

Using the Internet for Qualitative Research in Nursing

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Introduction

The nature of qualitative research lends itself to the use of the Internet for a variety of reasons. The Internet can be used for recruitment and provide immediate feedback from participants, either through online interviewing, or open ended questionnaires. Interviews may be conducted online with a set list of guiding questions, and follow up can be accomplished with email communication. If information is received in digital form, there is no need for labor intensive transcription that qualitative research often involves [1].

Methods of qualitative data collection have traditionally included face to face interviewing, focus groups, semi-structured interviews, observations, and other archived materials [2]. However, increasingly nursing researchers are utilizing the internet to conduct qualitative interviews with some definite benefits to both the researcher and participant. The widespread use of the internet provides a wealth of resources for individuals seeking support and information on their medical conditions, as well as an option for research recruitment [3].

Sampling and Recruitment

The internet is being used to both recruit and interview subjects in qualitative research. The information is received in digital form making it easy to copy and insert into qualitative software to assist in the analysis. The strength of qualitative research comes from using the participant's own words to capture the reality of the experience for them. Collecting data online may make it easier to disclose information than in a face to face interview. Considerations with internet recruitment include sensitivity to the demographic utilizing the internet, and trying to locate participants who best address the research question [3]. Purposive sampling in qualitative research allows for the researcher to select individuals from a variety of ethnicities and genders in order to obtain a more complete description of a phenomenon. It is important to develop an adequate sample which will yield detailed and rich descriptions of the phenomena being studied.

Benefits of Internet Research

There are many benefits to this approach, including the availability of printed transcripts without the need for transcription, easily negotiated recruitment through email and flexible times for interviews without the worries about travel time or cost [4]. The interview may be structured so that participants may enter data at any time of day, allowing people to accommodate work and personal commitments. This asynchronous type of communication also allows for the researcher and participant to take time in forming their responses. Other benefits for both the researcher and participant include better access for dealing with sensitive issues, accessing cultural groups and hidden populations, increased accuracy of data entry and analysis, ability to conduct follow-up studies [1].

Using the Internet for data collection eliminates the barrier of distance, resulting in an increased pool of study participants [5]. Interviews may be conducted online with a set list of guiding questions, and follow-up, in-depth interviews can be accomplished with email. Positive effects from well-run qualitative research on the Internet have

been shown in Beck's study on birth trauma [6]. Women reported feeling empowered by being able to tell their story and feel like someone was listening. There are also some benefits to the researcher in being able to sample hidden populations such as recreational drug users [7].

Limitations of Internet Research

There are however many ethical issues involved in using the Internet for qualitative research. The question of how informed consent can be obtained, and whether a researcher can analyze an existing blog without identifying or notifying members is yet to be resolved. Privacy and confidentiality must be protected, especially for vulnerable population such as teenagers. The potential harm that may be done allowing subjects to reveal highly personal and sensitive information needs to be considered. Whom we get to share the data with, as well as intellectual property rights remains important concerns when using online data.

For nurses there is the issue of whether conversing with participants in other states is practicing nursing across state lines. It is important for the nurse researcher to stay in the researcher role, and not be perceived as providing care to the participant during the study as role confusion may interfere with patient care and the research, especially if a nurse researcher uses his or her own clinical setting to obtain data [8]. This can become a problem if participants are not informed of this fact, or if quotes are taken from existing web pages. The legal issues include protecting private information, malpractice and the nature of the relationship between the researcher and the participant. Issues such as data sharing, along with the potential harm that may be done by allowing subjects to reveal highly personal and sensitive information are also concerns [9].

Privacy and Online Presentation of Self

The Internet is a unique space in that it offers anonymity, and some users may create an identity which is very different from their actual identity. How the participant is defined is often dependent on the researcher's prior assumptions regarding age and gender. For example, male language is often seen as more aggressive in its stance, while female language tends to be more accommodating, and when phonetic spelling is used, one assumes that the writer is younger [4]. Online personas may be different from the real person depending on his or her emotional response to the subjects being discussed, and gathering demographic data on participants may help correct for these assumptions.

Visual cues are important in perception of a subject, and are often

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seen as a type of communication [10]. Detecting whether someone is telling the truth can be difficult whether interviewing someone in person or online. However, in follow-up studies of online research it has been found that, in general, respondents are true to themselves in internet responses as evidenced by the following statement. "Indeed checks made in qualitative market research, where the truthfulness of participants is carefully monitored, also suggests that deliberate deception online is unusual" [1].

There may be a problem of selection bias due to the "volunteer" effect, or the non-representative nature of respondents, when researchers use the internet to recruit participants in qualitative research which may affect the integrity of the research. It could be that the individuals who respond to a request made online tend to respond only if they have been deeply affected by the issue. Although some very rich and interesting data may be collected this way, it may not be representative of the experience for the general population. This may be corrected by interviewing until the data reaches a saturation point and similar stories are being heard over and over again.

Qualitative Interviews

Interviews for qualitative research are generally described as unstructured or semi-structured [3], and may begin as very open, and then revert to a semi-structured style as the specific area of interest is identified. Conducting interviews online using a set of open ended questions with contact over time is a qualitative approach that may be used instead of a series of face to face interviews for in-depth interviewing. This approach to qualitative research may offer more anonymity, perception of control, and ease of use for participants [5].

Online Qualitative Studies in Nursing

Nurses conducting qualitative studies have begun to utilize the Internet to both recruit subjects and gather data. This method has been used successfully by several nurse researchers, and is increasingly recognized as having many benefits in populations where the Internet is a daily part of their lives.

Beck [11] has conducted multiple qualitative studies utilizing the Internet to examine various groups and their experience with birth trauma and post-traumatic stress disorder related to childbirth, as well as women with depression [6]. Although the advantages of being able to observe the participant in face to face interviews have been generally accepted, new methods of contacting subjects online has certain benefits as well. The benefits of participating in online research for women with depression include offering a place to tell their stories and the benefit to the researcher is being able to sample populations that may not ordinarily volunteer for a face to face interview as it allows for more privacy so that participants may fully express their feelings [6].

Beck's [11] study of birth trauma using online discussion with women around the world was an empowering experience for the participants and an example of the possible benefits of Internet dialogue for participants. The participants felt they could finally make sense of the birth trauma process by letting go of the details once they relayed the story of the birth trauma. These themes were similar to the feelings expressed by another group of women in a face-to-face qualitative study including providing a voice, empowerment, healing, and sense of purpose and acknowledgement of their experiences [6].

Eo and colleagues published several Internet-based qualitative studies in 2008 [12,13]. One was on the gender and ethnic differences in cancer patients needing help, in which a month-long online

forum found a theme of marginalization for ethnic minority patients with cancer [12]. Another accessed Internet communities for the recruitment of subjects for an online forum to explore attitudes toward physical activity amongst midlife women [13].

The use of the Internet in qualitative research allows the researcher to create a more level playing field where the participant feels that his or her expertise is valued [3]. There is a positive side as well to eliminating visual cues of appearance; ethnicity and gender in that communication may be less inhibited. There are benefits to the participants including emotional support and acknowledging their expertise in the area being studied. Asynchronous communication, in which the responses to Internet prompts are entered at the participants schedule allows, gives the researcher time to read and reflect on the information they are obtaining and consider how to phrase follow-up prompts.

There are however, ethical and legal concerns with utilizing the Internet for research. If a nurse is seen as giving medical advice to a person out of state that may be construed as practicing across state lines without a license. It is important for the nurse to stay in the researcher role rather than a clinical role while conducting online research. Collecting qualitative data online eliminates the embarrassment some subjects may face in disclosing information in a face-to-face interview, and subjects may be more likely to share intimate details and reflect on answers more carefully [6].

Informed consent requires that participants be aware that they are being studied, and are able to withdraw at any time. The ethical issue of informed consent is important when using data from internet sources. The researcher must provide clear information about the study for consent to be truly informed, and the data must be safeguarded [1,9]. The Health Information Protection and Accountability Act (HIPAA), which became effective in April 2003, specifies guidelines for accessing and sharing protected health information from participants [14].

Trustworthiness in Qualitative Research

For interpretive qualitative studies the researcher must be aware of the factors to be considered in establishing the trustworthiness of findings from qualitative research: credibility, transferability, dependability, and confirmability [15]. Credibility is described by Beck [6,11] as being faithful to the participant's description of the lived experience. Using the participants own words whenever possible helps to establish credibility. Checking in on meaning helps respondents to clarify their thoughts and consider the meaning of their experiences. This cross checking helps to maintain reflexivity by encouraging self-awareness and self-correction [15].

Trustworthiness may be addressed by validation among readers, the construction of texts that can be understood by all, and developing research conclusions that reflect the complexity of the situation [16]. Dependability refers to the stability of the findings over time, and confirmability to the internal coherence of the data in relation to the findings, interpretations, and recommendations [10]. An audit trail can be used to accomplish both dependability and confirmability. In this study copies of the email interviews were pasted into one long word document for each participant. Using the Internet to gather data helped to facilitate forming an audit trail by having an electronic back up of the data gathered and a record of when it came in.

The Internet is more commonly used for qualitative research studies in nursing due to advances in technology and a better understanding of how appropriate this method may be for groups who use email frequently. In qualitative studies utilizing the Internet one may be

concerned about selection bias as a factor. If only subjects who feel very strongly about an issue respond to the study, a complete picture of the lived experience may not be presented. However, the same may be said of sampling for face to face qualitative studies in that those who feel more strongly about an issue might be more likely to respond. It is therefore important to use methods to enhance the trustworthiness of findings such as comparing findings with existing literature, utilizing a second reader and checking back with the participants for clarification on previous communication and considering credibility, transferability, dependability and confirmability [15].

Summary

The Internet presents interesting and useful possibilities for the qualitative researcher in nursing studies, however utilizing the Internet for qualitative research has both benefits and limitations. The Internet provides ready access to subjects, flexible times for data collection, a variety of opinions and experiences, and eliminates transcription costs by having subjects type in their own words. The benefits of online recruitment and data collection also include better access for dealing with sensitive issues, access to more diverse cultural groups and hidden populations, increased accuracy of data entry and analysis, the ability to conduct follow-up studies, and more anonymity for participants and the perception of control [4].

Limitations of using the Internet for qualitative research include ethical and legal concerns which must be considered before designing a study that is conducted online. Privacy and copyright concerns when using a person's own words in a qualitative study are the main problem with use of the internet in health research. It must be clear in the consent that the participant's identity will be shielded, but their own words may be used in the publication of findings.

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