

# RISKS IN PHARMACY PRACTICE RESEARCH

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## INTRODUCTION

The conduct of pharmacy practice research has contributed to the advancement and innovation of professional pharmacy practice. The emergence of large and complex data sets, dealing with electronic health records and pharmacy practice researchers' use of a variety of mixed methodologies could all pose methodological challenges and risks.<sup>1,2</sup> Risks could arise across the research process, from research design, recruitment process, analysis and interpretation of data to implementation of results.

## AIMS

To identify risks in pharmacy practice research and determine ways how to mitigate or avoid such risks.

The objectives were to:

1. Identify risks encountered in pharmacy practice research through review of pharmacy practice research studies,
2. Develop a risk minimisation strategy based on the identified risks

## METHOD

**Phase 1 – Identification of pharmacy practice research studies and their risks and limitations**

Phase 1 involved the development and validation of a search strategy and the establishment of inclusion and exclusion criteria to identify pharmacy practice research studies. Studies were retrieved and risks and limitations identified. Records were identified through the Open Access Repository of the University of Malta from 2015-2022.

**Phase 2 – Identification of risk mitigation strategies**

Phase 2 involved the identification of risk mitigation strategies through literature review and a focus group discussion which consisted of two academic pharmacists and two members of the Faculty Research Ethics Committee of the University of Malta.

## RESULTS

- A total of 545 titles were retrieved from the Open Access Repository.
- Duplicates, abstracts, poster presentations, and editorials were excluded, leaving 234 studies for title and abstract screening.
- PhD studies and those which the researcher did not have access to were excluded leaving 199 dissertation studies assessed for eligibility (Figure 1).
- A total of 58 studies were included for the review, of which 27 were set in a hospital pharmacy and 20 focused on a pharmacy service or intervention.
- Time constraint was the most common limitation reported (n=21), followed by a small sample size (n=19) and incomplete data (n=8).
- Mitigation strategies to address the identified limitations include designing the study with a longer data collection period, explaining the benefit of the research to the community and limiting and diagnosing missing data where possible.

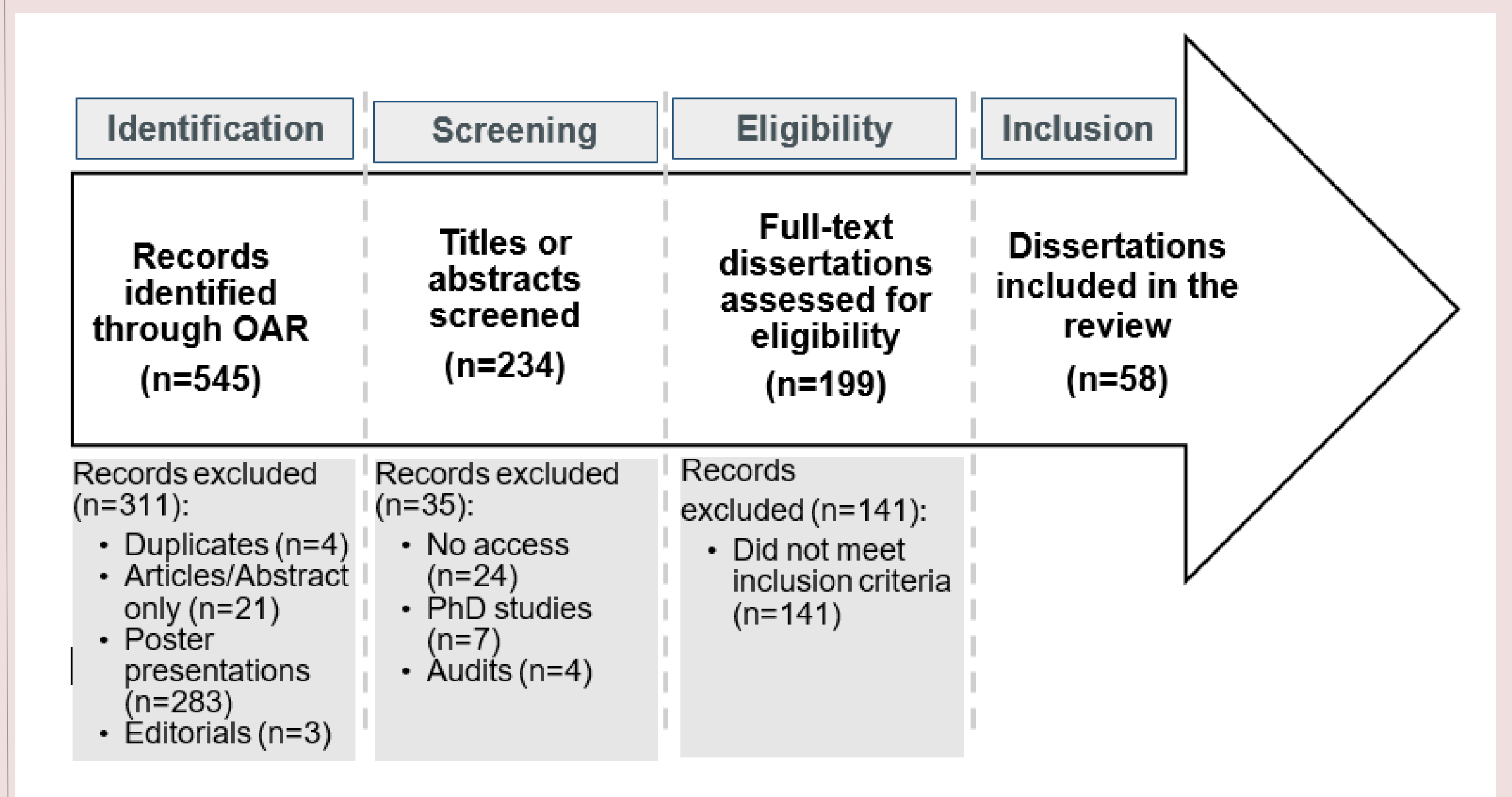


Figure 1. Overview of studies included in the review

## CONCLUSION

Through the identification of risks in pharmacy practice research and the development of risk minimisation strategies, this study could contribute to the improvement of the quality and robustness of pharmacy practice-based research studies. Capacity building and awareness of researchers on risks and the various methodologies, study designs, and analysis employed in pharmacy practice research should receive more attention.

## REFERENCES

- 1 Babar Z-, Scahill S, Nagaria RA, Curley LE. The future of pharmacy practice research – Perspectives of academics and practitioners from Australia, NZ, United Kingdom, Canada and USA. *Research in Social and Administrative Pharmacy*. 2018;14(12):1163-1171. doi: 10.1016/j.sapharm.2018.01.004
- 2 Ma C, Wong Smith H, Chu C, Taira Juarez D. Big data in pharmacy practice: current use, challenges, and the future [Corrigendum]. *Integrated Pharmacy Research and Practice* 2021;8:13-14. 10.2147/IPRP.S204832