JURNAL ILMU KESEHATAN MASYARAKAT

VOLUME 1 Nomor 03 November 2010 **Tinjauan Pustaka**

# GENERALISIBILITY ISSUE IN QUALITATIVE RESEARCH, A COMMON CRITICISM OF QUALITATIVE RESEARCH IN SOCIAL AND HEALTH SCIENCES

## *ISU GENERALISASI DALAM PENELITAN KUALITATIF, KRITIK UMUM PADA PENELITAN KUALITATIF DI BIDANG ILMU SOSIAL DAN KESEHATAN*

**Najmah**
Dosen Fakultas Kesehatan Masyarakat Unsri
E-mail: najem240783@yahoo.com

***ABSTRACT***

*Research is generally conducted to obtain results in order to be applied in general population. There are two research methods; quantitative and qualitative methods. In quantitative method, some sampling methods are required in order to get selected and random study subjects. Therefore, research results can be generalized in population. However, in this qualitative method, small and purposefully selected sample are recruited. Therefore, if this generalization concept in quantitative method is applied to qualitative research, the results of qualitative research cannot be generalized to wider populations. This review discusses that the generalisibility is not an issue for qualitative research. Main purpose of qualitative research is to explore deep information and have a better understanding about a research issues. Moreover, some fields are well-suited to being explored using qualitative research method such as perception on chronic diseases, effectiveness of some health programs, anthropology, ethnography and social perspective. Other argue that qualitative research is able to be applied to general population with comprehensive design. To sum up, generalization is not the main issue for either qualitative or quantitative research. The accurate methodology should be chosen for the research question, hence internal and external validityis able to applicable research in population.*

***Keywords: Qualitative, quantitative, Generalisation, sample size, population***

**ABSTRAK**

Penelitan umumnya dilakukan untuk memperoleh hasil untuk diaplikasikan pada populasi luas. Ada dua metode penelitan; metode kuantitatif dan kualitatif. Pada metode kuantitatif, metode sampling dibutuhkan untuk mendapatkan responden penelitan secara random. Sehingga, hasil penelitan bisa diaplikasikan di populasi luas. Sedangkan, pada metode kualitatif, sample dipilih dalam jumlah yang kecil dengan kriteria tertentu. Sehingga, jika konsep generalisasi pada metode kuantitatif diterapkan pada metode kualitatif, hasil dari penelitan kualitatif tidak bisa diaplikasikan pada populasi luas. Pada tinjauan pustaka ini membahas bahwa generalisasi bukan merupakan target utama dalam penelitan kualitatif. Tujuan utama penelitan kualitatif adalah untuk mendapatkan informasi yang mendalam dan untuk medapatkan pemahaman yang lebih baik pada isu penelitan. Kemudian, beberapa bidang juga lebih sesuai jika diinvestigasi dengan metode kualitatif seperti, persepsi terhadap penyakit kronis, efektivitas program kesehatan, etnografi dan antropologi, dan persektif sosial. Pendapat lain menyatakan bahwa penelitan kualitatif bisa digeneralisasikan jika menggunakan desain penelitan yang komprehensif. Kesimpulan review ini bahwa generalisasi bukanlah isu utama pada penelitian kuallitatif ataupun kuantitatif. Metodologi yang akurat haruslah dipilih sesuai dengan pertanyaan penelitan sehingga validitas internal dan eksternal penelitan bisa menghasilkan penelitan yang bermanfaat pada populasi.

**Kata kunci: Kualitatif, kuantitatif, generalisasi, jumlah sampel, populasi**

## INTRODUCTION

Every scientific inquiry is investigated in order to find out reality from some phenomenon or events. There are two scientific methods that are designed to answer this research questions; qualitative and quantitative research method. Both research methods aim to modify theory and deliver new knowledge and understanding of research issues through a carefully executed and systematic method.[1]

Qualitative and quantitative research deals with a different type of questions although similar topics may be investigated. For instance, a research regarding adherence to drug treatment; the proportion and demographic characteristic of patients that take a certain percentage of prescribed drugs in a period of time will be investigated in a quantitative study. On the other hand, qualitative research are required to explore the reasons for variations in adherence and the meaning of drug treatment in the lives of patients. [2]

Quantitative and qualitative research methods have different designs to investigate their scientific inquiry. [1] In quantitative method, some sampling methods are required in order to get selected and random study subjects. [1, 3] Using the logic of probability of statistics, sample from even a very large and heterogeneous population can be drawn. [3] Therefore, research results can be generalized in population. [1, 3] On the other hand, in this qualitative method, small and purposefully selected sample are recruited.[1, 3, 4]

Therefore, if this generalization concept in quantitative method is applied to qualitative research, the results of qualitative research cannot be generalized to populations.[1, 3] In other words, conducting qualitative research results may not be applied at population level.

This review argued that generalisibility is not an issue for qualitative research. This paper contains brief description of qualitative research. Furthermore, the paper discusses the arguments that support this criticism, including understandings that main aims of qualitative research is not generalisability and special topics that only can be conducted using this method. Moreover, it also covers a discussion regarding understanding assumptions of generalisability in quantitative research and contradictory arguments regarding the generalizibility in qualitative research.

## DISCUSSION

### Qualitative research

'*An interpretative orientation that highlights the complex and nuanced process of the creation and maintenance of meaning*' is depicted in qualitative research.[5] The approach of qualitative research is more flexible and fluid than quantitative statistical methods. [5]

The methods used to implement qualitative research are complex and changing thus leading to a strongly contested debate about the best research practices. [6] Some of the major types of qualitative research methods are in-depth interviews, focus group discussion, unobtrusive methods, narrative analysis and life history, memory-work, ethnography, and participatory action research. [5]

### Aim of qualitative research is not generalization of studies

Some argue that generalization is not the aim of qualitative research.[1, 4] There are a range of views regarding the main aims of qualitative research. First, Morse[1] explains that qualitative research method aims to generate comprehensive, complete, and saturated theory and accounts for negative cases by selecting small and purposeful samples. Second, according to Sandelowski[4], the aims of qualitative health research are to explore more stories from study subjects in order to obtain evidence-based practice of these revelations, clarifications, distillations, elaborations, extensions, complication, refusal, explanation, personification, individualization, specification, sensitization, persuasion, evocation and provocation. Lastly, Liamputtong & Ezzy[5] state that the objective of qualitative research is to obtain the contextualized nature of experience and action.

To strengthen the arguments above, an example was given, a social and behavioural study using qualitative research design on perception risk of Avian Influenza among selected communities in Indonesia by Dr Oratai Rauyajin, et al.[7] In this study, the researchers interviewed small and purposely selected samples of community leaders, religious leaders, health volunteers, poultry producers/buyers/sellers, health and agricultural officers in the study area. The research aim is to explore detailed information regarding the Avian Influenza (AI) related behaviours, social, cultural, psychological and economic determinants. The researchers also investigated including risk behaviours, preventive behaviours, compliance with AI control measures and health care seeking using in-depth interview and focus group discussion.[7] Based on this example, the researchers only chose small and selected samples with different backgrounds in

population, so they could provide more in-depth information regards the risk perceptions in AI. Although, the result of this research may not be generalisable to whole population in Indonesia or worldwide due to small and not random sample, obtaining dense and thick information is more important in qualitative research. Hence, understanding risk perceptions regarding AI could be gained in order to plan better health promotion programs to improve risk perception of AI among the community

In addition, another aim of qualitative research could also be applied in this circumstance to gain a better understanding and insights of why some intervention programs may not have been successful. According to Grypdonck [8] and Shortell [9], qualitative research benefits to obtain more understandings of the findings of quantitative research and programs. Schwandt[10] added that qualitative research aim to increase powers of perception in order to enhance practical wisdom. One example is application of 'Scared straight and other juvenile awareness programs' in at least six countries in order to prevent juvenile delinquency. [11.]

Based on theory, the impact of visiting a prison by juveniles is to experience of prison life through exposure to negative role models. Therefore, this program is intended to frighten or scare juveniles away from crime with view to reduce crime and offending. [11] However, a meta-analysis based on nine randomized trials concluded that the prevalence of crime increased among juveniles in the intervention group compared to control group. [11] The results indicated that this intervention on average was found to be more harmful to juveniles than doing nothing. The evidence in the quantitative research has the opposite expected results of the genuine aims. Therefore, a qualitative study is needed to investigate why this condition occur. A strong argument can often be made about studying the 'negative case'. In other words, the researchers look for a particular case that differs from the general pattern of other cases in population. With this study, the particular cases can generate understanding why this case is so different. [6]

**Special issues can be investigated only using Qualitative research methods**

Not all research questions can be investigated and analyzed using numbers and statistical methods to count the result of the research. According to Rossman & Rallis [12], description and interpretations are the main outcome in qualitative research, not measurement and predictions. Some activities in qualitative research are; watch and listen as folks explore their everyday task, read documents and records, and observe physical space, clothing, tool and decorations. [12] Some fields that are well-suited to being explored using qualitative research method are chronic diseases, effectiveness of some health programs, anthropology, ethnography and social perspective.

Research conducted to obtain the perspective of people with chronic diseases is challenging. However, exploration of this issue is essential to understand what the diseases mean and how people try to cope it. [8] One study by Barbara L.Paterson cited Clarke & Allen [13] in investigates the shifting perspectives model of chronic illness by. This study was derived from a metasynthesis of 292 qualitative research studies. The purpose of the study was to pull together a new understanding of the behaviours manifested by people with chronic illness that may seem, at first glance, unuseful or detrimental to the relevant individual.[13] The result signified methods that health professionals were able to help support people with chronic disease.[13] Other instances of qualitative research that relate to health are to understand handicapped people, people with Alzheimer' disease, people who rise from death after a bone marrow transplant, and leaving one's sick life behind (8).

Related to anthropology and social perspective, the aims of this type of research is not discover general laws of human behaviour, but to explore and describe a specific group in details, to explain the patterns of possible range of human behaviour.[3] It is similar to ethnographic research whose aims is to satisfy three simultaneous requirements associated with the study of human activities ; 'The need for an empirical approach, the need to remain open to element that cannot be codified at the time of the study and a concern for grounding the phenomena observed in the field '(14). Therefore, understanding the complex culture and the pattern of behavior is the main aim these research. Young (15) provides one study regarding anthropological approaches to the Arab family. The paper described conceptual distinctions inspired by cross-cultural

approaches to family, attempts to reach a definition of the Arab family, and to outline the parameters of variation in family forms and functions in the context of broader social, political and economic change.

Based on those literatures and some instances, exploring information in as much depth as possible is not the main purpose of qualitative research. So generalizing research results is not required. Qualitative research is also required to investigate some issue related to health perspective, anthropology, ethnography and social fields. Furthermore, qualitative research can also complement, improve and enrich understandings of some quantitative research results. In social and health development perspectives, qualitative studies can shed light on how and why widely implemented programs are not successful and, in the same direction could also be used to explore and discover methods and interventions to improve program design, efficiency and effectiveness

**Qualitative research results can be generalised**

Some researchers argue about the criticism of that qualitative research is not generalisable. A qualitative research result is able to be generalized at population level. According to Groleau, Zelkowitz, & Cabral (16), a sequential-consensual qualitative design could generate data with adequate external validity that could influence clinicians and public health programming. They added that generalisability in a qualitative research can be gained by performing a sequential-consensual qualitative design, as a result transfer and translation of popular knowledge can contribute to social change (16). This design also provided a conducive context for a vulnerable population to produce recommendations using an etnographic and participative approach (16). Punch (6) added two ways to generalize results of a case study; conceptualize and develop propositions. Punch (2005) emphasized that a case in qualitative study could be similar to other cases in some respects although a case is unique. Potential common elements in a case will be necessary in analysis if the goal of qualitative study is generalization. Developing abstract concept and propositions raise the analysis above simple description is a method to potentially generalisable findings (6).

Morse (1999) supported the generalisibility of qualitative research results although the sample of this type of research is not random and adequate. Morse gave an instance regarding her study on privacy investigated in an all-male nursing home. Morse studied ethnographic study regarding privacy norms among nurses and residents in nursing home, whether they were respected or violated. The respect for privacy norms occurred if nurses or residents treated one another as they would treat a person. However, if this respect is violated, privacy norms are not enforced. This study can be generalized to any setting that have concern about the problem of privacy violations, such as female oncology unit, a psychiatric unit or other setting.

**Assumptions of generalizibility in Quantitative research is questionable**

In quatitative methods, some assumptions are used regarding generalization. Morse (1999) emphasized that demographic characteristics being used ensures comparability between the sample and the study population in quantitative inquiry. The assumption is this research findings from study subjects would be similar to those from the entire population if we studied the entire population by selecting randomly and selected sample in the demographic variables (Morse, 1999). Huberman and Milles (2002) also supported that the selection of an adequate and random sample, settings, treatment and measurement variables are important in order to generalize research results to diverse populations and times in quantitative research.

For instance, using the writer's research project for Master of Public Health, a quantitative research design was chosen. Data from the Geelong Osteoporosis Cohort will be collected. All data from this study are using random-population based cohort study with 77 % of participant rates from whole population in Geelong. Statistical analysis using a computer package will be utilized in order to answer my research questions. All data regarding demographic and medical assessment will be counted and finally a conclusion will be gained in order to know hip fracture predictors in society. The assumption is that generalizibility of the result analysis can be achieved as the random-population based cohort will be used that indicates a representativeness of population.

Randomized control trials (RCTs) are believed that has the highest evidence of quantitative methods. In RCTs, study subjects will be selected and then grouped into intervention group and non-intervention group by a random process in order to enhance the generalization and minimize bias. Elwood (17) stated that randomization is considered as the best method to allocate two or more groups of subjects with similar characteristics. Moreover, single or double blind methods are usually used in this method in order to minimize bias in the recording of the outcome. However, with an excellent scientific design does not mean that their results of RCTs are good or correct (17).

This type of research also has limitations because some assumptions are also developed in this research. Firstly, randomization is considered the best method to obtain the balance participants in each group, however, the fact that randomization method is difficult to create a perfect balance two or more groups with similar characteristics such as between treatment and non-treatment group, and treatment and placebo group. Another assumption of analysis is also performed in RCTs regarding losses due to non-participation. An intention to treat analysis is performed to assume participants who could not or would not complete the planned intervention will develop positive outcome or negative outcome, although the outcome of loss of follow up participants is unknown (18). Another limitation is lack of allocation concealment in allocating two groups or more in RCTs (17). Grypdonck (8) added that the effect of not blinded researchers or participants could lead to contamination and selection bias in RCTs. As a result, external validity of the studies could be threatened. Those limitations cannot ensure whether samples of RCTs could represent of a defined source population. In other words, generalization of RCTs results in population is still questionable even though with excellent methods in quantitative methods (Elwood, 2006 ;Grypdonck (8).

Generalization is not the main issue for either qualitative or quantitative research. The accurate methodology should be chosen for the question that the research topic is asking so that it is applicable to that research. In other words, internal validity and rigorous methodology in qualitative and quantitative research will be more essential for the research to gain their purposes compared to generalization issue.

## CONCLUSION AND LIMITATIONS

Generalization is not a major issue in qualitative research. Exploration and obtaining dense information from experience, nature and behaviour is the main purpose of qualitative research. Moreover, qualitative studies yield knowledge of particular fields such as anthropology, ethnography, and social and health perspective. On the other hand, some experts refute this criticism and claim that qualitative research can be generalized. Performing a sequential-consensual qualitative design and rigorous methodology template could aid researchers to gain external validity of their research. Furthermore, generalization is also not major issues for both quantitative and qualitative research. The rigorous methodology should be chosen for the research inquiry to ensure the validity of the research results. Moreover, the methodology should be selected based on the research inquiry so that it is applicable to that research.

The limitations of this review are that limited resources and journal articles explored this issue, hence, there are limited arguments are discussed in this paper. However, the writer tried to explore journals and books that related to this topic as rigorous as possible. Moreover, the paper is not being able to include every alternative for analyzing data and their weaknesses in qualitative and quantitative methods. Moreover, there is no discussion on mixed methods using quantitative and qualitative data in the same study. The reasons are the writer wants to emphasize the understandings of qualitative research itself rather than the differences between qualitative and quantitative research.

**REFERENCE**


1. Morse JM. Qualitative Generalizability. Qual Health Res. 1999 January 1, 1999;9(1):5-6.
2. Jones R. Why do qualitative research? It should begin to close the gap between the sciences of discovery and implementation. British Medical Journal. 1995;311(6996):2.
3. Huberman MA, Milles MB. The Qualitative Researcher's Companion. Sage Publicatiom, Inc; 2002.
4. Sandelowski M. Using Qualitative Research. Qual Health Res. 2004 December 1, 2004;14(10):1366-86.
5. Liamputtong P, Ezzy D. Qualitative Research Method. Victoria: Oxford; 2005.
6. Punch KF. Quantitative and qualitative approaches. London: SAGE Publication; 2005.
7. World Health Organisation. Regional taks force meeting on Avian Influenza, report of the meeting Bali, Indonesia, 3-5 March 2008. 2008 [cited. Available from: http://www.searo.who.int/LinkFiles/Publication_CD-177.pdf.
8. Grypdonck MHF. Qualitative Health Research in the Era of Evidence-Based Practice. Qual Health Res. 2006 December 1, 2006;16(10):1371-85.
9. Shortell SM. The emergence of qualitative methods in health services research. HEALTH SERVICES RESEARCH. 1999;34(5):1083-90.
10. Schwandt TA. Qualitative Inquiry, A dictionary of terms. California: SAGE Publications; 1997.
11. Anthony P, Carolyn T-P, John B. Scared Straight and Other Juvenile Awareness Programs for Preventing Juvenile Delinquency: A Systematic Review of the Randomized Experimental Evidence. Annals of the American Academy of Political and Social Science. 2003;589:41-62.
12. Rossman GB, Rallis SF. Learning in the Field : An introduction to Qualitative Research, 2nd edition. Thousands Oaks, CA: SAGE; 2003.
13. Clarke A, Allen P. Studying the organisation and delivery of health services/. Routledge; 2004 [cited. Available from: http://books.google.com.au/books?hl=en&lr=&id=kpiCNCmr6ioC&oi=fnd&pg=PT58&dq=qualitative+research+in+the+perspective+of+the+person+with+the+chronic+diseases.&ots=iXrGhbJiDs&sig=jWgnpbT4LWhEoxVTun63j2yrRY0#PPA47,M1
14. Silverman D, editor. Qualitative Research,2nd edition. London: SAGE; 2004.
15. Young WC. Anthropological approaches to the Arab family: An introduction. JOURNAL OF COMPARATIVE FAMILY STUDIES. 1997;28(2):1-13.
16. Groleau D, Zelkowitz P, Cabral IE. Enhancing Generalizability: Moving From an Intimate to a Political Voice. Qual Health Res. 2009 March 1, 2009;19(3):416-26.
17. Elwood M. Critical appraisal of epidemiology studies and clinical trials. Third edition ed. New York: Oxford University Press; 2007.
18. Newell DJ. Intention-to-treat analysis:Implications for quantitative and qualitative research. International Journal of Epidemiology. 1992;21(5):837-41.