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Scoping review protocol examining charge nurse skills: requirement for the development of training

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ABSTRACT

Introduction The charge nurse (CN) holds a position in clinical-administrative management and is essential for improving the quality and safety of care in healthcare institutions. The position requires five essential skills: leadership; interpersonal communication; clinical-administrative caring; problem solving; and knowledge and understanding of the work environment. The scientific literature has not widely examined the importance of providing these skills as part of initial training, nor when CNs begin their duties. This study aims to fill this gap through an exhaustive review of the literature with the aim of developing standardised training for the CN when they start in their position.

Methods and analysis A scoping review using the Joanna Briggs Institute framework will be conducted. The CINAHL, MEDLINE, Science Direct and Cairn, databases as well as grey literature from ProQuest dissertations and thesis global database, Google Scholar and the website of the Order of Nurses of Quebec will be queried using keywords. Relevant literature in French and English, published between 2000 and 2022 will be retained. The CN is the target population. Outcomes address at least one of the five CN skills, describe how they are operationalised and what their impact is on the organisation of work and quality of care. This analysis will identify essential and relevant elements for the development of standardised, up-to-date and appropriate training for the position of CN.

Ethics and dissemination Ethical approval is not required, as data does not include individual patient data. The results will be published in peer-reviewed journals, presented at conferences and presented to nursing managers and directors.

Scoping review registration Research Registry ID: researchregistry7030.

INTRODUCTION

The charge nurse (CN) performs a clinical-administrative management position within the clinical care sector of healthcare institutions. In general, the position requires working in collaboration with the unit manager to coordinate care activities. In the Canadian province of Quebec alone, there are approximately 6630 CNs, representing 8.47% of the total number of active registered nurses.[1] The clinical-administrative management position is described as that held by a professional who

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ The use of a rigorous methodology in accordance with the Joanna Briggs Institute methodological framework.
⇒ Validation involving two of the authors at all stages of the research: literature selection; data extraction and data analysis.
⇒ Advancing knowledge in the nursing management field through the development of a standardised, rigorous, systematic training that will integrate the five charge nurse skills required to carry out the job.
⇒ The lack of systematic quality analysis of the identified literature is a limitation of this study, as it is of all scoping reviews.
⇒ The literature reviewed will be limited to those published in English or French.

assumes the clinical responsibilities of their practice, and the administrative responsibilities related to the organisation of their work, along with the ability to apply bureaucratic processes. Specifically, according to Lessard,[2] clinical activities refer to clinical evaluation, the quality and safety of care, and ensuring that one's knowledge and skills are kept up to date for the purpose of professional development. Administrative activities refer to procedures and processes that must be respected, particularly in the coordination of human and material resources and the management of patient admissions and discharges. Lessard[2] thus suggests that the clinical and administrative skills of a CN complement each other well. According to Boterf,[3] 'Being competent' refers to 'a process consisting of "knowing how to act" in a professional situation by mobilizing an appropriate combination of internal personal […] and external resources […] and by making use of guidance mechanisms'. Furthermore, 'having skills' means having 'the personal resources necessary to know how to act in a professional situation'.[3] These two elements of competence, 'being competent' and 'having skills', are important for the CN in assuming their position. In this regard,

Plourde[4] identified five essential skills for the CN. These are: leadership, interpersonal communication, clinical-administrative caring, problem solving, and knowledge and understanding of the work environment.

The position of CN is vital[5] as CNs ensure the quality and safety of care[6 7] as well as the overall functioning of the unit.[8 9] Despite this, it has been reported that the CN receives almost no guidance when they begin their new position. More specifically, the CN receives little training in the strengthening of clinical-administrative management skills during the initial training nor when CNs take up their duties, which makes it a challenge to perform optimally.[10 11] By the same token, this lack of CN training has implications on three levels: (a) for the healthcare institution, where the CN may create a compromised workflow and provide suboptimal supervision or clinical support to staff, physicians and patients[9 12]; (b) for the CN, as their role will be unclear, which will lead to a lack of understanding of the essential skills needed and how to acquire them to perform well, negatively affecting their leadership skills[12 13] and (c) on the users, as this will affect the continuity and quality of care provided.[9 12] Indeed, without specific training, a gap persists between the complex requirements of this position and the ability to perform it in practice.[14 15] Lessard[1] adds that when CNs begin their career, standardised training is essential in order to better define roles and responsibilities and prepare CNs to step into their position. A narrative review of the literature that we have carried out[16] shows, to the best of our knowledge, that training for CNs is not widely offered in the field nor is it standardised or empirically validated, and training is often incomplete as it does not incorporate the five essential CN skills. In a survey of nursing directors of healthcare institutions in Quebec, Canada, these same issues were reported.[16] Therefore, specific training that addresses these skills is necessary, ideally through the development of a complete and standardised training. To our knowledge, no comprehensive review of the literature exists that addresses the five key skills of the CN with a view to integrate them into a more comprehensive training. To fill these gaps, the present study aims to conduct a scoping review on these five skills outlined by Plourde.[4] The findings will allow for an analysis of how these skills are operationalised in practice and how they impact the organisation of work and the quality of care. Ultimately, this scoping review will inform the development of a standardised and adapted training that will be provided to the CN when they begin their duties to strengthen their skills.

METHOD
This scoping review will begin in January 2022 and end in June 2023.

Conceptual framework
This scoping review is based on Plourde's model[4] that outlines five skills in the clinical-administrative management of the CN:

1. *Leadership*, which is a process of influencing and engaging people to achieve goals, focused on people and innovation.[17 18]
2. *Interpersonal communication,* which is the act of communicating verbally or non-verbally and relating to others.[19]
3. *Clinical-administrative caring,* which refers to the humanistic approach of caring for others within a collaborative relationship, creating a culture of growth, development and autonomy, based on the principles of respect and support.[4]
4. *Problem solving*, which consists of 'understanding a work-related problem or situation and taking steps to resolve it appropriately'.[20]
5. *Knowledge and understanding of the healthcare environment,* which pertain to the goals of the organisation, procedures, protocols and guidelines, resource persons to whom one can refer, and which allow for a global vision of one's organisation.[4]

Plourde identified these skills following the analysis of qualitative and quantitative data collected through observational studies and a self-administered questionnaire completed by CNs working in emergency departments. The skills identified in this specific context are equally applicable to all CNs, regardless of the field of nursing in which they work. Thus, this model was used in Turmel Courchesne's descriptive qualitative study,[21] where nine participants that were hospital staff indicated that, in general, these five skills corresponded well to the reality of the position of a CN. In her model, Plourde[4] breaks down these skills into 23 subskills as shown in table 1. The above studie supports the use of this reference framework across all studies of CN training.

Research question
The research question is: which published articles address at least one of the five CN skills?

Specifically:
1. Do these articles describe the skills for the position of CN?
2. Do these articles highlight key elements in the training of CN to develop these skills?
3. Do these articles indicate any positive or negative impacts (eg, on filling the CN position, on the organisation where the CN works) that are associated with these skills?

Eligibility criteria
The inclusion criteria for the scoping review, in line with the objectives and research question, will be based on the PICOT (population, intervention, comparators, outcomes, time): the population represents the people under study; the intervention is the one under study; the comparators are the elements that are compared or controlled; the outcomes are the impacts of the skills described; and the time represents the time period described in the literature retrieved. For this study, the types of interventions (I) and comparators (C) do not apply; the PICOT is summarised in table 2.

Table 1 Charge nurse skills and subskills

Leadership	Interpersonal communication	Problem solving	Clinical-administrative caring	Knowledge and understanding of the healthcare environment
Knows how to mobilise people	Knows how to listen	Has a global vision	Takes a humanistic approach	Focuses on patients and results
Facilitates change	Knows how to express themself	Has the ability to analyse and synthesise	Maintains a spirit of openness and altruism	
Is proactive	Verifies that information is understood by others	Displays critical judgement and sound decision-making	Encourages the expression of feelings with empathy	
Establishes a relationship of trust		Has the capacity to create and innovate	Provides support	
Knows how to negotiate		Able to manage conflict	Accompanies others in their development	
Knows how to collaborate		Has coping skills (self-control, self-confidence, managing emotions, perseverance)		
Makes use of the strengths of individuals		Has coordination skills (organised, able to delegate, respects others' fields of practice, exhibits good time management)		

Type of population (P)

The target population to be included is the CN. A CN is licensed by their professional nursing order and has a clinical-administrative management position. The position is not exclusively one of management or clinical

Table 2 Population, interventions, comparators and design, outcomes, time

	Concepts	
P	CN	Nurse
		Not in a management position
		Holds a clinical-administrative management position
		Does not *exclusively hold* a clinical nursing position
I	Not applicable	
C	Not applicable	
O	Skills needed for the CN position	Leadership
		Interpersonal communication
		Clinical-administrative caring
		Problem solving
		Knowledge and understanding of the healthcare environment
T	From 2000 to 2022	

CN, charge nurse.

care. The CN in Quebec (Canada) may also be called in French *assistante du supérieur immédiat, infirmière clinicienne assistante du supérieur immédiat* or *infirmière clinicienne assistante infirmière-chef*[22] and in English-speaking health institutions assistant head nurse.[23] In other countries, such as the USA, the CN is also called a CN while in the UK, the term ward sister, ward leader, senior CN, CN or matron is used.[5 7 11 13 24] We will exclude manager, nurse, nursing assistant, senior sister, first-line nurse manager, unit manager, nurse leader, team leader, head nurse, community matron and case manager.

Type of outcomes (O)

The outcomes to be included from the literature will be the description of the skills (leadership, interpersonal communication, clinical-administrative caring, problem solving and knowledge and understanding of the healthcare environment) for the position of CN, how they are operationalised in practice and their impact. Outcomes that focus on elements related to the necessary components of CN skill training will be prioritised. Example of outcome that will be excluded is financial management.

Time (T)

The time frame for publication retrieval will be from 2000 to 2022. We limited the scope of the literature as the role of the CN has undergone substantial changes with each remodelling of the healthcare system. The goal of this research is to develop training that aligns with the role of

Table 3 Keywords

		Concepts	English keywords	French keywords
A		Charge nurse	▶ Charge nurse ▶ Matron ▶ Ward leader ▶ Ward sister ▶ Assistant head nurse	▶ Assistante infirmière-chef ▶ Assistante du supérieur immédiat
B	B1	Leadership	▶ Leadership	▶ Leadership
	B2	Interpersonal communication	▶ Interpersonal communication ▶ Communication	▶ Communication interpersonnelle ▶ Communication
	B3	Clinical-administrative caring	▶ Clinical-administrative caring ▶ Caring	▶ Caring clinico-administratif ▶ Caring
	B4	Problem solving	▶ Problem solving ▶ Conflict resolving	▶ Résolution de problèmes ▶ Gestion de conflit
	B5	Knowledge and understanding of the healthcare environment	▶ Knowledge and understanding of the healthcare environment ▶ Knowledge and understanding of the work environment ▶ Work environment ▶ Care environment	▶ Connaissance et compréhension de l'environnement de soins ▶ Connaissance et compréhension de l'environnement de travail ▶ Environnement de travail ▶ Environnement de soins

the contemporary CN, whose position and responsibilities have been in place for the last two decades.

Data sources and research strategy

This scoping review will follow the framework proposed by the Joanna Briggs Institute[25] which has been adapted from the writings of Arksey and O'Malley[26] and Levac et al.[27] The Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P) checklist[28] has also been used in the preparation of this protocol, to ensure the inclusion of all necessary elements (see online supplemental file 1). The Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews[29] has been consulted, since the PRISMA-P checklist is not specifically tailored to scoping reviews (see online supplemental file 2).

CINHAL, MEDLINE, Science Direct and Cairn will be queried using keywords (MeSH and associated descriptors) combined to create a search strategy using AND and OR Boolean operators. The keywords related to the CN and each of the five skills can be found in table 3. Searches will be done using English and French terms. The grey literature (non-scientific, theoretical, conceptual, dissertations, theses and conference presentations) will be consulted in ProQuest dissertations and thesis global and in Google Scholar. Guidelines and other professional literature available on the website of the Order of Nurses of Quebec will also be reviewed. Included articles must be written in French or English.

First, a search in CINAHL and MEDLINE databases will be completed using the original search strategy (see online supplemental file 3). Next, a research librarian and two scoping review experts will be consulted, and a keyword analysis based on the articles retrieved will be performed to revise the search strategy. This updated strategy will then be used to search all four databases and the grey literature.

Selection process

All references will be exported to Endnote X9 software. After eliminating duplicates, the results will be imported into the Rayyan web platform.[30] Search filters for the languages (French and English) will be added. Three researchers will ensure content validity by reading the titles and abstracts of 10% of the articles to ensure that the keywords used obtained the expected results and that the queries were performed in a similar manner. Following this, in the first round of selection, two independent reviewers will screen all the titles and abstracts to determine their relevance. Duplicates will be removed. A screening algorithm (see figure 1) will be used to perform an initial assessment of article relevance using predefined eligibility criteria. To ensure uniformity in the selection of articles, reviewers will undergo a training session to ensure they fully comprehend the screening algorithm, as well as all the terms used in the process of selecting articles. This meeting will also allow reviewers to ask any questions they may have. Following this, reviewers will begin the screening process, and have a second meeting to review their decisions and ensure uniformity among their inclusions and exclusions. For articles to be retained, both independent reviewers must consider it eligible. In the case where reviewers disagree, a third reviewer will independently review the article title and
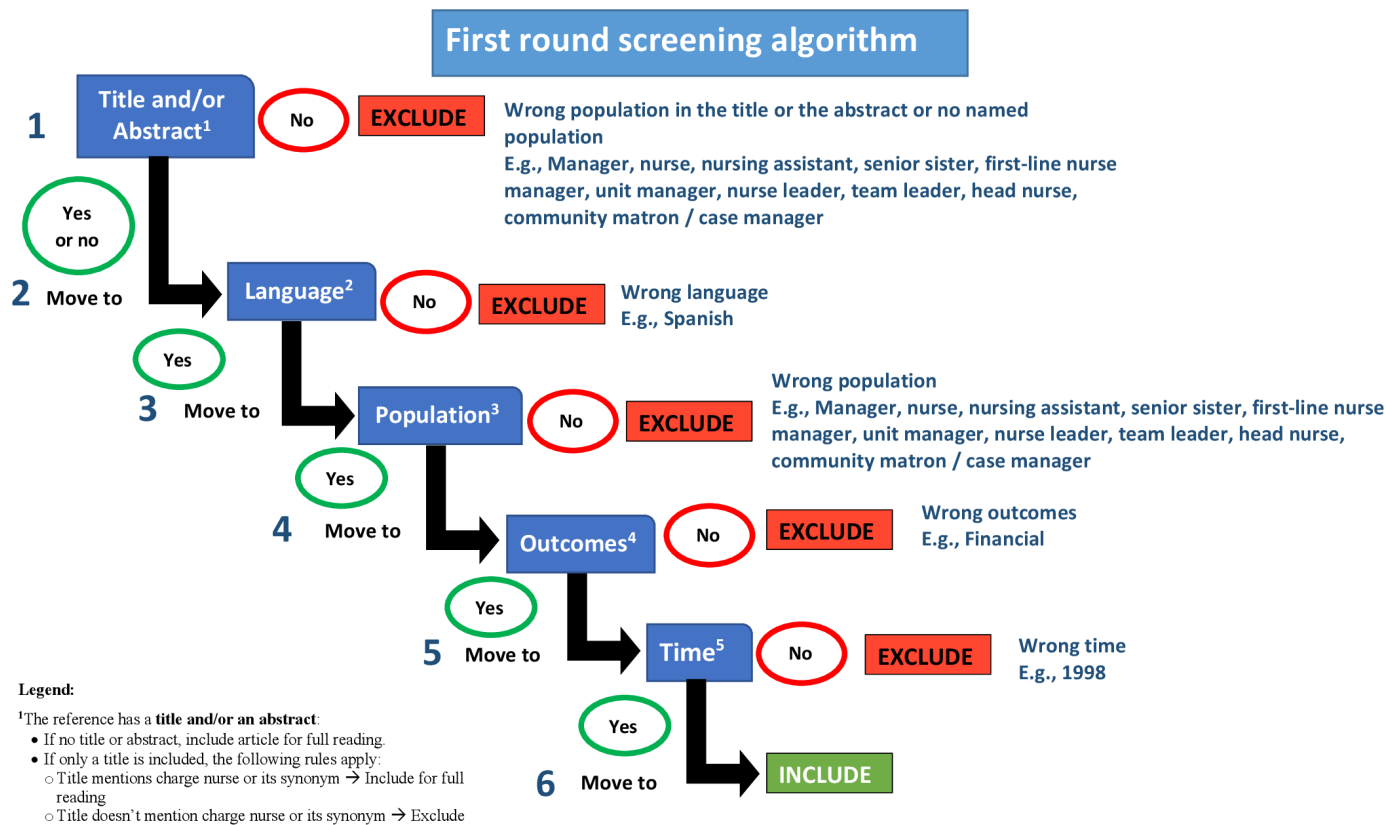
First round screening algorithm

Figure 1 First round screening algorithm.

abstract and decide on inclusion or exclusion, breaking the tie. In the last round, both reviewers will read all the articles retained from the first round and assess them for eligibility. If conflicts emerge among these decisions, a third reviewer will read the article in its entirety and assess its eligibility.

Data extraction

Data will be categorised in an Excel spreadsheet based on the conceptual framework. It will include title, year of publication, authors, type of publication (government, clinical, scientific), country, objectives, reference framework, design, sample and size, tool used for data collection and data analysis, skills and subskills of the CN, results, and recommendations, and finally, if training was developed as part of the study. Data extraction will include: the skills described for the position of CN, the way these skills were operationalised in practice, the impact on the organisation of work and the quality of care. The extraction will be performed by the principal investigator and a coauthor will validate.

Data analysis and synthesis of results

A combination of the methods of Saldaña[31] and Miles et al[32] will be used to: (a) design and map the skills; (b) describe CN skills, how they are operationalised in practice and their impact and (c) synthesise the results to have a set of important elements for developing a training.

The results will be summarised and presented in tables, diagrams and evidence maps. Results will be grouped by skill in a detailed data table. A frequency analysis table that combines the trends of these studies will be provided. The content of the training will be developed using evidence mapping. It will be divided into sections corresponding to the CN's general position (definition of the CN, how the position evolved) and the skills targeted by Plourde.[4] Finally, a summary of the results will be made in relation to the objective of this study, conclusions will be drawn, and potential implications of these results will be shared.

Patient and public involvement

This scoping review was undertaken without patient involvement. Patients were not invited to comment on the study protocol design and were not consulted as to

how this work may inform patient relevant outcomes or how a patient might interpret results. The results of this work will be disseminated to the public and to the health-care professional networks involved in this project via conferences, publications and presentations.

ETHICS AND DISSEMINATION

Since this study does not involve human participants, ethical approval is not required. However, this study is part of a larger research study aimed at the development, validation and pilot testing of training for CN. The project, along with the study setting, has already been accepted by the Research Ethics Committee of the Université du Québec en Outaouais (June 2021, # 2021-1261). The results of this study will be published in a peer-reviewed journal and presented in scientific conferences. In addition, findings will be presented to provincial Directors of Nursing in Quebec (Canada), describing how skills training for the CN will be developed.

DISCUSSION

The objective of this study is to carry out a scoping review that addresses the five skills of the CN as set out by Plourde.[4] The aim of the study is to inform the development of standardised and adapted training that will strengthen the skills of CNs, and which will be provided to the CN early in their career. These studies will describe CN skills, how they are operationalised in practice and their impact. The support offered to the CN when they take up their duties is essential, since the skills required to perform this position are specific and have been only marginally addressed during training. A thorough scoping review will provide the evidence-based data necessary to produce quality educational content. In this way when taking up their duties the CN may be better supported and given an opportunity to perform optimally. Indeed, we believe that CN training will increase staff job satisfaction,[33] which should lead to decreased staff turnover. Furthermore, having a better understanding of the skills required for the position (eg, leadership) will allow the CN to gain the respect of colleagues and their own team.[21] Finally, this training will provide avenues for the CN to obtain all necessary skills, including leadership, and thus result in increased care quality and safety.[34]

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not applicable.

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REFERENCES

1 Ordre des infirmières et infirmiers du Québec. Rapport statistique sur l'effectif infirmier et la relève infirmière du Québec 2020-2021: Ordre des infirmières et infirmiers du Québec. 2021. Available: https://www.oiiq.org/documents/20147/9565847/Rapport-statistique-2019-2020.pdf
2 Lessard I. *Stratégies de soutien au développement des compétences clinico-administratives des infirmières débutantes en fonction d'assistante infirmière-chef (AIC) [Mémoire de maîtrise inédit]*. QC: Université du Québec à Rimouski; 2018,
3 Le Boterf G. *Construire les compétences individuelles et collectives: agir et réussir avec compétence, les réponses à 100 questions. septième édition restructurée, mise à jour et enrichie. ed*. Paris: Eyrolles, 2015: 307.
4 Plourde M. *Le leadership transformationnel au coeur du référentiel de compétences des assistantes infirmières-chefs d'urgence [essai de maîtrise inédit]*. QC: Université Laval, 2012.
5 Scott A, Timmons S. Tensions within management roles in healthcare organisations. *Nurs Manag (Harrow)* 2017;24:31–7.
6 Delamater L, Hall N. Charge nurse development: what does the literature say? *Nurs Manage* 2018;49:34–40.
7 Rankin J, McGuire C, Matthews L, *et al*. Facilitators and barriers to the increased supervisory role of senior charge nurses: a qualitative study. *J Nurs Manag* 2016;24:366–75.
8 Bérubé A-A. *Complémentarité des rôles des infirmières-chefs d'unité et de leurs assistantes pour assurer des soins sécuritaires et de qualité [Mémoire de maîtrise inédit]*. QC: Université Laval, 2016.
9 Connelly LM, Yoder LH, Miner-Williams D. A qualitative study of charge nurse competencies. *MEDSURG Nurs* 2003;12:298–305;
10 Sheets B. *Charge nurse fellowship [thèse inédite de doctorat*. PA: Carlow University, 2015.
11 Westcott L. How coaching can play a key role in the development of nurse managers. *J Clin Nurs* 2016;25:2669–77.
12 Armstrong L, Hedges C. An evidence-based approach to improving performance standards of the charge nurse role in a Union environment. *Newborn and Infant Nursing Reviews* 2006;6:25–9.
13 Lawrence N, Richardson J. To explore and understand the leadership experiences of modern matrons, within an acute NHS trust. *J Nurs Manag* 2014;22:70–9.
14 Assid PA. How to build an ED charge nurse training program. *Nurs Manage* 2010;41:49–51.
15 Spiva L, Davis S, Case-Wirth J, *et al*. The effectiveness of charge nurse training on leadership style and resiliency. *J Nurs Adm* 2020;50:95–103.
16 Jubinville M, Longpré C, Tchouaket EN. n.d. Supporting charge nurses through training: a narrative review of the literature (non published).
17 Yoder-Wise PS, Waddell J, Walton N. *Leading and managing in canadian nursing*. 2e ed. Toronto, Canada: Elsevier Health Sciences, 2020.

18 Kennedy K, Leclerc L, Campis S. *Human-centered leadership in healthcare: evolution of a revolution*. New-York, NY: Morgan James Publishing, 2022.

19 Collectif. *Le Petit Larousse illustré*. Paris, France: LAROUSSE, 2009.

20 Gouvernement du Canada. Résolution de problèmes. 2016. Available: https://www.canada.ca/fr/agence-revenu/organisation/carrieres-a-arc/renseignements-ont-deplaces/competences-arc-outils-evaluation-standardisee/competences-agence-revenu-canada-avril-2016/resolution-problemes.html

21 Turmel Courchesne A-M. *Activités et compétences liées à la fonction de l'assistante infirmière-chef (AIC) en milieu hospitalier: une étude descriptive [Mémoire de maîtrise inédit]*. QC: Université Laval, 2015.

22 Fédération interprofessionnelle de la santé du Québec. Échelles salariales et nomenclature des titres d'emploi, convention collective. 2021. Available: https://www.fiqsante.qc.ca/wp-content/uploads/2021/11/fiq_salaires-et-nomenclature-2021-2023_signets_fr.pdf?download=1

23 Fédération interprofessionnelle de la santé du Québec. Salary scales and list of job titles, collective agreement. 2021. Available: https://www.fiqsante.qc.ca/wp-content/uploads/2021/11/fiq_salaires-et-nomenclature-2021-2023_signets_en.pdf?download=1

24 Firth K. Ward leadership: balancing the clinical and managerial roles. *Prof Nurse* 2002;17:486–9.

25 Peters M, Munn Z. Chapter 11: scoping reviews (2020 version). In: Aromataris E, Munn Z, eds. *JBI Manual for Evidence Synthesis*. JBI, 2020.

26 Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology* 2005;8:19–32.

27 Levac D, Colquhoun H, O'Brien KK. Scoping studies: advancing the methodology. *Implement Sci* 2010;5:69.

28 Moher D, Shamseer L, Clarke M, *et al*. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Syst Rev* 2015;4:1.

29 Tricco AC, Lillie E, Zarin W, *et al*. PRISMA extension for scoping reviews (prisma-scr): checklist and explanation. *Ann Intern Med* 2018;169:467–73.

30 Ouzzani M, Hammady H, Fedorowicz Z, *et al*. Rayyan-a web and mobile APP for systematic reviews. *Syst Rev* 2016;5:210.

31 Saldaña J. *The coding manual for qualitative researchers*. 3e ed. Los Angeles, CA: SAGE, 2016.

32 Miles MB, Huberman AM, Saldaña J. *Qualitative data analysis: a methods sourcebook*. 4e ed. Los Angeles, CA: SAGE, 2019.

33 Moneke N, Umeh OJ. How leadership behaviors impact critical care nurse job satisfaction. *Nurs Manage* 2013;44:53–5.

34 Hughes V. Nurse leader impact: a review. *Nurs Manage* 2019;50:42–9.