Background
Patient agitation is a common phenomenon in the intensive care unit (ICU) and can be caused by factors related to critical illness, unmet needs and reduced stress tolerance. The behaviours are distressing and can be dangerous for patients and clinicians. Psychoactive pharmacological agents such as sedatives can be effective and sometimes necessary to reduce patient agitation. However, due to the serious side effects of pharmacological agents, clinicians are also encouraged to consider nonpharmacological strategies (NPSs). Yet, no evidence-based guidelines exist for patient-centred nonpharmacological care. Care based on clinicians' personal preferences and experiences rather than on evidence is likely to result in ineffective practices and unnecessary pharmacological management.

Aim
The primary aim of this thesis was to develop preliminary patient-centred, evidence-based clinical practice guidelines for the nonpharmacological prevention, minimisation and management of patient agitation in Australian and Danish adult ICUs. A secondary aim was to identify the implications of developing clinical practice guidelines across two countries.

Methods
A systematic review of nurses' experiences of caring for agitated patients confirmed the need for the guidelines. A conceptual framework was developed to guide this study. The framework was informed by a concept analysis of agitation, theories on causes of agitated behaviours, the Fundamentals of Care Framework, and the JBI model of Evidence-Based Healthcare. A multiphase mixed methods study was undertaken to address the thesis aims. The first phase used a novel method to consult Danish and Australian patients, family members, ICU clinicians and researchers (n=51) to determine the scope of the guidelines. The second phase consisted of two systematic reviews synthesising and summarising existing evidence. The last phase involved a three-round modified Delphi study aiming to reach consensus on NPSs among Danish and Australian experts (n=114). The first round of the Delphi study was informed by the existing literature and advice from stakeholders. For items to be endorsed in the final guidelines, a consensus of ≥ 75% was required from Danish and Australian participants. Participants also rated the importance and feasibility of each included recommendation and the perceived barriers and facilitators of guideline implementation.

Main findings
In the first phase of this study, Danish and Australian stakeholders consulted through workshops, interviews, and written feedback expressed a strong need for clinical practice guidelines. Their advice resulted in significant changes to the final guidelines' scope and, consequently, the design of the study. The second phase found limited evidence for any NPSs for agitation. The last phase identified a set of 63 clinical practice guidelines and presented these with linked evidence, undesirable effects, feasibility, importance, the certainty of the evidence, the strength of the recommendations and barriers and facilitators to guideline implementation. Together these recommendations form a new understanding of caring for agitated patients in the ICU. Unique to this is the strong focus on establishing trusting staff-patient relationships, optimising staff's caring behaviours, involving family, identifying causes of agitation and supporting staff to provide NPSs. By using NPSs, staff connect with patients, support their individual needs, motivate and give them strength to engage in health recovery activities and rise above discomforts that cannot be easily

relieved. This study also discovered potential threats to patient-centred care, including physical restraints (PRs) and discontinuity of care. How ICU clinicians deal with agitation is likely to reflect the broader organisational culture and the value organisations place on nonpharmacological care for agitated patients and care for their staff. Using NPSs requires unique skills and staff who feel safe and empowered to take on the role supported by their leaders with adequate resources, knowledge and training, and emotional support. This thesis found that developing guidelines across countries is possible and advantageous. Developing international guidelines avoids duplication of work and ensures better patient outcomes globally. In addition, bringing knowledge and evidence together from different sources can arguably create more comprehensive guidelines. This study also created an awareness of different cultures and how these affect patient-centred care. Guideline developers need to consider these differences and how they can develop guidance that allows contextualisation of recommendations. While developing guidelines across countries is important, it requires resources and careful planning.

Conclusion

This thesis makes several significant original contributions to knowledge. First, it provides a new conceptual understanding of agitation in the ICU. Second, it explores nurses' experiences of caring for agitated patients and finds that agitation management is accompanied by emotional exhaustion. Third, it comprehensively summarises the existing evidence on NPSs for agitation and through a Delphi study identifies a set of clinical practice guidelines. This study also advances guideline development. It provides an example of how a conceptual framework can be used to increase the rigour of guideline development and ensure the development of patient-centred guidelines. It also provides an innovative way of consulting international stakeholders on guidelines’ scope. Overall, it is the hope that the final guidelines will assist clinicians' effective clinical decision-making, promote evidence-based practice and improve patient outcomes.