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Zaltman Metaphor Elicitation Technique: Revealing Link Lecturers', Clinical Professors', and First-Year Student Nurses' Unspoken Thoughts as Images

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Contributor Biographies

Dr. Nirmala Devi (Mala) Arunasalam is a senior academic in the University of Plymouth and affiliate of the Regent's Centre for Transnational Studies, Regent's University London. She is an experienced nurse academic and has taught in a range of undergraduate and postgraduate programs for nursing in Higher Education and worked in a variety of adult clinical settings. She is on the Editorial Board for the journal *Border Crossing*. She is a member of the Higher Education Academy Interest Group for Transnational Higher Education and Organizing Committee for The Migration Conference. She is a reviewer for The Migration Conference, Higher Education Academy International Scholarship Scheme, and Nurse Researcher journal. Her research interests focus on Internationalization in Higher Education, Transnational Higher Education, qualitative research, culture, intercultural communication, and pedagogy, including international pedagogy. The theory–practice link grounded on evidence-based teaching and the realities and needs of practice is at the heart of her teaching philosophy and informs her teaching. It led to her research and the strategies she identified to encourage participation in intercultural classrooms and to enhance the theory–practice link. She pursues pedagogical research by focusing on inclusive, innovative, and online teaching and learning methods to enhance the student nurses', nurses', and mentors' classroom engagement and practice experiences. Her keenness to develop networks led to this collaborative research with the University of South Carolina Aiken, USA.

Dr. Thayer Wilson McGahee is currently the dean of the School of Nursing at the University of South Carolina (USC) Aiken. She has been on faculty in the School of Nursing at USC Aiken since 2005 and served as interim dean from 2013-2015. She currently holds the Ione Wells Hanly/Bank of America Endowed Chair for Nursing and is a Cockcroft Leadership Fellow. She has more than 35 years of professional experience as a nurse, in both clinical and academic arenas. She received her undergraduate nursing degree from Vanderbilt University, her masters from the University of South Carolina, and her PhD in Nursing from the Medical College of Georgia. Her area of clinical expertise is Child Health Nursing. Her current research is related to Service Learning and its effect on the cognitive and affective development of nursing students, and this research has been presented at several international nursing and interdisciplinary conferences. Other research involves comparing nursing education in the United States and England and how faculty help students make the theory–practice link. She is recognized as an educational expert in nursing and has received numerous awards related to her teaching. She has published in the areas of child health nursing, nursing education, and scholarship. She is active in her community and serves on several community boards.

Dr. Betty Abraham-Settles is an assistant professor of nursing at the University of South Carolina Aiken. She has been a medical surgical professor since 2008. She currently serves as chair of the school of nursing admission, progression, and graduation committee and Quality and Safety Education for Nurses (QSEN) coordinator. More recently, she is working with leading the faculty in their work on the school of nursing strategic plan. She recently was accepted as a Cockcroft Leadership Fellow. She has 38 years of experience as a nurse. She has experience in adult nursing as well as academics. She is a BSN graduate of the University of South Carolina Columbia, a MSN graduate of the University of Phoenix, and a DNP graduate of Duquesne University. She has presented research on colorectal cancer in African American men and leveling of QSEN competencies in undergraduate nursing on the national and international levels. She co-presented research internationally on comparing nursing education in the United States and England and how faculty help students make the theory–practice link. She is the recipient of the 2012 Palmetto Gold Award and the 2010 Pi Lambda Chapter of Sigma Theta Tau International Excellence in Teaching Award. She has submitted her research on colorectal cancer for publication. In her community involvement, she serves as a parish nurse and a basic life support (BLS) instructor.

Abstract

In 2015, while on a 1-month sabbatical at the University of South Carolina Aiken, I had the opportunity to observe Dr. Betty Abraham-Settles teaching a group of six student nurses in the clinical setting. This was an insightful experience as in the United Kingdom, academics' role as Link Lecturers is to visit practice settings to provide support to the mentors (responsible for student learning in practice) and student nurses. This invaluable experience led to the development of this collaborative research. A hermeneutic phenomenological approach using the Zaltman Metaphor Elicitation Technique was chosen for data collection. All researchers in this collaborative study agreed Zaltman Metaphor Elicitation Technique would guide the interviews while simultaneously allowing freedom of and evolution of thought. This would reveal emotions, attitudes, intrinsic values, and the behavior of the participants in practice settings. The overarching research questions were to explore the following: (a) How do you see your role as a Link Lecturer/Clinical Professor with your first-year student nurses in the practice settings? (b) As a student nurse, what do you feel your Link Lecturer/Clinical Professor does with you in the practice setting? The Zaltman Metaphor Elicitation Technique with the 11-step semi-structured interview protocol was used. This collaborative research case study provides an account of the methodological advantages and challenges in using a psychological marketing research tool for nursing research. It demonstrates how the tool enabled participants to define, describe, and evaluate their experiences to provide useful and valuable insights.

Learning Outcomes

By the end of this case, students should be able to

- Identify the difference between a research question and an overarching question for data collection with the Zaltman Metaphor Elicitation Technique (ZMET) technique.
- Understand how to use ZMET and the 11 step-interview protocol to collect data.
- Acknowledge that images/pictures can be used to identify psychological, emotional, attitudinal, and symbolic values.
- Evaluate the suitability of each step in the 11-step ZMET interview protocol for research

Case Study

Project Overview and Context

During my 1-month sabbatical in 2015 at the University of South Carolina Aiken (USCA), I had the opportunity to observe Dr. Betty Abraham-Settles during her practice day. On these days, each week clinical professors spend time teaching a group of six to eight student nurses in the clinical setting where they are on placement. This was a new and insightful experience for me as in the United Kingdom all academics have a role as Link Lecturers. However, their role is to visit practice settings to provide support to student nurses and mentors (trained staff who have attended and completed the mentorship program recognized by the Nursing & Midwifery Council). These mentors are responsible for student learning in practice. Being part of this experience led to many discussions as I recognized the value of this approach to student learning in the clinical setting. Finally, it led to the development of this collaborative research with the School of Nursing in the USCA. The focus of this study was to provide an opportunity for student nurses and Link Lecturers/Clinical Professors to voice their views of their experiences to improve the theory–practice connection.

The hermeneutic phenomenology research design was chosen as it enables the participants to reflect on their experiences. The focus is on everyday issues that are unknown and allows researchers to reflect on their pre-conceptions to identify their influence on the research process and outcomes (Van Manen, 2014).

The Zaltman Metaphor of Elicitation Technique (ZMET) developed by Emeritus Professor Gerald Zaltman was chosen to collect data. Although Zaltman and Higie (1993) focused on the voice of the customer being understood, Zaltman and Coulter (1995) believed the hidden thoughts and underlying mental patterns that lead to feelings, actions, and views are also important. It is based on the principle that approximately 95% of thoughts occur at the unconscious level, 80% of communication is non-verbal, and that thoughts are shaped through experiences. These thoughts and emotions occur as images and can be expressed through metaphors (Zaltman & Zaltman, 2008; Christensen & Olson, 2002; Zaltman & Coulter, 1995). This is in direct conflict with previous marketing research activities where the method to collect data was verbal communication (Woodside, 2004).

Participants are given a guiding question(s) prior to the interview. They are informed to bring images or pictures in relation to their views and experiences (Zaltman, 1997). The images or pictures participants bring are used to undertake the 11 sequential steps in the ZMET interview protocol. In addition to participants' thoughts and rational views, each step enables hidden and unspoken thoughts and non-rational factors, such as emotions, attitudes, and behavior, to be elicited. Each step also acts as a validation tool against the previous step in the interview protocol. The researcher uses a critical lens to view the structure, meaning, and essence of participants' lived experiences.

Although this methodology is commonly used for marketing research, it has also been modified to suit varying studies and disciplines (Plummer, Forr, & Bressette, 2012). In this study, the ZMET data collection method was preferred by all researchers because this methodology would guide interviews while simultaneously allowing freedom of and evolution of thought. Furthermore, the images participants choose based on the guiding question would reveal unspoken thoughts, feelings, and experiences that influence Link Lecturers/Clinical Professors and first-year student nurses in practice settings.

The overarching research question for Link Lecturers/Clinical Professors was, "How do you see your role as a Link Lecturer/Clinical Professor with your first-year student nurses in the practice settings?", whereas the overarching research question for first-year student

nurses was, “As a student nurse, what do you feel your Link Lecturer/Clinical Professor does with you in the practice setting?”

Research Practicalities

Using a valid and reliable semi-structured tool like ZMET meant the pilot study undertaken could focus on its relevance to nursing research. The tool was piloted with one link lecturer, one faculty staff, and four third year students (two in the United Kingdom and two in the United States). All participants were requested to bring eight images/pictures for the interview. The trial study highlighted that not every stage in the 11-step interview process was relevant for nursing research. Furthermore, requesting participants to bring only eight images allowed them time to reflect and voice their views, thus providing in-depth data.

Participants were given the guiding question 2 weeks prior to the interview to enable them to choose images/pictures. They were also required to bring these to their interviews. It became evident during the first interview that the participant had their chosen images on two sheets of paper. This meant both the researcher and participant had to take time during the interview to cut these images so that Step 4 of the 11-step process could be undertaken. Hence, for the main study, participants were requested to email the images/pictures to the researchers prior to attending the interview. The researchers cut out each image and these were given to the participants when the interview commenced. It gave participants more time to reflect and voice their perceptions, emotions, and experiences.

In this research, the first Link Lecturer to be interviewed misunderstood what was required. The interviewee had sent the images by email and as I printed the images in preparation for the interview, I realized that their images/pictures were health and practice setting related. On commencement of the interview, I checked with the interviewee to determine whether these images had been chosen intentionally. It became evident that the participant had misunderstood the question. The participant had thought the images had to be from their link area; thus, they had gone to their link area and taken photographs relating to their perceptions. The participant was given the option to decide whether they wanted to choose other images. It would mean discontinuing this interview and agreeing on another date for the interview or to continue with the interview. They chose to continue and used the images to relate to their experiences. Following this experience, all other participants were informed prior to choosing and sending the pictures/images that the images were to depict how they perceived the question and their experiences. It did not have to necessarily relate to their own practice settings.

The interviews were transcribed verbatim, so they could be studied for similarities, differences, patterns, and themes. The data collection, data transcription, and data analysis were all labor-intensive processes. However, it was interesting to identify how the images chosen revealed participants’ views, feelings, thinking patterns, and influencing factors through the 11-step interview process.

Research Design

An interpretive hermeneutic phenomenological approach was used in this study. The founding fathers of this approach are Edmund Husserl (1859-1938) for descriptive phenomenology and Martin Heidegger (1889-1978) for interpretive phenomenology. However, other forms of phenomenology have evolved with qualitative research. Hermeneutic phenomenology (Van Manen, 2014) is one of those, and the word hermeneutics

means to interpret in Greek. This type of research design focuses on the experiences of a person or persons and the discovery of phenomena experienced by the subjects. The development of this approach assumes the premise that description is an interpretive process, and all forms of human awareness are interpretive in nature (Kafle, 2011). The underlying assumption of this research methodology is that the basic and most fundamental experiences a human has are full of meaning. This method of qualitative research is an excellent vehicle for deepening our understanding and interpretation of lived experiences.

Hermeneutic phenomenology goes beyond the basic tenets of descriptive phenomenology to discern meanings that are not obvious and apparent. During data collection, the researcher enters into conversation and dialogue with each individual subject and maintains a stance of openness throughout (Wilcke, 2006). Open-ended questions are used, and throughout the dialogue, more specific questions may emerge as the researcher listens and facilitates the dialogue. In this type of research, there are no hypotheses or theories to be tested. Transcripts of the conversations with each participant are recorded, transcribed verbatim, and then coded by the researcher. Recurring patterns from the data may emerge, and these are called themes. In using an interpretive stance, the researcher moves to a neutral position to reflect objectively on the participants' realities to generate findings and make judgments for readers of the text (Denzin & Lincoln, 2005).

Method in Action

Overarching questions on a topic are used with ZMET rather than clear and focused research questions or questions tied in with hypotheses. It is challenging to develop broad guiding questions that are not "leading" questions. We started off by identifying key words in this area of our interest. Then, we worked on ensuring the key or central issues of the research were integrated within the broad question. It was also important that the question was clear and simple to reduce the risk of misunderstanding.

For this research, the two groups of participants, Link Lecturers/Clinical Professors and first-year student nurses, were each given one guiding question. The guiding question for the academics/faculty staff was, "How do you see your role as a Link Lecturer/Clinical Professor with your first-year student nurses in practice?" As the Link Lecturer/Clinical Professor's role was different, we decided to find out how the Link Lecturers/Clinical Professors perceived their role. This would provide information of how they undertook their role, communicate, and work in practice to ensure the theory–practice connection.

With the first-year student nurses, it was important to identify their understanding of the role of Link Lecturers/Clinical Professors. Their views would provide insight into what Link Lecturers/Clinical Professors do in practice and enable the student nurses to make the theory–practice connection. The first-year student nurses' overarching question was, "As a student nurse, what do you feel your Link Lecturer/Clinical Professor does with you in the practice setting?" The researchers were also keen to compare the results of the interviews to find similarities and differences in the academics/faculty staff and student nurses' views as nurse education differs in the United Kingdom and the United States. This would identify ways to improve the theory–practice connection for first-year student nurses.

Initially, the researchers were concerned about the small number of participants that Khoo-Lattimore, Thyne, and Robertson (2009), Sease (2005), Zaltman and Coulter (1995) recommended. A total of six Link Lecturers/Clinical Professors and six student nurses from each institution were invited to take part in the in-depth interviews. Each interview lasted

approximately 1 hour, but the Link Lecturers/Clinical Professors' interviews tended to be longer than the student interviews. Although one Link Lecturer misunderstood the question and brought images from their clinical area, they were still able, like each of the other subjects in the study, to answer the questions and reflect on the images brought to the interview.

Khoo-Lattimore et al. (2009), Sease (2005), Christensen and Olson (2002) and Zaltman and Coulter (1995) pointed out that data saturation to achieve validity for ZMET interviews would be achieved with four to five participants. In this study, we found that data saturation was achieved with six participants.

Practical Lessons Learned

1. The pilot study undertaken enabled the researchers to determine the number of images all participants had to choose and bring to the interview.
2. The pilot study was essential to identify the relevance of each stage in the 11-step interview protocol for this nursing research.
3. The pilot study identified that Step 8, where participants were asked to put aside all the images and concentrate on their sense of smell, taste, sound, touch, color, and emotions, was irrelevant for this study as it was not marketing research.
4. Limiting the number of images that participants chose to eight meant all interviews were focused.
5. The pre-data collection guiding questions and 11-step ZMET interview protocol ensure reliability.
6. All the eight images or pictures participants brought were used as it showed their perception of the key issues within the guiding question.
7. Participants who were not readily responsive when asked to express their thoughts were encouraged by reiterating the anonymity of their views.
8. The use of images/pictures in the interviews enabled participants to reveal their conscious and unconscious and rational and non-rational thoughts to tell a deeper and richer story.
9. Each step within the ZMET interview protocol was focused, and it justified the previous step while interviewing.
10. ZMET is a labor-intensive data collection method for both the researcher and the participant as each image must be questioned with the laddering technique of the interview protocol.
11. ZMET has the potential to be applied in hermeneutic phenomenological nursing and health care research.
12. The findings provided different types and levels of insights based on psychological, social, and cognitive information.
13. The limitation of using ZMET is that small sample sizes are used as it is mainly used for studies that do not require the findings to be generalized to other populations.
14. Participants also knew the researchers; thus, it may have led to limited views and discussions during the interview.

Conclusion

In this case study, we attempted to unravel, examine, and illustrate how we used ZMET, a psychological marketing research tool for a nursing research to obtain rich and in-depth data. The researchers' backgrounds as previous student nurses and current roles as Link Lecturers/Clinical Professors were similar to the experiences of the sample groups for this

research. Thus, an interpretive hermeneutic phenomenological approach was chosen and enabled the researchers to obtain participants' views and experiences.

Exercises and Discussion Questions

1. Interpretive hermeneutic phenomenology was used as the research method in this research case study. How does this type of phenomenological approach differ from other phenomenological approaches? Was it the most appropriate method for this particular research case study?
2. The ZMET used in this research case study was developed as a commercially patented marketing research technique. Do you believe it is an effective tool to use in qualitative nursing research? Explain why you think it is or is not.
3. Do you believe the images/pictures/metaphors the participants brought with them to the research interview were a useful tool to help them elicit conscious and unconscious thoughts? Can you think of other tools that could have been as effective in doing this?
4. One of the primary benefits in utilizing the ZMET for research is that each step justifies the next step. Do you see a problem with this in that each participant could possibly be asked different questions?

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