

# MAXQDA as an instrument for international collaboration in research

## illustrated by the Brazilian-German-Project on Strengthening Advanced Practice Nursing and Collaboration in Primary Health Care (APN-PHC)

Debora Cecília Chaves de Oliveira, Maike Zwergel, Marcus Heumann, Vanessa Cappellesso Horewicz, Cassiano Mendes Franco, Aline Gonçalves Pereira, Jacqueline Oliveira de Carvalho, Daria Andrea Bula, Daniela Luisi, Anna Christina Nowak, Eduardo Giacomini, Elyne Montenegro Engstrom, Maria Lúcia Frizon Rizzotto, Rosa Maria Rodrigues, Dirce Stein Backes, Lígia Giovanella, Beatriz Rosana Gonçalves de Oliveira Toso, Kerstin Hämel.

### About the research project

**Research project:** “Strengthening Advanced Practice Nursing and collaboration in primary health care (APN-PHC)” (2022-2025)<sup>1</sup>

**Background:** Dealing with chronic diseases poses challenges to health systems all over the world. Strong primary health care (PHC) is perceived as a suitable strategy to address these challenges and, at the same time, meet the needs of ageing populations. In this context, scholars stress the importance of interprofessional collaboration in PHC in order to be able to provide effective and high-quality health care for the population.

Strengthening the nursing profession within interprofessional PHC teams is increasingly recognized as a crucial element of strategies that aim to strengthen healthcare for patients with chronic diseases and facilitate access to care.

Countries have different approaches to expand tasks for PHC nurses. The extent to which they are granted autonomy varies strongly. Advanced Practice Nursing (APN) roles, in which nurses have higher autonomy and expanded responsibilities in certain areas, are well established in Anglo-Saxon countries, such as the United States or the United Kingdom. The two countries being investigated in this project — Brazil and Germany — are still at the beginning of the development of APN.

**Context:** The joint research aimed to strengthen the existing research within the binational research group. Junior scientists at Postdoc, PhD, and Master level have the possibility to gain experience conducting research in an international environment. Therefore, they are guided by experienced professors. In the course of the research project, the research collaboration has been expanded by involving further researchers at junior and senior level from both countries.

**Objective:** To identify the strengths, possibilities, and obstacles of APN implementation and, as a consequence, new models of interprofessional collaboration in PHC in Brazil and Germany.

**Methods:** We conducted nine focus groups with a) stakeholders from regulatory bodies and professional associations in PHC (n = 24) and b) practicing nurses and general practitioners (n = 25) in PHC in Brazil and Germany. Data analysis is based on thematic coding according to Flick (2018). Focus of the analysis was to identify and compare interpretive and practice patterns for the cases of Brazil and Germany.



In order to comply with different data protection regulations in both countries, “Sciebo – the campus cloud”, a non-commercial cloud storage of research institutions in Germany was used for joint collaboration and data sharing.

The common working language in the research team is English.

A focus group guide was collaboratively prepared in English after multiple discussion rounds. It was later on translated into Portuguese and German.

8 focus groups were conducted via Zoom Video Communications®, 1 in-person. 4 focus groups were conducted in Portuguese in Brazil; 5 focus groups were conducted in German in Germany.

The material was manually transcribed mainly by using the MAXQDA Analytics Pro 2022® software. All transcripts were translated into English and internally validated through discussions.

First, country-specific thematic code structures were developed via deductive coding based on the focus group guide and inductively. Then, a common code structure was developed integrating both cases.

In a next step, master and doctoral, and postdoctoral researcher used the data to code specific sub-aspects of the focus groups. For this purpose, sub-projects were built within the team.

The sub-projects were processed by cross-country and country-specific sub-project groups. They used different tools to analyze and illustrate the data e.g. document map, word cloud or coding-segment lists.

Research articles are currently being developed as parts of Master, PhD and post-doctoral projects. In addition, in a research-based seminar M.Sc. Public Health students used the collected data for their own analyses.

### Discussion:

MAXQDA software allowed structured data organization. It provides a high level of flexibility in terms of modifications and additions of sub codes which were necessary to highlight country-specific aspects. Teamwork with researchers from two countries with different languages, cultures and professional experiences was made possible through sub-projects. Different regulations in data protection challenged the research project. They e.g. led to the MAXQDA team-cloud not being used. A connection to commonly used cloud systems would be helpful in this regard.

Challenges during the data analysis emerged e.g. from the translation of the original transcripts into English. In addition, finding a common understanding of codes and terminology was challenging. Disadvantage of coding with MAXQDA was the complexity of the software when several functions such as memos, comments etc. were used in parallel. Working with software such as MAXQDA requires a sufficient knowledge of the software's possibilities and tools in order to be able to use it effectively together.