
Methodological Diversity in Health Care Master's Theses in Finland: A Pilot Study

Eeva Liikanen¹, Nina Kilkku², Merja Sinkkonen³

¹Adjunct Professor Tampere University of Applied Sciences, Finland, ²Associate professor VID Specialized University: Oslo, Norway, ³Principal lecturer Tampere University of Applied Sciences, Finland.

How to cite this article: Eeva Liikanen, Nina Kilkku, Merja Sinkkonen. Methodological Diversity in Health Care Master's Theses in Finland: A Pilot Study. *International Journal of Nursing Education* / Vol. 16 No. 4, October-December 2024.

Abstract

Background: Master's level education could strengthen the efforts to sustain and retain professionals in health and social care by providing possibilities of career development. The master's education thesis process allows students to demonstrate their research competence, which could be one answer to enhancing research competence in clinical practice. This research examines what kind of research methods have been used in the master's level health care education theses in Finland.

Methods: 1056 master's theses in health care educations in Finland in 2017-2018 were analyzed with the document analysis and categorized as qualitative, quantitative, literature reviews and other methods.

Results: 30% of theses were conducted with qualitative and 12 % with quantitative methods. 6 % were literature reviews while the most were categorized in the other methods (52%). Different surveys were the most widely used method (32%) and interviews (20%) for data gathering among this category but several others, like workshops, Learning Cafes, observations, SWOT analysis, benchmarking, and brainstorming were mentioned.

Conclusions: Results could be partially explained with the context of the study, but at the same time they raise a critical question and need for future research.

Keywords: master's degree, health care, thesis, methodology, higher education

Background

In health and social sector, the shortage of professionals, especially nurses,¹ as well as problems with recruitment and retention have been reported in several countries. These problems were spotlighted by the pandemic although many of them exist

already before.² Possibilities for career development has been mentioned as one key to make this sector more appealing. Master education is proving one opportunity to increase one's competence in several areas of health and social care while increasing academic competence. The request for an increase

Corresponding Author: Eeva Liikanen, Adjunct Professor Tampere University of Applied Sciences, Finland.

E-mail: eeva.liikanen@tuni.fi

Submission date: February 7, 2024

Revision date: August 21, 2024

Published date: Oct 22, 2024

This is an Open Access journal, and articles are distributed under a Creative Commons license- CC BY-NC 4.0 DEED. This license permits the use, distribution, and reproduction of the work in any medium, provided that proper citation is given to the original work and its source. It allows for attribution, non-commercial use, and the creation of derivative work.

in academic competence lies in various levels of education and is highlighted by the requests of the evidence-based practice. But at the same time there are worries about the reality with this demand.³ Independently conducted, but supervised master thesis is the most common way to demonstrate one's competence in research. Courses on research methodology are included in the master's degree programs curricula, but there is very limited knowledge on which research methods students are applying in their master's theses. Previous studies have provided information about master thesis in certain disciplines,⁴⁻⁵ within certain frameworks,⁶⁻⁸ according to certain methods⁹ or by interviewing students on their methodological choices.¹⁰ The aforementioned studies on the master's theses are conducted in the context of universities.

However, the results from the university context might not describe the situation of the methodological choices in universities of applied sciences. In some countries, so called dual model in higher education with universities and universities of applied sciences (in some countries university colleges or polytechnics) still exists while master's degree program might be available in both. The presented study was conducted in Finland where 13 universities and 22 universities of applied sciences are providing master's degree programs. In universities, the master's programs are at least 120 credits (European credit system) while in the universities of applied sciences the master's degree programs in health care educations are 90 credits. Degree programs for doctoral students are available only in universities. Difference between the master's degree exist on the requested work experience; only applicants for at least two years of working experience are applicable for universities of applied sciences, but for master's programs in universities this request does not exist.¹¹ Previous working experience of master's students in universities of applied sciences enables students often to conduct their studies with the focus on developing their work or practice.

The Rectors' Conference of Finnish Universities of Applied Sciences (Arene), have described the cross-discipline competence of a master student as 1) produces new information and reforms operating methods, combining competence in different fields, 2) is able to implement research, development and

innovation projects and apply different research and development methods, 3) is able to develop new customer-oriented, sustainable and economically viable solutions, anticipating the future, 4) is able to analyze the current situation and anticipate the future of their field and changes in the operating environment.¹² Even though competence in research is clearly stated in these recommendations, the knowledge on the applied research methods in the master's thesis in universities of applied sciences is missing. This research aims to fulfil this gap of knowledge from the viewpoint of one country, Finland, as a pilot, by answering to the research question: what kind of research methods have been used in the master's level health care education thesis in Finland?

Method

Document analysis¹³ was adapted in this descriptive research. The open repository service, called Theseus, provides online access to all bachelor's and master's theses published in universities of applied sciences in Finland. Finnish health care educations' master's theses published in this repository 2017-2018 (N=1056) were included in data. The information on permanent link (URL) to each of the thesis, their titles, fields of education in health care, publication year, and applied research methods were gathered. First level of examination of the applied research methods was based on the information on abstracts and if the research methods were not mentioned, the content of the thesis was checked. However, the primary level was the abstracts because of the high number of theses. Research methods were categorized into four categories: qualitative, quantitative, literature reviews, and other methods according to both data gathering and the analysis methods mentioned in the theses. Results are presented as frequencies and percentages. Comparison between Finnish universities of applied sciences is excluded from this report.¹⁴

Results

Out of 1056 master's theses 30% were categorized as qualitative and 12 % as quantitative (Table 1). Majority (52%) of the theses were categorized as other methods. Six percent of the theses were literature reviews.

Table 1. Research methods of Health Care Master's theses (N=1056)

Method	Frequency (f)	Percentage (%)
Qualitative	315	30
Quantitative	132	12
Literature review	65	6
Other	544	52

As the number of the other methods was the more detailed analysis was conducted in this category. In this category, the most popular data gathering methods were different surveys (32%) and interviews (20%), but several others, like workshops, Learning Cafes (World Café), observations, SWOT analysis, benchmarking, and brainstorms were mentioned (Table 2). Further analysis showed that in 22% (N=120) of theses in this category were reporting the use of at least three kinds of data gathering methods in one thesis. Similarly, in every fifth theses at least two research methods were mentioned. They were named for example as action research, development activity, research-based development, and development project.

Table 2. Data gathering methods among other methods of Health Care Master's theses (N=544)

Data gathering method	Frequency (f)	Percentage (%)
Survey	175	32
Interview	110	20
Workshop	45	8
Learning Cafe	36	7
Observation	35	6
SWOT	14	2
Benchmarking	12	2
Brainstorm	11	2
Other	223	41

Discussion

The results describe the research methods applied in master's level health care education's theses at certain time in Finland. Because of the dual model in higher education in Finland, more fully picture would be possible only if the master's theses in universities would be examined in a similar manner. Therefore, this research should be considered as a pilot and start of the discussion on research education in higher education institutions.

Previous studies on the subject are sparse. Literature review has been found as the most common method in the Master of Nursing degree program at The University of Washington Tacoma¹⁵ and survey as the most common in the social workers' masters' level education in Turkey.¹⁶

Also in Turkey, in master's level nursing education 83,2% has been reported as experimental and 16,8% as descriptive, major of theses being quantitative.¹⁷The results of the presented study do not follow these trends, but the difference in the context as well as the age of the studies might have an influence.

The result revealed not only the amounts of qualitative and quantitative methods as well as literature reviews, but also the strong emphasis on other methods. It could be argued that more detailed analysis would place some of these in the aforementioned categories, but still the category is large and also includes theses with several different methods mentioned. Although acknowledging that for example action research is an approach which could include several different data gathering and analysis methods, this observation raises a critical question of the methodological competence and mastery with variety of data gathering and analysis methods in limited time and invites further research on curricula and course contents of the methodological studies as well as studies to evaluate the research competence of master's students. As the previous knowledge on the subject is very limited, we hope this pilot study would encourage international colleagues for similar research also in different disciplines in different countries.

Conclusions

The results of the presented study give an overview of the methods used in master's theses in health care education provided by universities of applied sciences in Finland. Interesting finding was the wide use of several methods which also raised concern about the research competence and mastery of several methods in this level of education. This pilot study also showed that previous studies on the topic are very limited and therefore further research is needed on the master's level education also from this viewpoint.

Conflict of Interest: The authors declare that there is no conflict of interest.

Source of Funding: The authors received no financial support.

Ethical Clearance: This study doesn't involve human and animal subjects.

References

- Buchan, J., Cotton, H. & Sharred, F. A. Sustain and Retain in 2022 and Beyond. The Global Nursing Workforce and the COVID-19 Pandemic. International Council of Nurses and CGFNS International Inc. 2022; Available: www.icn.ch
- WHO State of the world's nursing 2020: investing in education, jobs and leadership. 2020. Available at: www.who.int/publications/i/item/9789240003279
- Borglin, G. & Fagerström, C. Nursing students' understanding of critical thinking and appraisal and academic reading: A descriptive, qualitative study. *Nurse Education on Practice* 2012; 12, 256-360. 10.1016/j.nepr.2012.04.009
- Drysdale, J.S., Graham C.R., Spring, K.J. & Halverson, L.R. An analysis of research trends in dissertations and theses studying blended learning. *Internet and Higher Education* 2013; 17, 90-100. 10.1016/j.iheduc.2012.11.003
- Elban, M. Investigation of History Education Researches in Turkey in Terms of Some Variables (Master's Theses and Dissertations Samples). *Universal Journal of Educational Research* 2017; 5(9), 1529-1534. 10.13189/ujer.2017.050910
- Demirel, M., Derman, I. & Can Aran O. Examining Graduate Dissertation in the Field of Critical Thinking: A Case from Turkey. *Eurasian Journal of Educational Research* 2017; 67, 141-159. 10.14689/ejer.2017.67.9
- Edrogan, T. What Does Research Tell Us about Trends in Dissertations on PBL? *Universal Journal of Educational Research* 2017; 5(6): 972-988. DOI: 10.13189/ujer.2017.050610
- Stallinga, H.A., Jansen, G.J., Kastermans, M.C., Pranger, A., Dijkstra, P.U. & Roodbol, P.F. Nurse practitioners' focus on health care in terms of cure and care: analysis of graduate theses using of International Classification of Functioning, Disability and Health. *Journal of Advanced Nursing* 2016; 72(7), 1654-1665. 10.26817/16925777.826
- Durak, Yünkül, E., Cankaya, S., Akpınar, Ş., Erten, E., Inam, N., Taylan, U., & Tastekin, E. Content Analysis of Master Theses and Dissertations Based on Action Research. *Journal of Education and Training Studies* 2016; 4(12), 71-80. 10.14689/ejer.2017.67.9
- Sun, F.-K., Long, A., Chiang, C.-Y., Huang, H.-M., Hou, Y.-C., & Yao, Y. Rationale underpinning postgraduate student nurses' choice of research methods used for their masters' theses. *Nurse Education in Practice* 2018; 33, 127-132. 10.1016/j.nepr.2018.10.002
- Ministry of Education and Culture, Finnish Education System /1.6.2023. <https://okm.fi/en/education-system#Higher%20education>
- The Rectors' Conference of Finnish Universities of Applied Sciences Arene ry 2022 Recommendation on the Shared Competences of Applied Sciences and Their Application. RECOMMENDATION ON THE SHARED COMPETENCES OF UNIVERSITIES OF APPLIED SCIENCES AND THEIR APPLICATION. pdf (arene.fi)
- Dalglish, S., Khalid, H. & McMahon, S. Document analysis in health policy research: the READ approach. *Health Policy and Planning* 2020; 35(10), 1424-1431.
- Liikanen, E. & Kilkku, N. & Sinkkonen, M. Tutkimusmenetelmien moninaisuus terveystieteiden opinnäytetoissa. TAMK Journal 2.5.2022. Available at: <https://sites.tuni.fi/tamk-julkaisut/tamkjournal/tutkimusmenetelmien-moninaisuus-terveystieteiden-opinnaytetoissa-eeva-liikanen-nina-kilkku-ja-merja-sinkkonen/>
- Dobratz, M.C. Primomo, J. & Delo, D. A Comparative Analysis of Master of Nursing Students' Scholarly Inquiry. *Journal of Professional Nursing* 2012; 28(6), 369-376. 10.1016/j.profnurs.2012.04.014 76
- Duman, & İnel, Y. Review of master's theses in the field of social studies education between 2008 and 2014. *Universal Journal of Educational Research* 2019; 7(1), 66-73. <https://doi.org/10.13189/ujer.2019.070109>
- Kaplan, A., Kaplan, Ö. & Çetin, Ş. Complementary Therapies and Supporting Care Practices: Descriptive Analysis of Nursing Theses Conducted in Türkiye between the Years of 2010-2020. *Journal of Education & Research in Nursing* 2023; 20(3), 204-209. 10.14744/jern.2021.21200