Qualitative Research in Global Health Research

Pranee Liamputtong and Zoe Sanipreeya Rice

Contents

Introduction	2
The Value of Qualitative Research	3
Qualitative Inquiry and Global Health	4
Qualitative Inquiry and Evidence-Based Practice in Global Health	6
Qualitative Research and Its Salient Characteristics	10
Inductive Approach and Theory Generation	10
Methodological Justification: Methodological Framework(s) Is Essential	10
Multiple Ways for Data Collection	12
The Source of Data in Qualitative Research	15
Analytic Strategies and Qualitative Data	16
Trustworthiness and Qualitative Research	17
Qualitative Researchers	18
Empirical Example of How We Conduct a Qualitative Research	19
Conclusion and Future Directions	22
References	23

Abstract

This chapter discusses the contribution of qualitative research and its value in global health. Qualitative research alludes to “a broad approach” that qualitative researchers adopt as a means to examine social circumstances. The inquiry posits that people use “what they see, hear, and feel” to make sense of social experiences. There are many features that differentiate qualitative research from the quantitative approach. Fundamentally, it is interpretive. The meanings and interpretation of the participants are the essence of qualitative inquiry. Qualitative

P. Liamputtong (✉)

School of Health Sciences, Western Sydney University, Penrith, NSW, Australia
e-mail: p.liamputtong@westernsydney.edu.au

Z. S. Rice

Independent Researcher, Camberwell, VIC, Australia
e-mail: rice.zoe@gmail.com

research is valuable in many ways. It offers researchers to hear silenced voices, to work with marginalized and vulnerable people, to address social justice issue, and to contribute to the person-centered healthcare and the design of clinical trials and plays an important role in evidence-based global health. Qualitative researchers are seen as constructivists who attempt to find answers in the real world. Fundamentally, qualitative researchers look for meanings that people have constructed. In this chapter, we discuss the value of qualitative research, qualitative inquiry in global health, qualitative research, and evidence-based practice in global health. The chapter also discusses in great depth some distinctiveness of the qualitative research, in particular the inductive nature of qualitative research, methodological frameworks, purposive sampling technique, saturation concept, qualitative data analysis, and the trustworthiness of a qualitative study. We also provide a concrete example of how a qualitative study was undertaken using details from the research project that we have conducted.

Keywords

Qualitative inquiry · Meaning · Interpretation · Evidence-based practice in health · Methodological framework · Saturation · Trustworthiness · Qualitative researcher

Introduction

Words, especially when they are organized into incidents or stories, have a concrete, vivid, meaningful flavor that often proves far more convincing to a reader – another researcher, a policymaker, or a practitioner – than pages of summarize numbers. (Miles et al. 2015, p. 4)

Qualitative inquiry alludes to “a broad approach” that qualitative researchers adopt as a means to examine social circumstances. The inquiry is based on the position which argues that people use “what they see, hear, and feel” to make sense of their social experiences (Rossman and Rallis 2017, p. 5). Fundamentally, qualitative research contributes to the social inquiry which aims to interpret “the meanings” of people’s actions and behaviors (Bradbury-Jones et al. 2017). It is a type of research that embodies individuals as the “whole person living in dynamic, complex social arrangements” (Rogers 2000, p. 51).

The focus of qualitative is on the social world. The approach offers in-depth explanations for “social actions” (Rossman and Rallis 2017). In the social world, we deal with the subjective experiences of individuals. In different social situations and over time, people’s perceptions of their reality can change (Dew 2007). This makes qualitative research different from researching the natural world, which can be treated as “objects” or “things” (Taylor et al. 2016). In order to capture and understand the perspectives of individuals, qualitative research relies heavily on words or stories that these individuals tell researchers (Patton 2015; Creswell and Poth 2018; Liangputtong 2020). Thus, qualitative research has also been recognized as “the word science” (Liangputtong 2017, 2020).

Qualitative research has been adopted extensively in the social sciences, particularly in anthropology and sociology. We have also witnessed the wider adoption of a qualitative approach in health and medicine. In the past decade or so, qualitative data or interpretive information has been gradually accepted as a crucial component in our understanding of health (Liamputtong 2017, 2019a, b, 2020). In the new public health that recognizes the need to “understand” people, qualitative research is needed since it offers “considerable strength in understanding and interpreting complexities” of people’s behavior and their health issues (Baum 2016, p. 201).

In this chapter, we will discuss the contribution and nature of qualitative research in global health. In particular, we discuss the value of qualitative research, qualitative inquiry in global health, qualitative research, and evidence-based practice in global health. The chapter also discusses in great depth some distinctiveness of the qualitative research, in particular the inductive nature of qualitative research, methodological frameworks, purposive sampling technique, saturation concept, qualitative data analysis, and the trustworthiness of a qualitative study. We also provide a concrete example of how a qualitative study was undertaken using details from the research project that we have conducted.

The Value of Qualitative Research

Qualitative research is adopted because there is a global health problem or issue that needs to be explored (Creswell and Poth 2018). This is particularly when the health problems or issues cannot be easily counted with statistics and when “silenced voices” need to be heard. Qualitative inquiry permits researchers to ask questions, and to find answers, that can be difficult or impossible with the quantitative approach (Hesse-Biber 2017; Liamputtong 2020). For example, What makes many people unable to adhere to medicines? How do Chinese-Australians deal with racist remarks and discrimination of a recent outbreak of the novel coronavirus in Australia? How do Asian Australians feel about the label of a “Chinese virus” on the front page of the Herald Sun newspaper? How does the recent coronavirus impact the everyday life of Asian people in the globe? Why are people in poor nations afraid of going into hospital? Why are breast cancer screening programs underused by women from ethnic minority groups? What contributes to stigma and discrimination of HIV/AIDS despite extensive media and educational campaigns in the country? Why do women with low incomes have many children? How do young refugee people deal with social exclusion? Why do some health programs or interventions do not work? What makes some of these programs/interventions succeed? These are some examples of what qualitative research can find answers for health and social care policy-makers and professionals.

Qualitative research is crucial for research involving marginalized, vulnerable, or hard-to-reach individuals and communities in the globe (Liamputtong 2007, 2010, 2020; Taylor et al. 2016; Flick 2018). This is particularly so when they are “too small to become visible” in quantitative research (Flick 2018, p. 452; Yin 2016). More importantly, due to their marginalized, vulnerable status and distrust in research,

most of these individuals tend to decline to participate in research. The nature of qualitative inquiry will permit qualitative researchers to be able to engage with these individuals.

Qualitative research has increasingly received interest in evidence-based practice in healthcare and the patient-centered care (Olson et al. 2016; Liamputtong 2017). This is mainly because qualitative inquiry can cultivate great understanding of the beliefs, attitudes, and behaviors of the patients and consumers (Liamputtong 2017, 2020; Olson et al. 2016). These in-depth understanding will permit health professionals to better accommodate health interventions to suit the needs of the consumers. In the areas of HIV/AIDS, for example, HIV/AIDS is a global public health concern, and antiretroviral therapy (ART) has saved many lives worldwide. However, non-adherence to ART is still a huge issue in most parts of the world (Liamputtong et al. 2015). Qualitative research can contribute greatly to our understanding the non-adherence of combination antiretroviral therapy (ART). Qualitative inquiry provides a unique means for understanding the complex factors that influence adherence (see Sankar et al. 2006; Liamputtong et al. 2015).

According to Sankar et al. (2006), qualitative inquiry offers persuasive means for exploring adherence to ART. Often, there are many factors that influence adherence among individuals including culture, stigma, medication beliefs, and access. Sankar et al. (2006, p. S54) argue that “a disregard for the social and cultural context of adherence or the imposition of adherence models inconsistent with local values and practices is likely to produce irrelevant or ineffective interventions.” Sankar et al. (2006, p. S65) also contend that thus far qualitative research has been essential in studies concerning ART adherence as it has unfolded “key features and behaviors that could not have been identified using quantitative methods alone.”

Qualitative research can contribute effectively to the design of clinical trials in health care (Toye et al. 2016). Qualitative inquiry helps trial researchers to know their trial participants better. It can also help the researchers to apprehend the successes and failure of trial interventions, which can save money on trials that might not work (Toye et al. 2016). Essentially, the qualitative inquiry can “show the human faces behind the numbers, providing critical context when interpreting statistical outcomes,” as well as make sure that “the numbers can be understood as constituting meaningful changes in the lives of real people” (Patton 2015, p. 179).

Qualitative Inquiry and Global Health

There has been an increasing interest to amalgamate the qualitative approach into traditional biomedical research in global health. In global health, social surveys tend to be used to determine the social determinants of health. However, social surveys often neglect to catch “underlying pathways of pathogenesis” which can only be captured by discerning the immeasurable meanings, perceptions, and beliefs held by local people; in Adams et al.’s words, “a notion of the social that is not assumed” (Adams et al. 2019, p. 1395).

It is argued that qualitative research can help us to understand the meanings and interpretations of health and illness of individuals and communities, why the implementations of some programs and interventions are successfully or fail and how to make them work, how do people seek healthcare, and what are the challenges to healthcare delivery in the local area (Liamputtong 2020).

As presented in earlier chapters in this handbook, there are many emerging global public health issues that impact on the lives of many individuals and communities. For example, the HIV/AIDS epidemic has entered its fourth decade and continues to pose a major public health problem worldwide (Carlson 2019). Although earlier it affected people ranging from intravenous injecting drug users and sex workers to heterosexual men, it has now affected a large number of women around the globe (UNAIDS 2017). Many of these women are also mothers with young infants. According to Carlson (2019), in 2018, there were 37.9 million people worldwide living with HIV/AIDS. In 2018, 770,000 people died of AIDS-related illnesses (Carlson 2019). Among young women in developing countries in particular, the rates of infection are increasing rapidly. The majority of people living with HIV resided in low- and middle-income countries, about 68% living in sub-Saharan Africa. Among this group 20.6 million are locating in East and Southern Africa, and in 2018, there were 800,000 new HIV infections (Carlson 2019).

In 2015, there were 25.6 million people with HIV/AIDS in sub-Saharan Africa (the region most heavily affected by HIV), and women comprised more than half of this number (UNAIDS 2017). Overwhelmingly, the HIV/AIDS pandemic has disproportionately affected women of reproductive age (UNAIDS 2014). However, according to Carlson (2019), young women are particularly at risk. Approximately, among young people aged 15–24, there are 6,200 new infections each week (UNAIDS 2019). In sub-Saharan Africa, four in five new cases of HIV are among girls aged 15–19 years. Young women aged 15–24 years are twofold more likely to be HIV-positive than men.

Children and young people are also affected badly by the HIV/AIDS epidemic. In 2017 about 1.7 million children young people aged 10–24 years were living with HIV/AIDS (UNAIDS 2017). Although the number of children living with HIV has declined in recent time, in 2018, there were still 160,000 new infections among children globally (Carlson 2019). Despite the recent reduction of number of people infected by HIV/AIDS in the globe, it is suggested that the number of individuals living with HIV/AIDS will continue to grow in sub-Saharan Africa (UNAIDS 2014; Carlson 2019). It appears that women and children tend to suffer from the adverse impact of HIV and AIDS more than men (Liamputtong 2013a, 2016).

Qualitative research will allow researchers to understand the meanings and experiences of individual living with HIV/AIDS as well as their families and communities. In the research conducted by Liamputtong, Haritavorn and Kiatying-Angsulee with HIV-positive women in Thailand (2015), they examined adherence of antiretrovirals (ARVs) among these women. They argued that antiretrovirals (ARVs) have been seen as life-saving for HIV-positive people. However, ARVs have a darker side resulting from side effects of the medication. Since 2000, many HIV-positive people in Thailand have received antiretroviral (ARV) treatments, but the

understanding of ARVs and practices of medication-taking among HIV-positive women have not received much attention. In their study, Liamputtong and colleagues discussed local discourses employed by HIV-positive women and health work by these individuals in their attempts to adhere to ARVs restrictions. The local discourse of ARVs was *ya tan rok AIDS*: medications that could resist HIV/AIDS. ARVs provided hope for the women. Although the women were affected by the side effects of ARVs, they continued to take their medication to be able to live longer and perform their duties as mothers and caregivers. They were more concerned about the practice of medication-taking. Understanding why these women were adherent to their ARVs offers insights into the social impact of these ARVs on their lives.

Antiretrovirals (ARVs) have provided hope for HIV-positive people. ARVs act as part of “people’s ‘quests’ to regain control, create order, reduce dependence on others, and to feel ‘normal’ again” (Russell and Seeley 2010, p. 376). However, it is crucial to pay attention to how individuals experience and deal with the challenges associated with ARVs in their everyday life within a local context. Liamputtong et al. contend that a good understanding of the local discourse, motivation, and concerns about ARVs may assist in the expansion and sustainability of ARV therapy within the sociocultural context of the locality. Their research was based on qualitative research. The findings cannot necessarily be generalized across Thai population. However, their findings contributed to theoretical understanding about the meanings of ARVs and medication-taking practices from one low-income location and had implications for health policy relating to the provision of ARVs. As Thailand continues to expand its ARV programs, it is essential to examine factors that are associated with medication-taking practices and ARV adherence so that future implementation attempts can succeed. Additionally, a better understanding of issues that are meaningful to HIV-positive women may assist healthcare providers in their attempt to provide appropriate ARV services to them and allow policy-makers to make policy that meets the needs of women living with HIV/AIDS in Thailand and elsewhere. Their findings also contribute to future research regarding ARV therapy and women living with HIV/AIDS in different sociocultural contexts.

Qualitative Inquiry and Evidence-Based Practice in Global Health

Attempts have been made in the last few decades to provide more evidence-based healthcare to individuals and communities in the globe. Thus, we have witnessed a large number of research projects carried out in the health area, and often this involves the use of quantitative methodology including experimental design, epidemiology, and systematic reviews of interventions. But will this research reflect the realities of people? Particularly, what does this mean to people who do not have opportunities to contribute in research that can be used as “evidence” in healthcare? Evidence-based practice in global health and the need for qualitative inquiry is discussed in this section.

As in healthcare in general, evidence-based practice has become an important practice in global health (Olson et al. 2016; Fan and Uretsky 2017; Liamputtong

2017, 2019a). The turn to evidence-based practice and its beliefs in “numbers” in global health has surfaced as a result of the emergence of evidence-based medicine (EBM). In particular, the trust in randomized controlled trials (RCTs) and the “production of scientifically valid results as the gold standard for evidence of efficacy” (Fan and Uretsky 2017, p. 158) have intruded into the domain of global health as well.

Evidence-based global health has been referred to as “an approach that promised to create standards across all phases of the ‘production, distribution, and consumption of evidence’ grounded in ‘legitimate’ forms of statistical results” (Fan and Uretsky 2017, p. 158). Evidence-based global health is perceived as a decision-making process that health practitioners adopt to identify and use the best intervention strategy to address the health issue for specific individuals and groups within their local context.

Evidence-based global health requires the use of “scientific research” for developing effective practices (Hess et al. 2014; Liamputtong 2017, 2019a). Thus, similar to evidence-based medicine, evidence-based global health is based on a hierarchy system, where quantitative methods (objective data) and systematic review are located at the top level and qualitative evidence (subjective data) is at the lower end. The hierarchy of evidence-based global health suggests that “subjective perceptions” are subordinated to “objective quantification” and “description” is less important than “inferential testing” (Giacomini 2001, p. 4). Within this model, the contribution to evidence-based practice of findings from qualitative research is undervalued and discounted (Olson et al. 2016; Liamputtong 2017, 2019a). According to Fan and Uretsky (2017, p. 207), within the world of the evidence-based practice, measurements are given priority over people’s lived experiences, thus “producing programs fit for a ‘bare life’ that strips people and communities of the individual identities that cloud the population-level measures that inform good global health interventions.”

For global health practitioners, evidence is generated from research data (Brownson et al. 2011; Hess et al. 2014; Liamputtong 2017, 2019a). However, this data includes not only quantitative data but also qualitative data, which can be used in decision-making about health programs, interventions, and policies (White et al. 2014; Olson et al. 2016; Liamputtong 2017, 2019a). Although evidence-based global health might have been claimed to stipulate clear responses to messy and difficult problems and would provide “certainty” in the uncertain world we are living in, dealing with people also needs a passion for humanity,” as well as “a belief in human potential” (McLaughlin 2012, p. 97). This is what data from qualitative inquiry can indeed offer (Patton 2015; Liamputtong 2017, 2019a). In the words of McLaughlin (2012, p. 101), “not everything that is valuable is measurable and not everything that is measured is of value.”

Increasingly, global health programs have reacted to criticism of the “top-down approaches” used in international health by emphasizing the necessity of “local ownership” and “partnership with key stakeholders” (Brown 2015). Partnership with local players can be done through “collaborative mode of engagement” (Fan

and Uretsky 2017, p. 207). This is what qualitative research can significantly contribute.

It is argued that the hierarchical model of evidence is only one way of organizing different types of evidence. It can be very useful for some global health practices (e.g., in therapeutic and medical science). It is important for global health researchers and practitioners to appreciate this, so that they can evaluate the quality of evidence that can be found with respect to a specific global health issue in a particular context. Global health practitioners need to consider the relevance and feasibility of evidence and whether the evidence accords with the values and preferences of the clients (White et al. 2014). What is required in global health is “the best evidence available not the best evidence possible” (Brownson et al. 2011, p. 6). And this is what this chapter advocates – that we need to consider different types of evidence and that this evidence can be derived from the findings of different types of research.

All too often, little is known about particular health problems of some population groups or about intervention options that are not empirically based (Olson et al. 2016; Fan and Uretsky 2017; Becker et al. 2019). Although there is research evidence that global health practitioners may find in existing literature, there are still many health issues that remain unknown to us (Liamputtong 2017, 2019a). Additionally, efficacy research on health promotion and prevention is not readily available in global health. Therefore, it is often difficult to find a systematic review of global health interventions.

More importantly, global health practitioners may need evidence other than that which relates to the efficacy of interventions to inform their practice (McLaughlin 2012; Olson et al. 2016). Some health topics or issues in global health (such as the health impact of domestic violence or the effects of smoking cessation on lung cancer mortality) are not appropriate for an intervention. Not all interventions can be done through randomized controlled trials (Hess et al. 2014). For example, interventions in psychological issues may be difficult to “randomize (because they must be tailored to individuals), and blind (because psychosocial treatments may require explicit awareness, engagement, and commitment from patients for efficacy)” (Kirmayer 2012, p. 250).

Evidence-based global health has also been criticized for its limited application for diverse cultural groups (Kirmayer 2012). Currently, evidence-based global health does not apply to many of the health issues of certain population groups (e.g., certain ethnic minorities and indigenous groups, recent immigrants and refugees, transgender individuals, gay men and lesbians, people with disabilities, children, older people, rural people, and people with uncommon or particularly challenging health problems) (Fan and Uretsky 2017; Liamputtong 2017, 2019a).

Evidence derived from the qualitative approach can help global health practitioners to understand the issue and to use the findings in their practice. Qualitative research provides evidence that may not be obtainable from quantitative research or from a systematic review of quantitative research (Olson et al. 2016; Liamputtong 2017; Becker et al. 2019). Within the dominance of evidence-based global health, qualitative research can be a vehicle for practitioners to bring the consumers back to healthcare. Qualitative research allows global health practitioners to gain a better

understanding about newly emerging as well as chronic illnesses. Qualitative research provides insight into barriers and facilitating factors that can influence the development and implementation of effective global health programs, interventions, and policies (White et al. 2014). Numerous researchers have argued that findings of qualitative research can enhance evidence-based practice (White et al. 2014; Olson et al. 2016; Becker et al. 2019).

In their recent research, Becker et al. (2019) contend that around the globe, there has been an increased attention on the improvement of access to evidence-based mental healthcare. This has particularly been in areas where there is also a high burden of HIV among the nations' population. Due to the experience of marginalization that people living with HIV has had, qualitative research that can help to better understand the perceptions of and reactions to mental illness within the local areas are crucial to successfully increase evidence-based mental healthcare and integrate such care with HIV care. Stigma attached to mental illness and HIV/AIDS occur in all societies but the meanings and context of stigma differ in different societies (Liamputtong 2013b). To successfully address stigma, portrayal of the culture-specific meanings of stigma is essential. Becker et al. (2019, p. 1567) suggest that "as stigma is embedded in cultural beliefs, characterization of local conceptual models of mental illness can provide a rich basis for understanding fundamental roots of stigma processes."

Below, we provide an example of the use of qualitative research in an evidence-based practice in health promotion program.

The "Body and Soul" Program in the Samoan Community in Hawaii

Churches have a great capacity to promote overall health and to reach marginalized individuals and communities to reduce their health inequalities. Churches, for Samoan migrants living in the USA, are established, trusted, and well-attended organizations which have an ability to address the well-being of their community. In this study, Cassell et al. (2014) qualitatively examined the adaption of "Body and Soul" (a proven faith-based, health promotion program) for use in Hawaii's Samoan churches.

The findings from their research showed the value of qualitative research methods to inform the adaptation of evidence-based health promotion programs for communities experiencing health inequalities. Additionally, this research pinpointed possible intervention strategies that could work with other migrants from distinct Pacific Island jurisdictions who experience similar poor health outcomes to Samoan migrants in the USA.

According to Cassell and colleagues, qualitative interviews with Samoan community members helped to reveal "underlying socioecological factors" that significantly contribute to obesogenic trends in Samoans living in Hawaii. These factors included "changes in the vocational structure of Samoan society, combined with influences because of migration and acculturation into Western

(continued)

societies, modified cultural norms surrounding the adoption of Westernised diets, and the prominence of Western foods within cultural practices” (p. 1668). The authors suggest that the use of qualitative approach was an “efficient approach” that assisted in the implementations of health promotion interventions to suit a particular group of people (Cassell et al. 2014).

Qualitative Research and Its Salient Characteristics

In the following sections, we will discuss some salient characteristics of the qualitative inquiry in great details.

Inductive Approach and Theory Generation

Qualitative research is inductive. Instead of “theory testing” as practiced in quantitative research, the qualitative approach adopts “a logic of ‘theory generation’” (Hesse-Biber 2017, p. 11; Wilson 2019). Inductive reasoning allows researchers to adopt particular understandings and develop a general conceptual understanding of the issue they examine (Taylor et al. 2016; Rossman and Rallis 2017).

Typically, qualitative research projects start with the collection of particular data and follow with the analysis that will allow the researchers to form a more general understanding of the issue they investigate (Berger and Lorenz 2016; Merriam and Tisdell 2016; Hesse-Biber 2017). Thus, guiding questions that they use to collect their data are open-ended that will allow multiple meanings to surface. Usually, the questions that researchers ask in qualitative research commences with words like “what,” “why,” or “how,” rather than questions about “how much” or “how many.” For instance, What prejudice and discrimination that transwomen of color experience in their everyday life? Why do many working mothers experience struggles to continue breastfeeding? and How do women living with breast cancer cope with their health condition during chemotherapy treatment?

Nevertheless, despite being inductive, often qualitative researchers commence their study with some conceptual frameworks that shape their decisions in undertaking their research. However, this framework is adjustable. It can change as the study is being conducted (Rossman and Rallis 2017).

Methodological Justification: Methodological Framework(s) Is Essential

Qualitative research tends to be situated within some methodological frameworks. Methodology determines a method for researchers to produce data for analysis

(Taylor et al. 2016; Hesse-Biber 2017; Silverman 2017; Gaudet and Robert 2018). Avis (2003, p. 1003) contends that qualitative researchers need to provide their “methodological justification” by discussing the reason why they select a particular method in their research. The methods that researchers select and what they expect to get out of those methods is strongly formed by their “methodological position” (Dew 2007, p. 433).

A methodological framework provides “ways of seeing” in the conduct of qualitative research. Qualitative researchers must defend the adoption of their methods based on an appropriate methodological framework (Avis 2003; Taylor et al. 2016). It is insufficient to say that we will use an in-depth interview in our research to examine the experience of living with chronic illness among our research participants. We must provide some framework to justify our method. In this case, we may say that we are interested in the lived experience of participants and hence phenomenology will be our methodological framework, and with this type of research, an in-depth interview is appropriate because it will allow participants to tell their stories in great depth (Liamputtong 2020).

There are many methodological frameworks and research approaches practiced by qualitative researchers (Bradbury-Jones et al. 2017; Gaudet and Robert 2018). These include ethnography, symbolic interactionism, phenomenology, feminism, postmodernism, ethnomethodology, empathy, participatory action research, grounded theory, case study, and Indigenist methodology.

According to Hesse-Biber (2017, p.10), “the diversity of the methods with which qualitative researchers work is one of the distinguishing features of the qualitative landscape, which makes for a vast range of possible research topics and questions” (see also Bradbury-Jones et al. 2017). Bradbury-Jones et al. (2017, p. 628) suggest that the diversity of approaches that are available to qualitative researchers provides “a significant benefit” as it “provides a rich pool of methodological and technical options” that researchers can employ in their research.

In Liamputtong’s own writing (Liamputtong 2020), she has advocated several methodological frameworks that qualitative researchers can draw on. These include ethnography, phenomenology, symbolic interactionism, hermeneutics, feminism, postmodernism, and decolonizing methodology. Taylor et al. (2016) recommend several frameworks. These include phenomenology, symbolic interactionism, ethnomethodology, feminism, institutional ethnography, postmodernism, narrative analysis, and multi-sited, global research. In her recent book, Hesse-Biber (2017) suggests different methodological lenses including symbolic interactionism, dramaturgy, phenomenology, ethnomethodology, postmodernism, feminisms, critical race theory, and queer theory. Gaudet and Robert (2018) propose five frameworks: phenomenology, grounded theory, discourse analysis, narrative analysis, and ethnography.

Different methodological frameworks offer different perspectives in the conduct of qualitative research. Each methodological framework may also be suitable for some research questions than others. Qualitative researchers must carefully consider which methodological framework will be more appropriate for their research project.

Multiple Ways for Data Collection

Qualitative research methods have been coined as “data enhancers” as they disclose “empirical reality” which cannot be revealed by numbers (Berger and Lorenz 2016). All qualitative research methods attempt to obtain “detailed accounts,” what Clifford Geertz (1973) refers to as “thick description” of a small number of people (Berger and Lorenz 2016).

Traditionally, there are a number of methods that qualitative researchers use to collect empirical materials in their research. These include in-depth interviewing method, focus group, life or oral history, and unobtrusive methods. Among these methods, the in-depth interviewing method is the most commonly known technique and is widely employed by qualitative researchers (Brinkmann and Kvale 2015; Serry and Liamputtong 2017; Nathan et al. 2019). As we now reside in “an interview society” (Fontana and Frey 2000, p. 646), interviews have become essential for individuals to make sense of people’s lives (Brinkmann and Kvale 2015).

In-depth interviewing method refers to “face-to-face encounter between the researcher and informants directed toward understanding informants’ perspectives on their lives, experiences, or situations as expressed in their own words” (Taylor et al. 2016, p. 102). Interviewing is a way of collecting empirical data about the social world of individuals by inviting them to talk about their lives in great depth. In an interview conversation, the researcher asks questions and then listens to what individuals say about their lived experiences such as their dreams, fears, and hopes. The researcher will then hear about their perspectives in their own words and learn about their family and social life and work (Brinkmann and Kvale 2015). Rubin and Rubin (2012, p. 3) say that in-depth interviewing “helps reconstruct events the researchers have never experienced.” It is particularly valuable when researchers wish to learn about the life of a wide range of individuals, “from illegal border crossing to becoming a paid assassin.”

There are other qualitative approaches that embody some forms of qualitative method. However, they are often referred to as the method (although some may refer them to as research traditions). These include the ethnographic method, narrative research, grounded theory, memory work, autoethnography, case study, and participatory action research (PAR). It is not feasible to discuss all of these methods in this chapter. However, participatory action research has played a crucial role for global health researchers to work with local people in the world (Higginbottom and Liamputtong 2015; Liamputtong 2020). Here, we provide an example of the contribution of PAR in a global health research.

Rebuilding People-Centered Maternal Health Services in Post-Ebola Liberia

Jones et al. (2018) used PAR to work with local people to build maternal health services in post-Ebola Liberia. In Liberia, during the Ebola crisis between March 2014 and January 2016, Redemption Hospital was a holding facility for

(continued)

suspected Ebola cases and 12 hospital staff lost their lives to Ebola. This prompted violent hostility from the community in the surrounding New Kru Town, in the capital city of Monrovia. Due to this, inpatient services, including maternity care, were closed down for 6 months. When the hospital was reopened in early 2015, the utilization of the services was low, particularly birthing services. The main issue was that the community did not have trust in health workers.

Due to the lack of communication and trust between community members and the formal health system, participatory action research (PAR) was perceived to be a potential methodological approach in this study. The PAR methodology seeks to generate processes which challenge dynamics of power between individuals and groups as well as to cultivate relationships between stakeholders and service providers. PAR was initiated in July 2015 to develop communication between stakeholder groups and to determine impacts of the epidemic and identified shared actions to reform the system. The PAR involved pregnant women, community-based trained traditional midwives (TTMs), and traditional birth attendants (TBAs), community leaders, and health workers.

The PAR process involves two stages. Stage 1 included 2-day meetings which were held with the three subgroups separately. The meetings focused on the current experience of maternal care services, how the Ebola epidemic impacted them and the important issues which needed to be addressed to improve services. The findings of the meetings were discussed with their own wider group. Feedback was then brought to a stage 2 meeting. During the stage 1 meetings, a number of tools and activities were utilized in order to allow participation and stimulate discussions among the stakeholders. These included picture codes and pile sorting, social map, Venn diagram, EVD (Ebola virus disease) timeline, ranking and scoring/pairwise ranking, and market place.

Stage 2 meetings involved 1-day meetings which included all groups to identify actions that addressed problems and improved experience of services. The group also established a coordination committee and progress markers for the action plan. The identified actions were then implemented within the 3-month period. They were reviewed by the coordination committee against progress markers as well as in a wider review meeting in late 2015 to support to learning action.

The findings of this PAR project suggested that Ebola worsened community-hospital relations and the preexisting weaknesses in maternal services. Findings suggest that the PAR process established evidence and improved communication as well as interaction between the community and health workers.

(continued)

In their conclusion, the authors contended that: “The PAR methodology uncovered significant issues, allowed community members and health workers to understand each other’s experiences and needs, created meaningful links, and strengthened communication between a hospital and its surrounding community.” They also suggested that “PAR methods can be used effectively in low-resource settings, but also in post-crisis contexts, where health systems need to be rebuilt in a way that makes them responsive to current needs and resilient to future crises” (p. 17).

Within the present climate of our fractured world, it is inevitable that global health researchers will engage with the vulnerable, disadvantaged, and marginalized groups as it is likely that these population groups will be confronted with more problems with their health and well-being. There are many situations where no conventional qualitative methods will work and can be alienating for some individuals. It is essential that global health researchers adopt unconventional alternative approaches. Indeed, many researchers have increasingly realized the value of more creative inquiries in working with marginalized groups. Research that involves children, for example, traditional research methods such as in-depth interviews or focus groups may be problematic. Creative methods that treat children as research participants instead of research objects will allow children to play an important role in the research. These creative methods also allow researchers to gain a deeper insight into the understanding and experiences of children.

Increasingly too, there have been many global health researchers who believe in the social justice value and attempt to change the social conditions of people and communities around the globe. This is precisely what Denzin (2010) has encouraged researchers who are situated within the “moral and methodological community” to do. This has resulted in the development of and creative qualitative approaches in many parts of the globe and they are also in expansion.

In the last few decades, researchers in the health sciences have started to embrace the use of visual research so that their understanding of the human condition can be enhanced. There are a wide variety of visual forms that are available to researchers. Each of these visual forms can result in different ways of knowing. Thus far, we have witnessed visual forms such as photographs, drawings, cartoons, graffiti, maps, diagrams, films, video, signs, and symbols, which have been adopted in research in the health sciences. Most often, however, health researchers use visual methods together with some form of interviewing.

Images speak louder than words (Harper 2002, 2012) and there is a saying that “a picture is worth a thousand words.” A picture can be captured instantly at a glance, but those thousand words would need time to read or to listen to. The use of visual images as a data collection tools in research can assist health social science researchers in many ways. Weber (2008) suggests a few. Images can assist us to capture knowledge that is hidden, elusive, or hard-to-put-into-words which would be

ignored or remain hidden without the use of visual forms. Photographs, for example, can greatly invoke “information, affect and reflection” (Rose 2007, p. 238) that written texts may not be able to do. Similarly, drawing and painting can grasp emotions which are not easily produced in words alone. Images can assist researchers to pay attention to things in different ways. Ordinary things can become extraordinary with the use of images. This can make us embrace new ways of doing things. Often, images can invoke new research questions and inspire the research design (Weber 2008).

Teti et al. (2019) tell us that in health research and practice, visual methods are common tools. Health researchers have appreciated the values of photography as a means “to understand health issues from the perspectives of those living with health challenges, inform health interventions, and engage community members in identifying and solving health problems.” Teti and colleagues write about the application of the photovoice method to HIV/AIDS and autism spectrum disorder research and practice. Within community-based participatory action research (PAR), the method of photovoice has emerged as an innovative means of working with marginalized people and in cross-cultural research (Liamputtong 2007, 2010, Liamputtong 2020). Photovoice method allows individuals to record and reflect the concerns and needs of their community via taking photographs. It also promotes critical discussion about important issues through the dialogue about photographs they have taken. Their concerns may reach policy-makers through public forums and the display of their photographs. By using a camera to record their concerns and needs, it permits individuals who rarely have contact with those who make decisions over their lives, to make their voices heard.

The Source of Data in Qualitative Research

Qualitative research is concerned with the in-depth understanding of the issue or issues under examination; it thus relies heavily on individuals who are able to provide information-rich accounts of their experiences (Patton 2015; Yin 2016; Creswell and Poth 2018). This is referred to as the purposive sampling strategy (Houser 2015; Patton 2015; Bryman 2016; Yin 2016; Hesse-Biber 2017; Creswell and Poth 2018; Liamputtong 2020). Purposive sampling is a deliberate selection of specific individuals, events, or settings because of the crucial information they can provide, which cannot be obtained as adequately through other channels (Patton 2015; White 2015; Yin 2016; Creswell and Poth 2018). For example, in research that is concerned with how women with breast cancer deal with the side effects of chemotherapy treatment, purposive sampling will require the researcher to find women who have experienced the side effects of chemotherapy, instead of randomly selecting any cancer patients from an oncologist’s patient list. The purposive sample is also referred to as a “judgment sample” (Hesse-Biber 2017, p. 62). Research participants are selected to be included in a study due to their particular characteristics as determined by the particular objective of the research (Liamputtong 2020).

The powers of purposive sampling techniques, Patton (2015, p. 264, original emphasis) suggests, “lie in selecting *information-rich cases* for study in depth.” These information-rich cases are individuals or events or settings from which researchers can learn extensively about issues that they wish to examine (Houser 2015; Creswell and Poth 2018; Liangputtong 2020).

The focus of decisions about sample size in qualitative research is on ‘flexibility and depth’. A fundamental concern of qualitative research is quality, not quantity. A qualitative research usually involves a small number of individuals. Qualitative research aims to examine the ‘meanings’ or a ‘process’ that individuals give to their own social situations. It does not require a generalization of the findings as in positivist science (Houser 2015; Hesse-Biber 2017; Liangputtong 2020). Qualitative research trades ‘breadth for depth’ (Hesse-Biber 2017, p. 63). The important question to ask is whether the sample provides data that will allow the research questions or aims to be thoroughly addressed (Houser 2015; Liangputtong 2020).

In qualitative research, there is no set formula that can be adopted to determine the sample size rigidly (Liangputtong 2020). Often, at the commencement of the research project, the number of participants to be recruited is not definitely known. However, data saturation, a concept associated with grounded theory, tends to be adopted by qualitative researchers to determine the number of research participants. Saturation is considered to occur when little or no new data is being generated (White 2015; Liangputtong 2020). O’Reilly and Parker (2012, p. 192) suggest that saturation is reached at “the point at which there are fewer surprises and there are no more emergent patterns in the data.” The sample is adequate when “the emerging themes have been efficiently and effectively saturated with optimal quality data” (Carpenter and Suto 2008, p. 152) and when “sufficient data to account for all aspects of the phenomenon have been obtained” (Morse et al. 2002, p. 12).

Saturation is usually established during the data collection process (Houser 2015; Liangputtong 2020). This means that in most qualitative research, data collection and data analysis tend to occur concurrently. This is the only way that researchers can know if they have reached saturation or not (Liangputtong and Serry 2017; Liangputtong 2020). Despite its usefulness, saturation has received some criticism, and many qualitative researchers have also questioned its use (see Morse 2015a). There are also different levels and types of saturation.

Analytic Strategies and Qualitative Data

Qualitative inquiry relies heavily on words and stories; thus, how qualitative researchers make sense of their data also reflect this. Data analysis and interpretation of data are an exciting process that qualitative researchers bring meaning to the piles of data that they have gathered (Rossman and Rallis 2017, p. 227). It is a complex process and involves the following: “Organizing the data, familiarizing with the data, identifying categories, coding the data, generating themes, interpreting, and searching for alternative understanding” (Rossman and Rallis 2017, p. 237).

There are several analytic strategies that qualitative researchers analyze and organize their data. These include content analysis, thematic analysis, discourse analysis, narrative analysis, and semiotic analysis method (Liamputtong 2020). Thematic analysis method seems to be the most commonly adopted in qualitative research. It is seen as “a foundational method for qualitative analysis” (Braun and Clarke 2006, p. 78). Thematic analysis is “a method for identifying, analysing and reporting patterns (themes) within the data” (Braun and Clarke 2006, p. 79).

Nowadays, there are some software programs, such as NVivo, ATLAS.ti, and MAXQDA, that can assist qualitative researchers with the analysis. This is referred to as “computer-assisted qualitative data analysis” (CAQDAS) (Yin 2016; Serry and Liamputtong 2017; Bazeley 2019). However, the software programs do not analyze the data per se; they help to manage the qualitative data more efficiently (Creswell and Poth 2018). The researchers still have to perform “all the analytic thinking” (Yin 2016, p. 188). Another word, “the real analytical work” still “takes place in your head” (Patton 2015, p. 531).

Qualitative data analysis is a time-consuming process. However, it is also “creative and fascinating.” Sufficient time needs to be dedicated to data analysis in qualitative research. Taylor et al. (2016) contend that data analysis is the most difficult thing for qualitative researchers to teach or communicate to others. Most novice qualitative researchers tend to “get stuck” when they start to analyze their data. Taylor et al. (2016, p. 168) contend that this is because qualitative analysis “is not fundamentally a mechanical or technical process; it is a process of inductive reasoning, thinking and theorizing.” For most qualitative researchers, their ability to analyze their data arises out of their experience. The best way that researchers can learn more about inductive analysis is to work with “a mentor who helps them learn to see patterns or themes in data by pointing these out” and by reading qualitative papers and studies to see how others have come up with their data. This is our recommendation as well.

Trustworthiness and Qualitative Research

Qualitative research has criteria that can be used to evaluate the quality of the research. Within the qualitative approach, the term “rigor” or “trustworthiness,” which refers to the quality of qualitative inquiry, is used (Morse 2015b; Bryman 2016; Yin 2016; Rossman and Rallis 2017; Liamputtong 2020). A trustworthy research is a research that researchers have “drawn the correct conclusions about the meaning of an event or phenomenon” (Houser 2015, p. 146). In health research and practice in particular, trustworthiness means that “the findings must be authentic enough to allow practitioners to act upon them with confidence” (Raines 2011, p. 497).

Lincoln and Guba (1989) propose four criteria that many qualitative researchers have adopted to evaluate the trustworthiness of their qualitative research. The criteria were invented in responses to the influence of quantitative research that relies heavily on the issues of validity and reliability (Morse 2015b, 2018). These criteria include credibility, dependability, confirmability, and transferability.

Credibility relates to the question “how believable are the findings?” (Bryman 2016, p. 44). A credible study, according to Yin (2016, p. 85), refers to a study that “provides assurance that you have properly collected and interpreted the data, so the findings and conclusions accurately reflect and represent the world that was studied.” Dependability focuses on “the consistency or congruency of the results” (Raines 2011, p. 456). It asks whether the research findings fit the data that have been collected (Carpenter and Suto 2008). Confirmability attempts to show that the findings and the interpretations of the findings do not derive from the imagination of the researchers but are clearly linked to the data.

Transferability (also referred to as applicability) begs the question of “to what degree can the study findings be *generalized* or applied to other individuals or groups, contexts, or settings?” or “do the findings apply to other contexts?” (Bryman 2016, p. 44). It attempts to establish the “generalizability of inquiry” (Tobin and Begley 2004, p. 392). Transferability in qualitative research emphasizes the theoretical or analytical generalizability of research findings. Transferability suggests that the theoretical knowledge that researchers obtained from qualitative research can be applied to other similar individuals, groups, or settings (Carpenter and Suto 2008). This is particularly so for research employing the ethnographic method and grounded theory research.

There are several strategies that qualitative researchers employ to ensure the rigor of their study. Often, these include prolonged engagement, persistent observation, thick description, peer review, member checking, external audits, triangulation, and reflexivity (Morse 2015b; Rossman and Rallis 2017; Creswell and Poth 2018; Liangputtong 2020). Each of these strategies may not be suitable for all types of qualitative research and some strategies may create difficulties for some qualitative projects than others (see Morse 2015b). Qualitative researchers need to take into account the type of qualitative method they use and social context on which their research is situated.

Qualitative Researchers

Basically, qualitative researchers look for meanings that people have constructed (Taylor et al. 2016; Hesse-Biber 2017). They are interested in learning about “how people make sense of their world and the experiences they have in the world” (Merriam and Tisdell 2016, p. 15). Qualitative researchers can be perceived as “constructivists” who “seek answers to their questions in the real world” (Rossman and Rallis 2017, p. 4) and then “interpret what they see, hear, and read in the worlds around them” (p. 5).

Qualitative researchers are individuals who commit themselves to several issues. They:

- See the social world holistically
- Have a strong commitment to examining an issue from the participant’s perspective

- Interact extensively with the participants
- Employ multiple reasoning
- Are sensitive to personal biography
- Are reflexive in the conduct and interpretation of research

Qualitative research is personal and sensitized to personal biography as the researcher acts as “the instrument of inquiry” (Patton 2015, p. 3; Rossman and Rallis 2017, p. 9). What brings then to their research is an important thing for most qualitative researchers. Thus, qualitative researchers tend to acknowledge who they are and how their personal biography frame their research. They value their “unique perspective as a source of understanding rather than something to be cleansed from the study” (Rossman and Rallis 2017, p. 9). Qualitative research is an exquisite sensitivity to personal biography.

Empirical Example of How We Conduct a Qualitative Research

Breast cancer is the most commonly occurring cancer among women both in the developed and less developed nations (World Health Organization 2020). In 2011, worldwide, over 508,000 women died due to breast cancer. In 2018, there were more than 2 million new cases of breast cancer. The incidence of breast cancer has increased in developing countries, particularly in the Asian region (World Health Organization 2011). Although breast cancer is seen as a disease of the developed world, about 50% of breast cancer cases and 58% of deaths occur in under developed nation. Women with breast cancer are not only affected physically, but also psychologically. Breast cancer is an “emotionally debilitating disease” that affects women of all ages (Banning et al. 2010, p. 307; Liamputtong and Suwankong 2015). Research has shown that women who are diagnosed with breast cancer suffer from many emotional debilities, including anxiety, fear of dying, depression, and negative and suicidal thoughts (Liamputtong and Suwankong 2015).

Breast cancer is one of the leading causes of deaths in Thai women. Breast cancer was the second leading form of cancer in women, following cervical cancer. Each year, approximately 192,000 women are diagnosed with breast cancer and the incidence of breast cancer has increased significantly in the last decade, particularly among older women. Breast cancer has also become a common health issue among Thai women in rural areas. There appears to have been little research that addresses therapeutic landscapes and the lived experience of living with breast cancer among Thai women living in Southern Thailand. In their research, Liamputtong and Suwankong (2015) attempted to address the gap in literature in their paper. The authors were interested in rural areas as most rural people tend to rely on traditional healthcare practices in dealing with their health issues. These factors would allow them to examine therapeutic landscapes that their participants adopted for dealing with their breast cancer.

Qualitative research has shown that breast cancer is an “emotionally debilitating disease” that affects the lives of women of all ages. Liamputtong and Suwankong

adopted a feminist framework as their research methodology and employed qualitative and innovative methods in their study. The therapeutic landscapes of healing involved multiple levels of landscape changes including body, home, neighborhood, healthcare, and cultural contexts. Their findings offer a particular insight into the role of emotions and cultural beliefs and practices in forming therapeutic landscapes among women living with breast cancer in Thailand. It is crucial that healthcare providers understand the emotional experiences of women with breast cancer and their particular cultural needs for emotional healing landscapes. Their findings could be used as evidence for developing culturally appropriate therapeutic strategies and interventions for women with breast cancer in Thailand and elsewhere.

Qualitative Research with Women Living with Breast Cancer in Southern Thailand

Liamputtong and Suwankhong (2015) adopted a qualitative approach for the research as it allowed them to learn about individuals' lives, stories, and behavior. A qualitative approach is appropriate because qualitative researchers accept that, in order to understand people's behavior, we must attempt to understand the meanings and interpretations that people give to their behavior. Qualitative inquiry is most appropriate when the researcher has little knowledge of the participants and their worldviews and when the researcher wishes to work with marginalized and vulnerable individuals.

In this study, Liamputtong and Suwankhong situated their research within the feminist framework. Within feminist methodology, women and their concerns are the focus of investigation. An intention of feminist research is to undertake research that is beneficial for women. The ultimate aim is to capture women's lived experiences in a respectful manner that legitimates women's voices as sources of knowledge. Although some feminist researchers employ positivist methodology, often feminist research calls for qualitative inquiry that is less structured and more flexible than that of the positivist paradigms. Qualitative inquiry allows researchers to examine in depth the experiences of people by giving them a voice and allowing them to express themselves.

The participants of this study included 20 Thai women who had been diagnosed with breast cancer in Southern Thailand. The purposive sampling method was used to select key informants who met the study's criteria and could provide rich data relevant to the aim of their study (to examine the lived experiences of living with breast cancer among Thai women). The number of participants was determined by the theoretical sampling technique, which stops recruiting when little new data emerges.

Recruitment was firstly carried out through their personal network as members of the Thai community in Southern Thailand. Liamputtong and Suwankhong initially contacted healthcare providers at the primary health

(continued)

center, where many women sought care after being hospitalized. Snowball sampling technique was also adopted to expand the number of participants. Snowball sampling requires that researchers initially select a few research participants and ask them for a recommendation of others who might meet the research criteria and who might be interested in participating in the research. Snowball sampling is employed extensively in sensitive research with groups whose members are difficult to locate or are unlikely to be willing to participate without referral from others in their own network.

Liamputtong and Suwankhong contacted the women via telephone to schedule convenient interview times. All interviews were conducted in Thai language to retain the subtleties and hidden meanings of the participants' statements. Both authors, who are Thai, conducted the interviews together at the beginning of data collection to ensure consistency. However, most interviews were conducted by Suwankhong. They used an interview guide for each woman. This interview guide comprised several open-ended questions which allowed the women to express their experiences in detail and included relevant prompts. Some of the main questions included:

- What does breast cancer mean to you?
- Please tell us about your own experience of breast cancer.
- What did you do once you were told that you had breast cancer?
- How did you deal with breast cancer in your everyday life?
- Did you receive any support from you family or other people? Please tell us more about this.

All interviews occurred at each woman's home and at a time that was convenient for each one. The interview's duration was approximately 1.5 hours and was audio-taped for verbatim transcription and data analysis.

Situated within the feminist framework, Liamputtong and Suwankhong also employed an innovative method involving drawing. Drawing helps people to see their world whether it is a simple or complex matter. The drawing method constitutes a form of visual imagery and is a contemporary method used to collect information from vulnerable people, and for sensitive topics, drawing methodology provides "a rich and insightful research method to explore how people make sense of their world," and hence, it is suitable for conducting research with vulnerable people (including women living with breast cancer and women from ethnic minority groups). It is argued that vulnerable people tend to have difficulty expressing their emotions and understanding phenomenon through conversations or written words. Drawing provides a means for them to express their feelings and tell others how they feel about their illness. This method is often used to complement other methods

(continued)

such as in-depth interviews to obtain insight and understanding of the participant's world (Liamputtong 2019b; Liamputtong 2020).

In this research, the drawing method was employed after the in-depth interviews were completed. All participants were given a pack of 48 colored pens and blank flip-chart papers for the drawing session. The participants were then invited to draw the image of the meanings and experiences of breast cancer that they had. When they completed the task, the researchers asked participants to describe the image(s) they had drawn. The descriptions that the participants provided were audio tape-recorded for subsequent data analysis.

Ethical approval was obtained from Thaksin and La Trobe University's Human Ethics Committees. In presenting the women's narratives, each participant was allocated a fictitious name to preserve participant anonymity. Before making an appointment for interviews, the participant's consent to participate in the study was sought. After a full explanation of the study, the length of interviewing time and the scope of questions, the participants were asked to sign a consent form. Each participant was given 200 Thai baht (about US\$7) as a compensation for their time in taking part in this study. This incentive is necessary for sensitive research because it is a way to show that research participants are respected for their time and knowledge (Liamputtong 2020).

With permission from the participants, interviews were tape-recorded. The tapes were then transcribed verbatim in Thai for data analysis. The data was analyzed using a thematic analysis. This method of data analysis aims to identify, analyze, and report patterns or themes within qualitative data. Initially, the researchers performed open coding where codes were first developed and named. Then, axial coding was applied which was used to develop the final themes within the data. This was done by re-organizing the codes that they had developed from the data during open coding in new ways by making connections between categories and subcategories. This resulted in themes, and these themes were used to explain the lived experiences of the participants in their writing.

Conclusion and Future Directions

Qualitative research is now a well-established and important mode of inquiry for the health science fields. We have suggested in this chapter that the inquiry can contribute significantly to global health. However, the field of qualitative research is ever advancing (Hesse-Biber 2017). Gaudet and Robert (2018, p. 2) suggest that "qualitative research is a never-ending journey." This is because "there are always new phenomena to learn about, new methods to invent, and new forms of knowledge to create." We have witnessed this many existing and emerging global health issues attest to this.

Most importantly, we are now living in a fractured world, where we have, and continue to be confronted with social inequalities and injustices in all corners of the globe (Liamputtong 2019b). We need qualitative research that can help us to find better answers that better suit people, particularly those who are marginalized and vulnerable (Denzin 2015; Flick 2018). Qualitative inquiry can lead to a positive change in the life of many people. This is what Denzin (2015, 2017) has advocated. Denzin (2017, p. 8) puts this clearly when he calls for qualitative research that “matters in the lives of those who daily experience social injustice.” We contend that qualitative research will continue to play a crucial role in the global health in the years to come.

References

- Adams V, Behague D, Caduff C, Löwy I, Ortega F (2019) Re-imagining global health through social medicine. *Global Public Health* 14(10):1383–1400
- Avis M (2003) Do we need methodological theory to do qualitative research? *Qual Health Res* 13(7):995–1004
- Banning M, Hassan M, Faisal S, Hafeez H (2010) Cultural interrelationships and the lived experience of Pakistani breast cancer patients. *Eur J On Nur* 14:304–309
- Baum F (2016) *The new public health*, 5th edn. Oxford University Press, Melbourne
- Bazeley P (2019) Using qualitative data analysis software (QDAS) to assist data analysis. In Liamputtong P (ed) *Handbook of Research Methods in Health Social Sciences*. Springer, Singapore
- Becker TD, Ho-Foster AR, Poku OB, Marobela S, Mehta H, Cao DTX, Yang LS, Blank LI, Dipatane VI, Letumile Rogers Moeng LR, Molebatsi K, Eisenberg MM, Barg FK, Blank MB, Opondo PR, Yang LH (2019) “It’s when the trees blossom”: explanatory beliefs, stigma, and mental illness in the context of HIV in Botswana. *Qual Health Res* 29(11):1566–1580
- Berger RJ, Lorenz LS (2016) Disability and qualitative research. In: Berger RJ, Lorenz LS (eds) *Disability and qualitative inquiry: methods for rethinking an ableist world* (Chapter 1). Taylor & Francis, Hoboken
- Bradbury-Jones C, Breckenridge J, Clark MT, Herber OR, Wagstaff C, Taylor J (2017) The state of qualitative research in health and social science literature: a focused mapping review and synthesis. *Int J Soc Res Methodol* 20(6):627–645
- Braun V, Clarke V (2006) Using thematic analysis in psychology. *Qual Res Psychol* 3:77–101
- Brinkmann S, Kvale S (2015) *InterViews: learning the craft of qualitative research interviewing*, 3rd edn. Sage, Thousand Oaks
- Brown H (2015) Global health partnerships, governance, and sovereign responsibility in western Kenya. *American ethnologist* 42(2):340–355
- Brownson RC, Baker EA, Leet TL, Gillespie KN, True WR (2011) *Evidence-based public health*, 2nd edn. Oxford University Press, New York
- Bryman A (2016) *Social research methods*, 5th edn. Oxford University Press, Oxford
- Carlson G (2019) Global HIV/AIDS statistics. <https://www.avert.org/global-hiv-and-aids-statistics>
- Carpenter C, Suto M (2008) *Qualitative research for occupational and physical therapists: a practical guide*. Blackwell Publishing, Oxford
- Cassell KD, Braun K, Ka’opua L, Soa F, Nigg C (2014) Samoan body and soul: adapting an evidence-based obesity and cancer prevention program. *Qual Health Res* 24(12):1658–1672
- Creswell JW, Poth CN (2018) *Qualitative inquiry and research design: choosing among five approaches*, 5th edn. Sage, Thousand Oaks
- Denzin NK (2010) *The qualitative manifesto: a call to arms*. Left Coast Press, Walnut Creek

- Denzin NK (2015) What is critical qualitative inquiry? In: Cannella GS, Perez MS, Pasque PA (eds) *Critical qualitative inquiry: foundations and futures*. Left Coast Press, Walnut Creek, pp 31–50
- Denzin NK (2017) Critical qualitative inquiry. *Qual Inq* 23(1):8–16
- Dew K (2007) A health researcher's guide to qualitative methodologies. *Aust N Z J Public Health* 31(5):433–437
- Fan EL, Uretsky E (2017) In search of results: anthropological interrogations of evidence-based global health. *Crit Public Health* 27(2):157–162
- Flick U (2018) Triangulation. In: Denzin NK, Lincoln YS (eds) *The Sage handbook of qualitative research*, 5th edn. Sage, Thousand Oaks, pp 444–461
- Fontana A, Frey JH (2000) The interview: from structured questions to negotiated text. In: Denzin NK, Lincoln YS (eds) *Handbook of qualitative research*, 2nd edn. Sage, Thousand Oaks, pp 645–672
- Gaudet S, Robert D (2018) *A journey through qualitative research: from design to reporting*. Sage, London
- Geertz C (1973) *The interpretation of cultures*. Basic Books, New York
- Giacomini MK (2001) The rocky road: qualitative research as evidence. *ACP J Club* 134:A11–A12. Retrieved from <http://www.acpj.org/Content/134/ISSUE/ACPJC-2001-134-1-A11.htm>
- Harper D (2002) Talking about pictures: a case for photo elicitation. *Vis Stud* 17(1):13–26
- Harper D (2012) *Visual sociology*. Routledge, New York
- Hess JJ, Eidson M, Tlumak JE, Raab KK, Lubner G (2014) An evidence-based public health approach to climate change adaptation. *Environ Health Perspect* 122(11):1177–1186
- Higginbottom G, Liangputtong P (eds) (2015) *Using participatory qualitative research methodologies in health*. Sage, London
- Hesse-Biber SN (2017) *The practice of qualitative research*, 3rd edn. Sage, Thousand Oaks
- Houser J (2015) *Nursing research: reading, using, and crating evidence*, 3rd edn. Jones & Bartlett Learning, Sudbury
- Jones T, Ho L, Kun KK, Milsom P, Shakpeh J, Ratnayake R, Loewenson R (2018) Rebuilding people-centred maternal health services in post-Ebola Liberia through participatory action research. *Glob Public Health*. <https://doi.org/10.1090/17441692.2018.1427772>
- Kirmayer LJ (2012) Cultural competence and evidence-based practice in mental health: epistemic communities and the politics of pluralism. *Soc Sci Med* 75:249–256
- Liangputtong P (2007) *Researching the vulnerable: Guides to sensitive research methods*. Sage, London
- Liangputtong P (2010) *Performing qualitative cross-cultural research*. Cambridge University Press, Cambridge
- Liangputtong P (2013a) *Women, motherhood and living with HIV/AIDS: a cross-cultural perspective*. Springer, Dordrecht
- Liangputtong P (2013b) *Stigma, discrimination and living with HIV/AIDS: a cross-cultural perspective*. Springer, Dordrecht
- Liangputtong P (2016) *Children, young people and living with HIV/AIDS: a cross-cultural perspective*. Springer, Dordrecht
- Liangputtong P (2017) The science of words and the science of numbers. In: Liangputtong P (ed) *Research methods in health: foundations for evidence-based practice*, 3rd edn. Oxford University Press, Melbourne, pp 3–28
- Liangputtong P (2019a) Qualitative research methodology and evidence-based practice in public health. In: Liangputtong P (ed) *Public health: local and global perspectives*, 2nd edn. Cambridge University Press, Melbourne
- Liangputtong P (2019b) *Handbook of research methods in health social sciences*, vol 3. Springer, Singapore
- Liangputtong P (2019c) *Social determinants of health*. Oxford University Press, Melbourne
- Liangputtong P (2020) *Qualitative research methods*, 5th edn. Oxford University Press, Melbourne

- Liamputtong P, Serry T (2017) Making sense of qualitative data. In: Liamputtong P (ed) *Research methods in health: foundations for evidence-based practice*, 3rd edn. Oxford University Press, Melbourne, pp 421–436
- Liamputtong P, Suwankhong D (2015) Therapeutic landscapes and Thai women with breast cancer. *Soc Sci Med* 128(March):263–271
- Liamputtong P, Haritavorn N, Kiatying-Angsulee N (2015) Local discourse on antiretrovirals and the lived experience of women living with HIV/AIDS in Thailand. *Qual Health Res* 25(2):253–263
- Lincoln YS, Guba EG (1989) *Fourth generation evaluation*. Sage, Newbury Park
- McLaughlin H (2012) *Understanding social work research: evidence-based practice*. Sage, London
- Merriam SB, Tisdell EJ (2016) *Qualitative research: a guide to design and implementation*, 4th edn. Jossey-Bass, San Francisco
- Miles MB, Huberman AM, Saldaña J (2015) *Qualitative data analysis: a methods sourcebook*, 3rd edn. Sage, Thousand Oaks
- Morse JM (2015a) Data are saturated. ... *Qual Health Res* 25(5):587–588
- Morse JM (2015b) Critical analysis of strategies for determining rigor in qualitative inquiry. *Qual Health Res* 25(9):1212–1222
- Morse JM (2018) Reframing rigor in qualitative inquiry. In: Denzin NK, Lincoln YS (eds) *The Sage handbook of qualitative research*, 5th edn. Sage, Thousand Oaks, pp 796–817
- Morse JM, Barrett M, Mayan M, Olson K, Spiers J (2002) Verification strategies for establishing reliability and validity in qualitative research. *Int J Qual Methods* 1(2):Article 2. www.ualberta.ca/~iiqm/backissues/1_2Final/pdf/morseetal.pdf.
- Nathan S, Newman C, Lancaster K (2019) Qualitative interviewing. In: Liamputtong P (ed) *Handbook of research methods in health social sciences*. Springer, Singapore
- O'Reilly M, Parker N (2012) 'Unsatisfactory saturation': a critical exploration of the notion of saturated sample sizes in qualitative research. *Qual Res* 13(2):190–197
- Olson K, Young RA, Schultz IZ (2016) *Handbook of qualitative health research for evidence-based practice*. Springer, New York
- Patton MQ (2015) *Qualitative research and evaluation methods*, 4th edn. Sage, Thousand Oaks
- Raines JC (2011) Evaluating qualitative research studies. In: Grinnell RM, Unrau YA (eds) *Social work research and evaluation: foundations of evidence-based practice*, 9th edn. Oxford University Press, New York, pp 488–503
- Rogers AG (2000) When methods matter: qualitative research issues in psychology. In: Brizuela BM, Stewart JP, Carrillo RG, Berger JG (eds) *Acts of inquiry in qualitative research*. Harvard Educational Review, Cambridge, MA, pp 51–60
- Rose G (2007) *Visual methodologies: an introduction to the interpretation of visual materials*. Sage, London
- Rossmann GB, Rallis SF (2017) *Learning in the field: an introduction to qualitative research*, 4th edn. Sage, Thousand Oaks
- Rubin HJ, Rubin IS (2012) *Qualitative interviewing: the art of hearing data*, 3rd edn. Sage, Thousand Oaks
- Russell S, Seeley J (2010) The transition to living with HIV as a chronic condition: working to create order and control on anti-retroviral therapy. *Soc Sci Med* 70(3):375–382
- Sankar A, Golin C, Simoni JM, Luborsky M, Pearson C (2006) How qualitative methods contribute to understanding combination antiretroviral therapy adherence. *J Acquir Immune Defic Syndr* 43(Supplement 1):S54–S68
- Serry T, Liamputtong P (2017) The in-depth interviewing method in health. In: Liamputtong P (ed) *Research methods in health: foundations for evidence-based practice*, 3rd edn. Oxford University Press, Melbourne, pp 67–83
- Silverman D (2017) *Doing qualitative research*, 5th edn. Sage London
- Taylor SJ, Bogdan R, DeVault M (2016) *Introduction to qualitative research methods: a guidebook and resource*. WileySons, Hoboken

- Teti M, Majee W, Cheak-Zamora N, Maurer-Batjer A (2019) Understanding health through a different lens: photovoice method. In: Liamputtong P (ed) *Handbook of research methods in health social sciences*. Singapore, Springer, pp 1147–1166
- Tobin GA, Begley CM (2004) Methodological rigour within a qualitative framework. *J Adv Nurs* 48(4):388–396
- Toye F, Williamson E, Williams MA, Fairbank J, Lamb SE (2016) What value can qualitative research add to quantitative research design?: an example from an adolescent idiopathic scoliosis trial feasibility study. *Qual Health Res* 26(13):1838–1850
- UNAIDS (2014) Fact sheet: 2014 statistics. Retrieved http://www.unaids.org/sites/default/files/media_asset/20150714_FS_MDG6_Report_en.pdf
- UNAIDS (2016) Children and HIV: fact sheet. Retrieved http://www.unaids.org/sites/default/files/media_asset/FactSheet_Children_en.pdf
- UNAIDS (2017) The global HIV/AIDS epidemic. Retrieved <https://www.hiv.gov/hiv-basics/overview/data-and-trends/global-statistics>
- UNAIDS (2019) UNAIDS data 2019. Retrived from https://www.unaids.org/sites/default/files/media_asset/2019-UNAIDS-data_en.pdf
- Weber S (2008) Visual images in research. In: Knowles JG, Cole AI (eds) *Handbook of the arts in qualitative research: perspectives, methodologies, examples, and issues*. Sage, Thousand Oaks, pp 41–53
- White AH (2015) Using samples to provide evidence. In: Schmidt NA, Brown JM (eds) *Evidence-based practice for nurses: appraisal and application of research*, 3rd edn. Jones & Bartlett Learning, Burlington, pp 294–319
- White F, Stallones L, Last JM (2014) *Global public health: ecological foundations*. Oxford University Press, New York
- Wilson LA (2019) Quantitative research. In P. Liamputtong (ed.), *Handbook of Research Methods in Health Social Sciences*. Springer: Singapore
- World Health Organization (2011) Breast cancer: prevention and control. Retrieved from <http://www.who.int/cancer/detection/breastcancer/en/index.html>
- World Health Organization (2020) Breast cancer: Prevention and control. Retrieved from <https://www.who.int/cancer/detection/breastcancer/en/> Breast cancer: Prevention and control. Retrieved from <https://www.who.int/cancer/detection/breastcancer/en/>
- Yin RK (2016) *Qualitative research: from start to finish*, 2nd edn. Guildford Press, New York