

# The Application of Content Analysis in Nursing Science Research

Helvi Kyngäs  
Kristina Mikkonen  
Maria Kääriäinen  
*Editors*



Springer

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## About the Editors



**Helvi Kyngäs, RN, PhD** is a professor of nursing science at the Research Unit of Nursing Science and Health Management, University of Oulu in Finland. She is also a part-time nursing manager in Northern Ostrobothnia Hospital District. She has versatile national and international education and research experience. Her research is mostly focused on adherence to health regimens by patients with chronic disease and effective intervention to improve adherence with health regimens. She has developed and tested nursing theory relating to adherence to health regimens and also developed and tested a number of instruments. She has done extensive research both in qualitative and quantitative research. She is well known for an article on content analysis. She is a popular invited guest lecturer and keynote speaker in many countries, giving lectures on nursing theory and theory development, instrument development, and qualitative study focusing on content analysis and trustworthiness of content analysis. She has been a visiting scholar, visiting professor, and voluntary auxiliary Clinical Associate Professor in Nursing abroad. Additionally, she has worked as a professor in Japan at Kagawa Medical School for two years. She has many international tasks related to developing nursing science curriculum and research. Also, she has been a frequent official assessor both at national and international level giving statements for professorship. Her research has been funded, for instance, by the Academy of Finland and many other well-known foundations.



**Kristina Mikkonen, RN, PhD** is a researcher and educator at the Research Unit of Nursing Science and Health Management at the University of Oulu in Finland. Her professional background includes education from Lithuania, Germany, England, and Finland, with international working experience in mentoring nursing students. Her research focuses on competence in healthcare education and she has created extensive national and international research and educational partnerships. She coordinates major national and international research projects which address social and health care educators' competence development; enhancement of mentors' competence in nursing education; and the implementation of a digital health module for higher education in health sciences. Her expertise includes conducting research in the form of systematic reviews, qualitative data collection and analysis, instrument development, cross-sectional studies, and experimental studies.



**Maria Kääriäinen, RN, PhD** is a professor of nursing science, and the head of the doctoral program in health sciences at the Research Unit of Nursing Science and Health Management at the University of Oulu in Finland. She is a consultant in Northern Ostrobothnia Hospital District with a continual link within clinical nursing to improve evidence-based nursing. She is a Certified Reviewer and Trainer of the Joanna Briggs Institute (JBI). Her research areas are health promotive counseling and competency-based education. She has received major research project grants, one of which was rewarded with a Certificate of Honor for Innovation and Development of Educational Approach by the Ministry of Education and Culture in Finland. She has developed nursing science research by building strong collaborative partnerships among national and international organizations. She has extensive methodological expertise in the use of randomized control trials, systematic reviews, meta-analyses, cross-sectional studies, qualitative study methods, and instrument and theory development.

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## Part I

# Content Analysis





# Qualitative Research and Content Analysis

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Helvi Kyngäs

## 1.1 Research Approaches in Nursing Science Research

Nursing science researchers require a broad range of research approaches because the focal phenomena are usually multi-faceted [1], covering diverse aspects of human beings, their environments, health and nursing practices. Furthermore, it does not address only phenomena that can be objectively measured, but also people's experiences, and seek to understand them in the settings in which they occur [2–4]. Research is a systematic process in which rigorous scientific methods are used to answer questions and solve problems. The common goal is to develop, refine and expand knowledge, which can then be used (in this field) to develop evidence-based nursing, evidence-based nursing education and nursing leadership practices, as well as to develop and test nursing theories.

Due to its wide scope, diverse methodologies are applied in nursing science research. Generally speaking, research can be divided into quantitative and qualitative methods, as well as mixed methods—which use both quantitative and qualitative methods. Furthermore, research can be divided into deductive or inductive research based on the starting point. Quantitative research is generally deductive while qualitative research tends to be inductive. These two research types have different philosophical foundations and are conducted in distinct ways.

Scientific research is commonly carried out to describe, explain or predict something. The aim in a descriptive study is to describe a certain phenomenon, for example, adherence to health regimens (Fig. 1.1). An exploratory study is an extension of descriptive research, with an additional aim of identifying

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