Introduction

• Survey research provides important information regarding:
  • clinician opinion,
  • adherence to evidence-based recommendations, and
  • practice variation.
• Conduct of large surveys requires:
  • considerable financial resources,
  • time,
  • energy,
  • coordination, and
  • ability to manage anticipated and unanticipated logistical challenges.

Objective

• To inform nurse clinicians and researchers of our experiences in the conduct of a large, Canadian survey of critical care nurses.
• We will illustrate administrative, financial, and logistical challenges.

Survey Objective

• To survey critical care nurses across Canada to obtain a description of their knowledge and practice of pain assessment and management for critically ill adults.

Background

• Canada comprises 10 provinces and 3 territories.
• The majority of RNs (83%; 220,656/266,341) in Canada are registered in the four provinces of Ontario, Quebec, British Columbia, and Alberta.1
• Nursing associations in each province/territory maintain regulation, with the exception of the Northwest Territories and Nunavut that share an association.
• Each nursing association maintains databases that identify nurses’ type of employment according to practice sector (e.g. acute care hospital) and primary area of practice (e.g. critical care).

Administrative Challenges

Determining the Sample Frame

• As only a small proportion of critical care nurses hold CACCN membership (4.5% in 2008),2 we contacted the 12 nursing associations to facilitate survey distribution through their databases.
• One of our challenges was to identify the code in the databases that correctly identified nurses working in adult ICUs, as coding is not the same across all nursing associations.
• We identified a total sample frame of 16,038 nurses.
• We used a stratified, disproportionate, random sampling strategy to obtain representation of ICU nurses across all provinces/territories; Total Sample = 3753 nurses.
• Inconsistencies in nursing associations’ databases challenged our ability to achieve sample targets as a result of:
  • Misclassification of nurses working in adult vs. pediatric/neonatal ICUs.
  • Registration lists containing names of nurses who had moved, evidenced by surveys “returned to sender”, and who identified themselves as no longer practicing in an ICU.

Corresponding with Nursing Associations

• Our first challenge was to determine the person(s) responsible for granting and organizing research requests.
• We had to submit research applications to each association.
• Each association had different regulations regarding the release of nurses’ contact information creating challenges in the preparation, distribution, and tracking of survey materials.
  • 5/12 (42%) nursing associations released mailing lists to us.
  • 6/12 (50%) did not release mailing lists but agreed to distribute surveys for us.
  • Remaining nursing association in Prince Edward Island (PEI) did not have administrative structure to assist with survey distribution.

Financial Challenges

• The study was funded through a competitive peer reviewed grant from the American Association of Critical Care Nurses ($15,000 USD) and the Nursing Research Fund of St. Michael’s Hospital ($5,000 CAD).

Survey Tracking

• Postage:
  • To maximize response rates, we used three rounds of postal contact with a thank-you/reminder letter and a replacement survey sent at two-week intervals after initial survey.
  • Postage for three separate mailings and reply-paid envelopes comprised the largest expense.
  • As domestic mail is charged according to weight, careful planning was required to format survey in manner to stay within lowest weight bracket (30g) to minimize costs.

Minimizing Survey Administration Costs

Postage

• To survey critical care nurses across Canada to obtain a description of their knowledge and practice of pain assessment and management for critically ill adults.

Survey Translation

• Some behavioural pain descriptors were not easily translatable into French resulting in additional team discussion and expert consultation to generate appropriate French descriptors.

Logistical Challenges

• Additional challenges were found when coding comments and answers to open-ended questions to ensure understanding and consistency.

Increasing Response Rates

• Despite three rounds of survey contact our response rate was only 24.5% which compared unfavourably to the response rate (57%) of pilot testing.3
• Due to funding limitations preventing further mail reminders, two more reminders using e-mail and SurveyMonkey® were sent to nurses from the seven nursing associations that were able to release e-mail addresses, increasing the response rate by 1.7%.4

Total Study Expenses

• Funding for critical care nursing research is limited therefore careful planning is required to ensure surveys generate important data with efficient use of resources.
• Potential survey participants should consider the significant resources required to conduct surveys when deciding to respond to survey invitations.

Conclusion

References