcher to go beyond the standard published literature review by expanding into theory that is grounded in research. Theory is what draws your attention to particular events or phenomena and sheds light on relationships that might go unnoticed or be misunderstood (Maxwell, 2005, p. 43).

In the example of the study with Vermont midwives, an extensive search of the literature did not reveal studies related to babies born at home and UNHS. In this study, the net was cast further to include research that was tangentially related, including models of labor and delivery with collaboration between midwives and physicians. The study investigated relationships between midwives, public health, and medical models of care.

**Your Pilot & Exploratory Research**

The third area—pilot studies or exploratory studies—offer the opportunity to test and explore your ideas and theories. In Vermont, a pilot project was implemented with midwives to increase the number of infants born at home that received a hearing screening. The VTEHDI program was able to track the improvement quantitatively, leading our program to want to understand why the collaboration between the midwives and VTEHDI was a successful partnership. The assumption was that a qualitative study would help guide future collaboration with midwives for our program, as well as other public health initiatives in different divisions.

**Thought Experiments**

The final area—thought experiments—challenge the researcher to answer the “what if” questions and explore the logical implications of your models, assumptions, and expectations of the things you plan to study. In the midwife project, one of our program’s initial assumptions was that families of babies born at home were not interested in hearing screening, because it represented a medical model of care. It turns out this was not the case, and in fact what families wanted was the same opportunities as hospital-born infants. The families wanted our program to be culturally sensitive and respect their wishes in having the screening completed in their home or in the midwife office.

In designing a qualitative study, it is important to consider the available literature and entire conceptual framework of the proposed study. The next section will address the design of a qualitative research study.

**Designing Qualitative Research**

**Rationale for Qualitative Methods**

Understanding the various methods available in qualitative research is an important step in designing a study. In education and public health narrative, inquiry is commonly the strategy of choice for a qualitative study. There are, however, other strategies for addressing qualitative research. For the purposes of this chapter and the example of the qualitative study with midwives, narrative inquiry was the strategy that was most appropriate. Narrative inquiry is designed to capture the voices and stories of the study’s participants. The data collection methods include interviews, observations, and focus forums (Glesne, 2006; Schram, 2006). Healthcare and education issues affecting policy implementation, program development, and program evaluation can be effectively explored through using narrative inquiry (Overcash, 2003).
In the example of the Vermont midwife study, narrative inquiry was chosen for two reasons:

- Our program was interested in capturing the voices and stories of the midwives across the state to understand their perspective on partnering with a public health program.
- The goals of the research plan were best addressed through interviewing, observations, and focus forums.

By capturing the stories of midwives, the study provided insight into how our program could improve policies and services to be inclusive of marginalized groups and culturally diverse populations. It was our belief that the study would contribute towards current and future efforts to evaluate and improve VTEHDI’s program policies and procedures for homebirth infants.

**Participant Selection Description & Rationale**

Choosing participants is an important step in designing a study—together with ensuring trustworthiness and validity. Random sampling in quantitative research is most commonly used, because it is appropriate for large, statistically representative samples from which generalizations can be drawn (Glesne, 2006, p. 34). Typically in qualitative research, the sample sizes are small, and most researchers use purposeful selection. The logic and power of purposeful sampling leads to selecting participants that will provide rich and diverse information.

At the time of the Vermont midwife study, there were 18 licensed midwives in the state. A letter was sent to all practicing midwives to ask if they would be willing to participate in a research project. Seven volunteered to participate in the study. They were chosen to participate based on their interest in the research, varying regions of the state, amount of experience as a midwife, varying ages, and number of births attended per year in order to have a cross-section representative of Vermont.

**Data Collection**

The following methods of data collection are commonly used in qualitative research (Maxwell, 2005):

- Interviews
- Observation and field notes
- Focus Forum
- Demographic questionnaire

By triangulating data, using more than one method of data collection allows the researcher to gain a broader and more secure understanding of the issues being investigated (Maxwell, 2005). The study can be approached in two ways: (1) structured and (2) unstructured, allowing the researcher flexibility throughout the study process.

The midwife project was conducted using an unstructured approach (Maxwell, 2005) to allow for flexibility within the study. In moving through the interviews, it allowed for questions to be added or expanded in order to probe more deeply, depending on the conversation. Questions were developed from experiences associated with the VTEHDI pilot project and from themes that emerged in the review of the literature. A sample of the interview questions is included below:

1. Could you describe your current role?
2. Please describe your journey in becoming a midwife?
3. Can you share with us some of the reasons families choose homebirth?
4. Can you describe your interactions with medical personnel in the hospital when you need to transfer a laboring woman?
5. Can you tell us how you feel about offering hearing screening to your families?
6. Can you describe how you feel about working with the VTEHDI program?
In addition to the interviews, there were three observations conducted with midwives and families. We observed midwives while they provided hearing screening to homebirth infants under their care. A field notebook was kept where perceptions were written down, questions addressed, and protocols reviewed. Of particular interest was how the midwives presented the topic of UNHS to the families, how they described the procedure, and their technique as they administered the screening.

A total of six midwives attended one of the focus forums for the purpose of conducting “member checking” (Glesne, 2006) of the analysis and interpretation of the interviews conducted with the midwives. In addition to member checking, the time was used to explore suggestions for policy and process improvement within the VTEHDI. The focus forums were an opportunity for interaction stimulated by questions. Sample questions include the following:

1. How do you perceive the analysis and interpretation of your interviews? Is there anything you would like to change or add?

2. Do you have suggestions for how VTEHDI can improve education and training for midwives who are providing hearing screening services?

A demographic questionnaire was administered to each of the seven participants, which included age, education background, ethnicity, and length of time as a midwife.

Data Analysis Procedures & Presentation of Findings

Data analysis, according to Maxwell (2005, p. 95), is the most mysterious aspect of qualitative research. There are several analytic options, and qualitative researchers use many techniques to organize, classify, and find themes in their data. The researcher still needs to make connections that are meaningful to themselves and the reader (Glesne, 2006). Memos, coding, and cross-case analysis are common analytic options for analysis and data display that are used in qualitative research.

The first step in the midwife study analysis was to listen and review the interviews. The interviews were transcribed and shared with each participant for accuracy and intent. Three techniques in the study were used for data analysis: memos, coding, and cross-case analysis.

Memos

Field notes provided written ideas and included impressions, observations; additional questions; and review of personal perceptions of the interviews, observations, and focus forums. Glesne (2006, p. 59) described the importance of writing memos when conducting qualitative research:

Memos allow you to . . .

- Write feelings.
- Work out problems.
- Jot down ideas and impressions.
- Clarify earlier interpretations.
- Speculate about what is going on.
- Make flexible short- and long-term plans for the days to come.

A field notebook was kept throughout the research, and notes played an important role in emerging codes and themes during interviews, observations, and focus forums.

Coding

The interviews were transcribed, reviewed, and a coding structure developed. Coding is defined by Miles and Huberman (1994) as tags or labels for assigning meaning to qualitative research interviews, observations, and focus forums.
The structure allowed for identification of connections, patterns, and key issues. The coding hierarchy allowed for arranging codes into groups (Gibbs, 2007). As Gibbs (2007) and Miles and Huberman (1994) pointed out, making connections is an important stage of analysis that allows the researcher to move beyond the descriptive level into an analytical level. Following coding and review of the field notes tables, memos and graphic representations (pictures, drawings, etc.) were developed that allowed for identification of common themes across the interviews, observations, and focus forums.

Glesne (2006, p. 147) described thematic analysis as a process that involves coding and then segregating the data by codes into data clumps for further analysis and description, allowing for identification of key connections. During the analysis of the interviews, observations, and focus forums through coding the data, three key themes were identified: Fostering a holistic approach, promoting informed choice, and collaboration.

Cross-Case Analysis

The third type of data analysis used was cross-case analysis. One of the goals of using cross-case analysis was that you are allowed to see processes and outcomes across many cases and develop more sophisticated and powerful explanations of the data and findings (Miles & Huberman, 1994). The study findings were explored to see if they made sense beyond just the one interview or one midwife and to see if they enhanced generalizability (Miles & Huberman, 1994).

For each theme identified, key ideas were obtained from the codes, and a template was created that provided qualitative data to support the theme. This provided the structure to examine codes; analyze the themes; and generalize the data that emerged from the interviews, observations, and focus forums. Cross-case analysis allows the researcher to move from a descriptive presentation of the data to an analytical level. An example of cross-case analysis with the midwife study is shown in Table 1.

Table 1
Theme 3 Cross-Case Analysis: Fostering Collaboration

<table>
<thead>
<tr>
<th>Participant</th>
<th>Partnering with VTEHDI &amp; the Health Department</th>
<th>Partnering with the Medical Community</th>
<th>Building Trust &amp; Communicating from a Place of Mutual Respect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morgan</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Isabella</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Chloe</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Reese</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Rihanna</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sadie</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Megan</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Data Representation

In qualitative research, the term “data display” is defined as a visual format or representation that systematically presents information, so that the researcher can draw conclusions and take needed actions (Miles & Huberman, p. 91). In the analysis of the data, it was important to have the midwives’ voices emerge as a primary representation of the data through quotes and themes. Other data representation options include graphs, drawings, poetic transcription, vignettes, or plays.

Findings

This section is where the researcher presents their data, analysis, and interpretation—the telling of the story. In this section, the researcher is also encouraged to address trustworthiness, validity threats, and personal bias. The qualitative story can be presented in many different ways, including quotes, poetic transcription, stories, and vignettes. The qualitative researcher most often presents data in first person.

There were three themes identified in the study with the Vermont midwives. Theme 3: Collaboration is included below as an example of how the findings of a qualitative study can be presented.

Theme 3: Collaboration
Partnering with VTEHDI & the Health Department

The participants described how they communicated and worked with other providers and programs at the Department of Health. The midwives’ relationship with providers at the Vermont Department of Health has moved along the spectrum from a place of opposition to building a collaborative relationship with a number of departments. They described this emerging collaboration as being partially the result of the partnership between the newborn screening programs and the midwives. Important factors in moving the relationship forward included a high level of trust and mutual respect between the program staff and midwives. This process took time and effort from both groups through effectively communicating and supporting each other.

Similarly, Isabella described her experiences and feelings about bridging the gap and partnering with VTEHDI to provide UNHS to her clients:

I love it, actually . . .

I get this little spark when I say, “We are working with the Department of Health.” I have had great interactions over the years with screening programs and other divisions. You, in particular, approached us with a passion for this. When someone approaches with passion and also comfort, it made it easier for us to grasp onto what you were trying to share. I think the more collaboration we have and the more communication we have, the better care midwives can deliver.

In contrast to the relationship the midwives have experienced with VTEHDI and newborn screening, the experiences in other departments at the Department of Health, as well as other medical providers, have been less satisfactory and less collaborative.

Building Trust & Communicating from a Place of Mutual Respect

The collective participants described the process of building trust in any partnership and coming to the conversation from a place of mutual respect. Participants expressed how they appreciated being thought of as a colleague by VTEHDI. The midwives felt respected and trusted in administering hearing screening and privileged to have equipment provided to them by VTEHDI.

Reese described her experiences with working in collaboration with VTEHDI and providing UNHS to her clients. She found that the program ran smoothly and collaboratively with the midwives:
In all three observations I conducted with the midwives, the trust and mutual respect they demonstrated was obvious. In each screening in front of families, I was asked to give my feedback. The midwives asked for suggestions on changes or improvements they could make to the testing process or how they counsel families on the reason for hearing screening.

**Summary**

In the interviews, observations, and focus forums, the participants emphasized the importance of collaboration at all levels with families, midwives, medical providers, and state agencies. The opportunity for building trust and mutual respect was expressed as a critical component for each of the participants interviewed. In their words, collaboration occurred where there is mutual respect, trust, the ability to listen, and when people can disagree and still come to the table for an open, honest discussion.

Through changes in policy, the VTEHDI program has thrived and is successfully working collaboratively with midwives across Vermont to implement UNHS with their cohort of infants. Another area of policy influence at the Vermont Department of Health is one of the longest-standing advisory councils. The Hearing Advisory Council—comprised of professionals, parents, and community members—serves as an advisory committee for policy development and implementation involving Vermont’s population of deaf and hard of hearing (D/HH) children. It is important for our committee to have diverse representation. As a result of the collaboration between VTEHDI and the midwives, one of the participants in the study volunteered to participate in the council. A second midwife has expressed interest in the council as well. The midwives bring a unique perspective and a wealth of experience to our council.

In other areas of the Vermont Department of Health, midwives have become more involved. For example, Vermont licensed midwives have participated on a committee under maternal child health reviewing infant and maternal mortality rates in Vermont. Additionally, one of the participants in our study participated in a pilot study for electronic reporting of birth data. Previously, the midwives faxed birth data into the Department of Health.

**Discussion**

The discussion section is where the data story and original research questions are brought together for final interpretation of the study. The researcher presents the key and salient findings and discusses the study results. Other areas often addressed in this section include researcher bias, limitations of the study, and future research opportunities.

In the example of the midwife study, the discussion section was the opportunity to address each research question and reflect upon the study outcomes. The midwives’ voices were a key component in this section, as evidenced in Table 2.

### Table 2

**Midwife Study Question**

<table>
<thead>
<tr>
<th>Primary Question</th>
<th>Subquestion #1</th>
</tr>
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<tbody>
<tr>
<td>How do midwives perceive the policy change by the VTEHDI program with planned out-of-hospital birth infants for UNHS, and how has it affected their midwifery practices?</td>
<td>How do midwives view the change in VTEHDI policy that includes them in administering UNHS to infants in the first month after birth?</td>
</tr>
</tbody>
</table>
Changes in Practice & Approach

In the cross-case analysis, the midwives shared how participating in newborn hearing screening had been a wonderful experience that enhanced their collaborative and professional relationships with the Vermont Department of Health—and in particular VTEDHI. As Megan so eloquently pointed out, it was a simple change, but one that made the midwives very happy. The ability to provide hearing screening added a valuable tool to the holistic and family-centered care they offer to their clients. Additionally, having the midwives provide hearing screening opens doors of communication with the VTEHDI staff.

The midwives have added responsibilities by taking on hearing screening, but each of the participants described this as “the right thing to do” for their families. The participants discussed how it has added a level of confidence for them with hearing screening technology and a level of respect and pride in partnering with the Vermont Department of Health through the VTEHDI program. Moreover, it has added a valuable instrument to their midwifery toolkit.

Changing the policy regarding how our program addressed hearing screening in the homebirth population was a transformational change. Burke (2002) described transformational change as one that resulted in a significant modification to the organization or program. In the case of hearing screening in the homebirth population, a noteworthy change was made in how VTEHDI viewed this population of infants and families and how we implemented policy and procedures under the administrative rules for hearing screening in Vermont. The new policy was socially constructed and included the diverse interests of the marginalized groups, midwives, and families in the development of that policy (Heck, 2004).

Providing Education, Training, & Mentoring

The midwives in Vermont all participated in training and education on both the philosophy behind newborn hearing screening and the use of the screening unit. Some midwives were comfortable using the technology from the start, while others were initially intimidated by it. In my cross-case analysis of the participant interviews, observations, and focus forums, all participants expressed how comfortable and confident they have become using the OAE hearing screeners. During the focus forum, participants expressed how they were feeling ready for a deeper understanding of hearing screening: reasons for early detection; and updates on how Vermont is meeting the national standards for screening, diagnosis, and intervention. The participants expressed how this would be helpful for their knowledge base and also in counseling their clients, particularly those who may feel their infant’s hearing is fine.

One of the participants discussed how it would have been helpful to have additional hands-on experience and suggested the use of training videos. Midwifery uses an apprentice approach to training, and this would be a complementary approach for many midwives’ learning styles.

Training, education, and mentoring were identified as major components of the success of the partnership between VTEHDI and the midwives. My role...
as a mentor to the midwives included enhancing their sense of competence, comfort, and effectiveness in providing hearing screening (Avery, 2004). Being given the equipment, trained on its use, and given the respect of being trusted colleagues allowed the midwives to integrate hearing screening into their practices and midwifery model of care. Additionally, my leadership philosophy was closely aligned with an organic approach that supported the core beliefs and values of the midwives. I focused on three key areas of organic leadership described by Avery (2004). The first included understanding the importance of working within a culture, and the second looked at issues through the eyes of the stakeholder. Finally, I focused on the importance of mentoring my colleagues that included the midwives, staff of VTEHDI, and the leadership at the Vermont Department of Health.

Fostering Collaboration for UNHS: Midwives as Partners

According to the participants in our study, collaboration has played a major role in the partnership between midwives and VTEHDI. Collaboration was a key point of discussion and theme throughout the interviews, observations, and focus forums. Additionally, collaboration has always been woven throughout the midwifery model of care. Midwives routinely partner with families, public health program providers, and at times medical providers in the hospital. Friend and Cook (2007, p. 7) described collaboration as "a style for direct interaction between at least two co-equal parties voluntarily engaged in shared decision making as they work toward a common goal." During one of the focus forums, the midwives collectively extended the definition of collaboration further and described a collaborative model as one in which "we listen to each other, we communicate with mutual respect, we share information, and ultimately we build trust."

The participants described mutual respect as one of the most important elements in collaboration. The road to building a collaborative partnership between midwives and VTEHDI was not an easy path. In fact at times it was a bumpy road. Initially, we were met with resistance from the midwives when we asked to discuss hearing screening at a statewide midwife meeting. It was only after I attended an emergency preparedness meeting for Vermont with full knowledge that a licensed midwife was presenting did the door open for discussion. After her lecture, I introduced myself and was able to engage in an hour-long conversation. We discussed the importance of hearing screening, the midwives’ philosophy of informed choice and providing individualized care, and the opportunity for Vermont midwives to provide hearing screening as part of the services they offered to homebirth families. The midwife was excited to bring this opportunity back to her colleagues as an option for homebirth families. Within a few weeks, VTEHDI and newborn screening staff were invited to attend a meeting to update the midwives on our programs. After this meeting, we began the initial trainings and provided three hearing screening units to be shared with the licensed midwife community. Currently there are 12 OAE hearing screeners placed with the midwives across the state.

In reviewing the initial attempts we at VTEHDI made to engage the midwives, we realized how critical it was for us to gain their respect and trust. In each conversation, our program stressed the importance of working as partners to achieve the national goal of screening before the infant reached 1 month in age. I believe my organic leadership style

Subquestion #4

How do midwives feel about collaborating on newborn hearing screening?
provided the catalyst for the development of the collaborative relationship between VTEHDI and the midwives. In this approach, I encouraged shared vision, discussed core values of our organizations, promoted extensive communication, and aligned supporting systems and processes between the midwives and our program (Avery, 2004). Reese, in her interview, described her experience with the VTEHDI program:

"Her comments reinforced the importance of working together as a team in a collaborative model. My philosophy as a leader has supported and encouraged collaboration in the workplace with the VTEHDI team and also with our many external stakeholders in Vermont. One of the important lessons I learned from my research was the critical role collaboration played in the relationship between VTEHDI and the midwives. Our program initially sent mixed messages about collaboration from the midwives' perspective. Much of the confusion arose from a letter our program sent to homebirth families regarding the importance of hearing screening. We had never asked the opinions of the midwives on the effectiveness or appropriateness of our letter. Overall, the letter represented a challenge or barrier to collaboration with the Vermont midwives.

As a leader, it required me to step back and take the time and initiative to listen to the voices of the midwives. Fullan (2007) and Kotter (2012) emphasized the importance of moral purpose, trust, and collaboration. Furthermore, I incorporated my belief in “steward” or “servant” leadership as I developed and built the relationships with the midwives (Greenleaf, 1977). "Stewardship, as described by Greenleaf (1977), begins with the feeling that one wants to serve above all else, and this conscious choice brings one to aspire to lead” (Avery, 2004, p. 130). Once the midwives realized that the VTEHDI program goals were aligned with their core values and beliefs, they embraced the opportunity to collaborate with our program. As an organization, we at VTEHDI shifted our medical model to one that was more culturally sensitive. The collaboration between our groups represented how a mainstreamed institution using a public health model can stretch itself to understand the underlying goals and practices of a more marginalized culture. In doing so, we were able to reach families and midwives who were not participating in UNHS.

Summary

At the Vermont Department of Health, there is an increase in the inclusion of homebirth midwives in the Maternal Child Health Division. Is this a result of the successful partnership with newborn hearing screening and newborn screening? There is a change at the Vermont Department of Health in how licensed midwives are perceived and being included in policy changes and public health processes that directly impact the homebirth population. Examples of those changes include a midwife who now serves on the hearing advisory council, and also one who serves on a committee under maternal child health for infant and maternal mortality rates in Vermont. Additionally, midwives are involved in a pilot project for electronically reporting births, and there is discussion with midwives on how to include them in the testing for critical congenital heart defects (CCHD) using pulse oximetry at 24 hours of age. The screening programs continue to build a culture of trust and mutual respect with the midwives in hopes that other alliances within the Vermont Department of Health will continue to be fostered and develop. I believe a collaborative relationship between these groups has the potential to foster better outcomes and choices for homebirth families."
The Vermont Department of Health has grown in its appreciation of midwives and their practices, and the midwives have simultaneously seen how a collaborative relationship with the Vermont Department of Health actually complements or enhances their practices. There is an opportunity for both the medical profession beyond the Vermont Department of Health and the practice of midwifery to acknowledge their different approaches while viewing them as potentially compatible and beneficial for families. If done carefully and in the spirit of collaboration, we can lessen the dichotomous view of birth as something that is defined through a medical framework or through the midwives’ framework to a perspective that recognizes and appreciates the value of both approaches. We have an opportunity to create transformational change through leadership at the organizational level.

Puccio, Murdock, and Mance (2007) described the goal of transformational leadership as focused on developing others to their fullest potential by encouraging people to be creative, innovative, and challenge their own beliefs and values.

**Conclusions: Qualitative Methods in EHDI Programs**

Qualitative research has the potential to be a valuable tool in successfully and effectively moving the needle forward in EHDI programs. The methodology can be integrated into EHDI systems as part of the analysis and evaluation process. It offers an opportunity for EHDI programs to better understand the impact of quality improvement initiatives in the following areas: family engagement, learning communities, shared plans of care, policy changes, and implementation.
References

Vermont Department of Health Integrated Database, SPHINX.