Measuring Registered Nurses' Scope of Practice in Primary Care: A Scoping Review of Available Self-Reported Questionnaires

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Abstract

Many authors have reported significant variability in the scope of practice of registered nurses (RNs) working in primary care clinics. Existing self-reported questionnaires (SRQs) for evaluating nurses' scope of practice in these settings are poorly documented, and the conditions for using SRQs in primary care settings are not well understood. We conducted a scoping review using the Joanna Briggs Institute methodology and Preferred Reporting Items Systematic reviews and Meta-Analyses extension for Scoping Review (PRISMA-ScR) guidelines to identify, describe and map current knowledge on SRQs assessing the scope of practice of RNs in primary care. We followed a structured process including search strategy, data extraction and result presentation. This paper presents the results of a scoping review of 12 articles on SRQs assessing nurses' scope of practice in primary care, detailing SRQs, their dimensions, conditions of use and development quality. These results support the need to measure primary care nurses' scope of practice in order to identify the needs and assess the effects of existing and future trainings and organizational structures.

Introduction

Primary healthcare is based on an approach to health that offers comprehensive and integrated health services to the entire population. It is founded on principles of justice, equity and solidarity, which take into account social determinants (WHO n.d.). As a first-contact point of care, primary care must promote accessible, continuous, comprehensive, person-centred and coordinated care to populations (AAFP n.d.; CFPC 2019; Statistics Canada 2020; WHO n.d.). In Canada, primary care clinics adopt the Patient Medical Home (PMH) model to achieve these goals. The PMH model refers to team-based care and focuses on healthcare and services delivered by a group of professionals (i.e., family physicians, primary care registered nurses [PC-RNs], social workers, physiotherapists and pharmacists) working together (CFPC 2019). The PMH must ensure high-quality care and services as it offers, among other things, better accessibility and comprehensive and timely healthcare (CFPC 2019; CMA n.d.). This model relies on 10 pillars

divided into three domains: (1) foundation; (2) function; and (3) ongoing development (CFPC 2019).

Among the different members of the team-based care promoted by the PMH, the PC-RNs are an active part of the primary care team and have competencies specific to their work (CFPNA n.d.; Lukewich et al. 2020). A Canadian competency guide for PC-RNs presents six domains of expertise: (1) professionalism; (2) clinical practice; (3) communication, collaboration and partnership; (4) quality assurance; (5) evaluation and research; and (6) leadership (CFPNA n.d.; Lukewich et al. 2020).

Despite the guidance provided by Canadian guidelines (the PMH model and the Canadian Family Practice Nurses Association [CFPNA] competencies) to support primary care disciplinary and interdisciplinary services organizations (CFPNA n.d.; CFPC 2019), several issues have been reported such as lack of access, lack of family physicians, fragmentation of care, increase in chronic diseases, aging population, care inequities and understaffing of health services (Association médicale canadienne et al. 2022; Gouvernement du Canada 2011, 2021; Queenan et al. 2021). These issues have also been reported globally, indicating that they are not unique to the Canadian context but are prevalent in primary care systems worldwide (Bodenheimer et al. 2009; Endalamaw et al. 2024; Starfield et al. 2005; WHO n.d.). To overcome some of these difficulties, such as the lack of access to a provider, the increase in chronic diseases and the care inequities, PC-RNs could serve as key collaborative contributors with interdisciplinary team members. Indeed, they can take on several nursing activities including assessing physical and mental conditions, preventing disease, promoting health, managing chronic or acute disease, partnering with patients and families when providing care and services and collaborating with other health and services professionals (CFPNA n.d.; Keleher et al. 2009; Lukewich et al. 2014, 2020; Norful et al. 2017; Poitras et al. 2016, 2018a). However, several authors reported variability in the scope of PC-RNs' practice from clinic to clinic and from professional to professional (Halcomb et al. 2016; Lukewich et al. 2014; Norful et al. 2017; Poitras et al. 2018a). Assessing the professional practice of PC-RNs using an SRQ could help identify specific training and infrastructure needs of PC-RNs to support the strengthening of the workforce across Canada. Very little is currently known about SRQs evaluating PC-RNs' scope of practice in Canada and internationally (Braithwaite et al. 2022; Halcomb et al. 2016; Kerdmuang et al. 2014; Landu and Crowley 2023).

Aim

The aim of this study is to identify SRQs assessing registered nurses' (RNs') scope of practice in primary care. Specific objectives are (1) to document the dimensions assessed in SRQs and (2) to assess the quality of the SRQs' development.

Methodology

Study Design

We used a scoping review design to identify and describe SRQs measuring the RNs' scope of practice in primary care. We used this design to map the current knowledge relating to SRQs assessing PC-RNs' scope of practice (Arksey and O'Malley 2005; Peters et al. 2022). We followed the Joanna Briggs Institute (JBI) methodology and the Preferred Reporting Items Systematic reviews and Meta-Analyses extension for Scoping Review (PRISMA-ScR) to report the data (Aromataris et al. 2024; Tricco et al. 2018). We followed these steps: (1) review question; (2) inclusion criteria; (3) search strategy; (4) screening and selection (5) data extraction; and (6) data analysis and presentation of results (Aromataris et al. 2024).

Review Question

What SRQs are available to measure the scope of practice of PC-RNs in primary care clinics internationally?

Inclusion Criteria

Population

This scoping review considered studies that involved PC-RNs, who are licensed professionals with a bachelor's degree or a diploma (in some countries) in nursing (Barrett et al. 2021). They work in collaboration with the family physician and other healthcare professionals as an interprofessional team to increase accessibility and focus on prevention, health promotion and chronic disease management across the lifespan (Halcomb et al. 2016; Lukewich et al. 2020; Norful et al. 2017; Poitras et al. 2016).

Concept

This scoping review considered studies that included SRQ (Rajai et al. 2023). SRQs must include a scoring system based on a psychometric or rash-based system. It allows one to obtain a quantitative assessment of the nurse's scope of practice, which includes the roles, functions and activities authorized by the profession and which the PC-RN has been educated to perform (Almost 2021; Poitras et al. 2016). SRQs must measure specific dimensions of PC-RNs' scope of practice, which can then be generalized to a broader population. Furthermore, SRQs' measurements needed to have a numerical score that can be statistically analyzed to assess relationships between these dimensions and individual characteristics of PC-RNs (Creswell and Creswell 2017).

Context

This scoping review also considered the context of primary care clinics, which are general practice facilities aiming to facilitate access to healthcare by offering

various care services tailored to patients' needs. Within these clinics, a team of family physicians generally works in collaboration with other health professionals to offer person-oriented, coordinated and continuous care in a comprehensive and equitable manner (AAFP n.d.; CFPC 2019; Halcomb et al. 2016; Lukewich et al. 2020).

Types of sources of evidence

The sources of evidence for this scoping review were exclusively searched in scientific databases. Only peer-reviewed scientific articles and review articles addressing topics of interest were included. No additional sources were included, as the development of SRQs is a research-based process.

Search Strategy

We developed the search strategy to search for a maximum number of relevant articles answering the research question. With the help of the academic librarian of Université de Sherbrooke and the research team composed of professors (authors MEPo and CG), we developed a global search strategy that includes several keywords relating to RN, SRQs, practice and primary healthcare. To capture the different keywords and medical subject headings (MeSH) designating primary care used by different countries, we relied on the bibliometric analysis of Duguet et al. (2023) and the keywords listed in the key articles. According to the global search strategy, we first developed individualized exploratory search strategies in MEDLINE, with full text (EBSCO), and CINAHL Plus, with full text, to explore the most relevant keywords and MeSH, enabling us to find key articles relevant to our topic. AM reviewed the number of retrieved articles, their relevance to each keyword, and the inclusion of key articles. Keywords like "frontline," "responsabilit*," "scale," "tool" and "function" were removed for being nonvaluable and noisy. We held meetings with the academic librarian and research team to refine the research strategy. After developing strategies for MEDLINE (EBSCO) and CINAHL Plus, we adjusted keywords for Embase, PubMed and Cochrane databases using a similar process. The search strategies were applied in April 2024 and are shown in Table 1, available online at longwoods.com/content/27549. Studies considered for inclusion included any full-text study published in English or French that developed or used an SRQ to assess the scope of practice of PC-RNs. Studies had to be published between 2000 and 2024. This timeline was chosen as 2000 corresponds to the year in which an increase in the integration of PC-RNs into primary care clinics could be observed worldwide (Halcomb et al. 2016; Lukewich et al. 2022; Norful et al. 2017; Poitras et al. 2018a; Swanson et al. 2020). The studies also had to meet the population, concept and context definitions defined earlier. All the SRQs included were designed to assess the scope of practice of PC-RNs or their equivalent appellation (e.g., general practice nurse, family nurse) (Barrett et al. 2021). SRQs assessing PC-RNs who underwent considerable

advanced focused training were excluded (e.g., nurse practitioner, advanced practice nurse). All SRQs that exclusively assessed PC-RNs' theoretical knowledge about specific diseases were also excluded as they do not provide an evaluation of clinical practice. All survey-type data collection has been removed, as they are not standardized and do not have a scoring system.

Screening and Selection

The research team included AM (student), MEPo (researcher), CG (researcher), MEPe (student), PHRL (post-doctoral fellow), MJE (student) and MM (student). A preliminary meeting with the research team ensured a shared understanding of the selection criteria. The resulting articles after the search strategy were transferred to Covidence (https://www.covidence.org) to proceed with selection. Each member individually reviewed 25 articles using the eligibility criteria. Agreement rates with AM ranged from 80% to 96%. Disagreements were discussed and clarified with the reviewers. AM screened all articles by title and abstract, while the reviewers individually screened about a quarter. Conflicts were resolved by consensus between AM and the reviewers. AM and MJE then read the full texts to select the final articles. Disagreements between AM and MJE were resolved iteratively, with MEPo and CG consulted if needed.

Data Extraction

Data charting process

The articles retained were read and summarized by AM and MJE using the extraction grid. When the included studies came from an SRQ developed by other authors, we searched for the SRQs' development article in the reference list and included it. If the SRQ was developed by other authors and had never been validated with primary care nurses, only the article where the SRQ was adapted in primary care was included, and we did not use the original SRQ development article in the data extraction. Data extraction was carried out simultaneously by AM and MJE independently in two separate documents as recommended by the JBI methodology.

Data items

The extraction grid was developed by AM in partnership with MEPo and CG according to literature, JBI recommendations, PRISMA-ScR recommendations and the two primary care frameworks used in Canada. Data extracted in the scoping review were classified by author, year of publication, country, number of items, questionnaire type (generic or specific), objective of the study, study design, population, completion time, dimensions assessed and conditions of use. The dimensions reported in the extraction grid were developed based on the 10 pillars of the PMH model and the six competencies from the CFPNA framework, resulting in 13 dimensions (CFPNA n.d.; CFPC 2019). When the authors of the SRQs

evaluated new dimensions not present in the grid, we added them inductively to include all the dimensions assessed by the included SRQs.

Critical appraisal of individual sources of evidence

We assessed the development of the SRQs with the consensus-based standards for the selection of health measurement instruments (COSMIN) methodology for assessing the content validity of patient reported outcomes measures (PROMs) to assess the content validity quality of the SRQs development (Terwee et al. 2018). This ensured a thorough evaluation of each SRQ's quality (Terwee et al. 2018). This approach allowed us to systematically appraise the SRQs based on their relevance, comprehensiveness and comprehensibility (Terwee et al. 2018). The COSMIN methodology for assessing the content validity of PROMs was developed, but it can also be applied to a clinician's self-reported measures (Terwee et al. 2018). We used this COSMIN checklist since the tools included were articles on the development of measurement tools. From this perspective, the content validity of tool development is the preferred choice for assessing the quality of the development of the tools (Terwee et al. 2018). AM and MJE used the grid recommended by COSMIN and rated the questions of Boxes 1a and 1b independently. The conflicts were resolved by consensus following a meeting between AM and MJE. The grid including these scores is available in Appendix 1 (available online at longwoods.com/content/27549).

Analysis and Presentation of Results

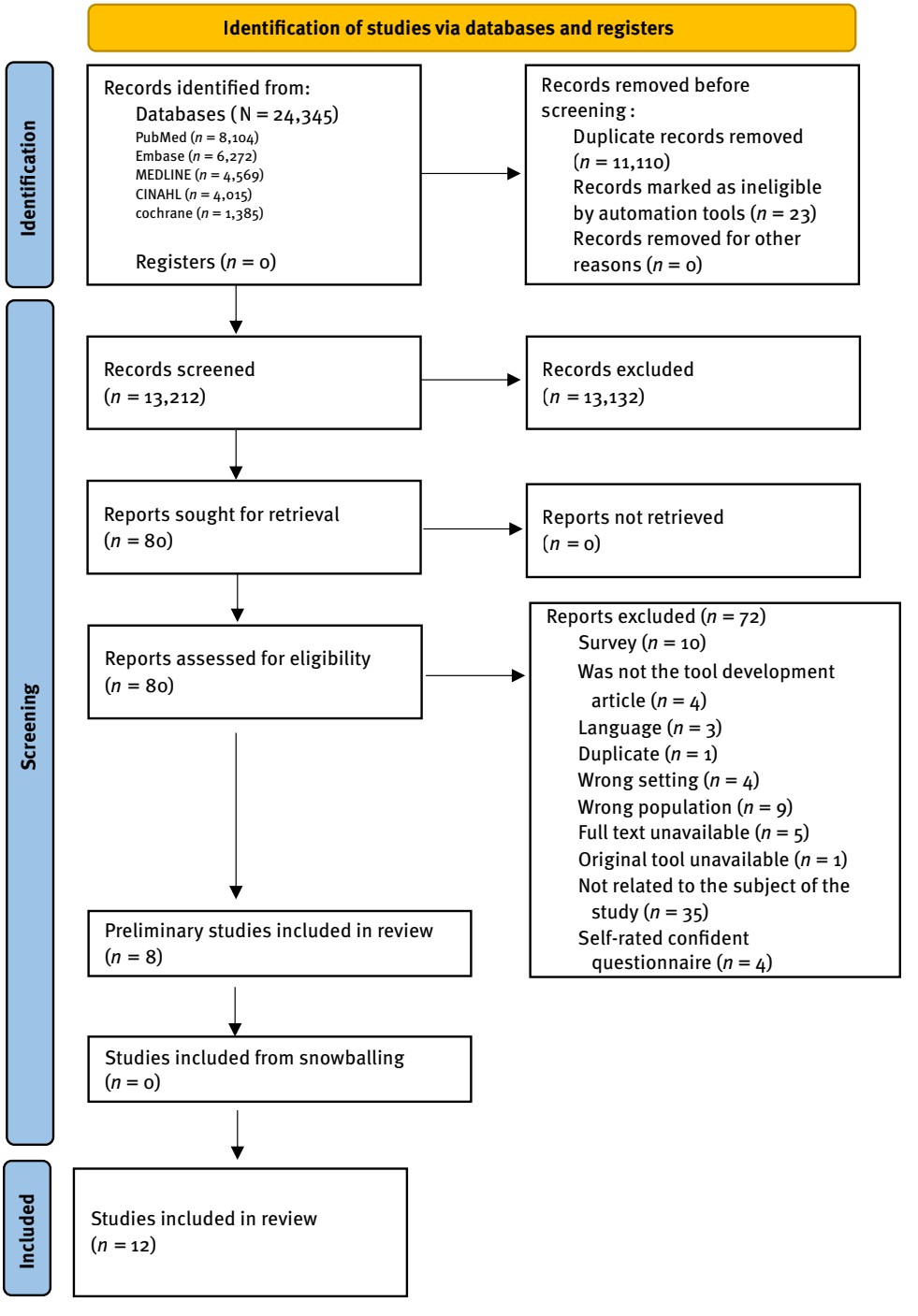
Two meetings were organized between the two reviewers to calibrate the extracted data, as well as to discuss the synthesis and interpretation of the extracted data. Each grid category was reviewed and compared between AM and MJE for each SRQ. As recommended by Peters et al. (2022), we performed a descriptive analysis using both deductive (PMH model and CFPNA framework) and inductive (literature) methods to describe the SRQs and their dimensions and to highlight the conditions of use. As a team, we then discussed the key points for each SRQ. The results were reviewed by AM and MJE for further refinement. MEPo, CG, PHRL, MEPe, MM and MJE participated in the analysis of data and reviewed the studies. MEPo and CG also played a mentoring role throughout the process. They ensured rigour and enriched the analysis through their expertise.

Results

Search Results

We screened 80 full-text articles for the full-text reading stage. After reading the full texts, 12 SRQs were identified: eight SRQ development articles and four articles using an SRQ for which they were not the authors were added through snowballing. We referred to the questionnaire development articles for these four articles to collect and analyze the data. Our search results and the selection

Figure 1. Flow diagram



of studies are presented in a flow diagram (Figure 1). Among these studies, we identified 12 SRQs measuring nursing practice in primary care from 2005 to 2022, with a higher proportion of studies between 2020 and 2022 (42%) and from 10 different countries. Concepts measured by SRQs were evidence-based practice (Gerrish et al. 2007; Ruzafa-Martínez et al. 2020; Upton and Upton 2006), assessment of patients with chronic disease (Carryer et al. 2010), occupational health service competencies (Kerdmuang et al. 2014), self-management support (Duprez et al. 2016), the scope of practice enactment (Braithwaite et al. 2022), intercultural competencies (Harris-Haywood et al. 2014), engagement in primary care (Kosteniuk et al. 2017) and collaboration and end-of-life nursing care (Jaruseviciene et al. 2019; Lemetti et al. 2021). The SRQs included cover a range from 20 to 120 items. Table 2 (available online at longwoods.com/content/ 27549) shows the SRQ's characteristics, and Table 3 (available online at longwoods.com/content/27549) shows the dimensions measured by each SRQ. Following the critical appraisal, the results will be presented in two themes: (1) dimensions measured by SRQs assessing nursing scope of practice in primary care and (2) conditions of use of SRQs measuring PC-RNs' scope of practice.

Critical Appraisal of the Quality of the SRQ Development

Based on Terwee et al. (2018), the critical analysis was reported on the following three topics: (1) PROM design to ensure relevance, (2) cognitive interview study or another pilot test to evaluate the comprehensibility and comprehensiveness of a PROM and (3) total quality of the PROM development study. For each SRQ, we rated each item of the COSMIN tool according to the COSMIN scoring scale: very good, adequate, doubtful, inadequate and not applicable. The complete COSMIN grid for analyzing SRQ development quality is reported in Appendix 1, available online at longwoods.com/content/27549.

PROM Design to Ensure Relevance

The general design requirements are classified as either very good or adequate for all SRQs, as the authors clearly defined the construct being measured, the target population, the context of use and the rationale for the SRQ construct (Braithwaite et al. 2022; Carryer et al. 2010; Duprez et al. 2016; García-Salvador et al. 2021; Gerrish et al. 2007; Harris-Haywood et al. 2014; Kerdmuang et al. 2014; Kosteniuk et al. 2017; Lemetti et al. 2021; Ruzafa-Martínez et al. 2020; Upton and Upton 2006). However, the concept of elicitation, which demonstrates relevance and comprehensiveness, is rated as doubtful or inadequate for all SRQs due to the qualitative approaches being either insufficient or lacking sufficient detail to assess the quality of the elicitation concept.

Cognitive Interview Study or Other Pilot Test to Evaluate Comprehensibility and Comprehensiveness of a PROM

Several authors provide limited details on the processes used to ensure the comprehensibility and comprehensiveness of their SRQs, which resulted in a doubtful rating (Braithwaite et al. 2022; Carryer et al. 2010; Duprez et al. 2016; García-Salvador et al. 2021; Gerrish et al. 2007; Harris-Haywood et al. 2014; Jaruseviciene et al. 2019; Kerdmuang et al. 2014; Kosteniuk et al. 2017; Lemetti et al. 2021; Ruzafa-Martínez et al. 2020). In some cases, the final version of the SRQ was either not tested or only assessed for comprehensibility or comprehensiveness, leading to an inadequate rating (Harris-Haywood et al. 2014; Upton and Upton 2006). In addition, some authors tested content validity using only the content validity index (Braithwaite et al. 2022; Jaruseviciene et al. 2019; Kerdmuang et al. 2014), a method not recommended by COSMIN, which resulted in doubtful or inadequate ratings.

Total Quality of the PROM Development Study

Notably, due to various shortcomings in concept elicitation and insufficient testing for comprehensiveness and comprehensibility, the overall content validity of the SRQs' development cannot be considered of high quality. However, all authors provided a clear description of the concept of interest, target population and context, resulting in a "very good" rating in the general design requirements section. Finally, none of the SRQs received an overall score of "very good" or "adequate," as at least one section of the COSMIN tool was rated as poor quality.

Dimensions Measured by SRQs Assessing Nursing Scope of Practice in Primary Care

Our analyses revealed that the 12 SRQs assessed 20 dimensions of nursing scope practice in primary care. The most commonly evaluated dimension was clinical practice, which included self-management support, evidence-based practice, care coordination and community adaptiveness, covered by 11 SRQs (92%). The only SRQ that does not focus on clinical practice evaluates collaboration between professionals within the workplace (Jaruseviciene et al. 2019). Figure 2 shows the total number of SRQs measuring each dimension. Most SRQs (91.6% or 11 out of 12) are specific, as they measured precise elements of the PC-RNs' scope of practice, such as self-management support, collaboration, cultural competency and engagement (Carryer et al. 2010; Duprez et al. 2016; García-Salvador et al. 2021; Gerrish et al. 2007; Harris-Haywood et al. 2014; Jaruseviciene et al. 2019; Kerdmuang et al. 2014; Kosteniuk et al. 2017; Lemetti et al. 2021; Ruzafa-Martínez et al. 2020; Upton and Upton 2006). Only one generic SRQ was identified, measuring the actual scope of practice, covering 12 of the 20 dimensions extracted from all the SRQs (Braithwaite et al. 2022). This SRQ is currently measuring the largest number of dimensions of nursing scope of practice in primary care.

Figure 2. Overview of the number of SRQs measuring each dimension

Dimension	Number of SRQs
Administration and funding	1
Appropriate infrastructure	5
Connected care	5
Accessible care	2
Community adaptiveness and social accountability	8
Comprehensive team-based care with family physician leadership	1
Continuity of care	5
Patient- and family-partnered care	8
Measurement, continuous quality improvement and research	8
Training, education and continuing professional development	3
Professionalism	6
Leadership	4
Clinical practice	10
Communication	8
Quality assurance, evaluation and research	8
Collaboration and partnership	8
Attitude	3
Ethics	2
Cultural sensibility and equity	1
Knowledge	5

The initial dimensions from the PMH model and the CFPNA competency frameworks are shown in Table 3, available online at longwoods.com/content/27549. Analysis of the dimensions measured by the SRQ has enabled us to identify four other dimensions as emergent dimensions: attitude, ethics, cultural sensibility and equity, and knowledge (presented in Table 3). Attitudes toward evidence-based practice were assessed by the evidence-based practice questionnaire across all items of the SRQs, as it is known that healthcare professionals' attitudes are a significant factor in the adoption of new guidelines and practices (Upton and Upton 2006). They were also evaluated by the occupational health service competency scale, such as attitudes toward occupational health (Kerdmuang et al. 2014). Ethics were evaluated by the occupational health service competency scale, particularly in relation to professional ethics in occupational health service (Kerdmuang et al. 2014), while the investigation into nurses' care understanding of end-of-life questionnaire measured ethical and legal issues in terms of palliative care with patient and family (García-Salvador et al. 2021). The dimension of cultural sensibility and equity was also measured by the modified patient

assessment of chronic illness care (MPACIC) in terms of adaptiveness of chronic illness care according to the person's ethnicity, directing the patient to culturally appropriate services and awareness of cultural or ethnic issues (Carryer et al. 2010). This dimension was also assessed by the Primary Health Care Engagement (PHCE) scale, assessing if the professional's workplace understands equity issues and if it is organized to address health needs related to social determinants (Kosteniuk et al. 2017).

Conditions of Use of SRQs Measuring PC-RNs' Scope of Practice

The authors of the various SRQs have provided conditions for using their SRQ with the PC-RNs. The various conditions of use described are: to identify training needs and a lever for optimizing individual practice, to develop and evaluate educational programs, to assess the quality of services and monitor practice, to implement health policies and to evaluate organizational interventions and management.

Identifying Training Needs and a Lever for Optimizing Individual Practice

Several studies have highlighted that their SRQs identified both individual and collective training needs for PC-RNs, focusing specifically on competencies or clinical practices that require enhancement through training (Duprez et al. 2016; García-Salvador et al. 2021; Harris-Haywood et al. 2014; Kerdmuang et al. 2014; Lemetti et al. 2021; Ruzafa-Martínez et al. 2020; Upton and Upton 2006). These assessments of training needs are valuable for objectively identifying gaps and guiding the development of targeted training programs. In addition, such assessments contribute to the self-evaluation of PC-RNs' scope of practices on an individual level, supporting role optimization (Braithwaite et al. 2022).

Developing and Evaluating Educational Programs

Some authors have shown that SRQs can be valuable tools for designing effective educational programs for both individuals and groups and for assessing progress after the completion of educational programs (García-Salvador et al. 2021; Gerrish et al. 2007; Harris-Haywood et al. 2014; Kerdmuang et al. 2014; Ruzafa-Martínez et al. 2020; Upton and Upton 2006). These findings highlight the role of SRQs not only in creating targeted educational interventions but also in evaluating their effectiveness over time.

Assessing the Quality of Services and Monitoring Practice

Several studies highlight the potential of SRQs to provide a comprehensive view of various aspects of nursing scope of practice. For example, SRQs can define current collaborative practices (Jaruseviciene et al. 2019), chronic illness care management (Carryer et al. 2010) and the enactment scope of practice (Braithwaite et al. 2022).

It can also be useful for evaluating the quality of occupational health services and supporting quality assurance efforts (Kerdmuang et al. 2014). In addition, Lemetti et al. (2021) claim that their SRQs provide an overview of the current collaboration between the PC-RNs and RNs across different sectors, an argument also mentioned by Jaruseviciene et al. (2019), who highlighted how their SRQs facilitate a simple overview of teamwork dynamics.

Implementing Health Policies, Evaluating Organizational Interventions and Management

Some authors suggest that SRQs can be crucial for policy makers and decision makers in making informed decisions, assessing the impact of organizational changes and aiding management (Braithwaite et al. 2022; Gerrish et al. 2007; Kerdmuang et al. 2014; Kosteniuk et al. 2017; Ruzafa-Martínez et al. 2020). For instance, Gerrish et al.'s (2007) SRQ highlights how their SRQ identifies barriers and organizational factors negatively affecting the scope of practice, thus supporting the implementation of policies to address these issues. Braithwaite et al. (2022) added that the Actual Scope of Practice-Primary Care (ASCOP-PC) can be used by managers and decision makers to enhance the scope of practice and optimize the use of human resources. In addition, Kerdmuang et al. (2014) suggest that their SRQ serves as a criterion for evaluating the suitability of candidates for placement and advancement within management.

Discussion

The aim of our study was to identify SRQs that measure PC-RNs' scope of practice. It also aimed to list the dimensions assessed by these SRQs and evaluate the quality of the SRQs' development. Overall, we identified 12 SRQs from 2005 to 2022 that measured a total of 20 dimensions. We also found that the SRQs were used under various conditions, such as identifying training needs and as a lever for optimizing individual practice, developing and evaluating educational programs, assessing the quality of services and monitoring practice, implementing health policies and finally, evaluating organizational interventions and management. Following a critical appraisal using the COSMIN criteria, the analysis of the content validity in the development of the questionnaires revealed scores ranging from doubtful to inadequate. These results led us to the following observations: Current SRQs do not cover or evaluate all the dimensions in the present scope of practice of PC-RNs in Canada, there is a need to upgrade the guiding frameworks that support PC-RNs and the actual SRQs are used in a variety of conditions of use.

The Existing SRQs Do Not Adequately Assess the Current Practices of PC-RNs in Canada

Our study reveals that existing SRQs target only specific aspects of primary care nursing scope of practice, such as self-management, with the exception of Braithwaite et al.'s (2022) SRQ, which aims to measure the scope of practice enactment. However, even Braithwaite et al.'s (2022) SRQ fails to capture all the dimensions identified by the PMH model and the new dimensions emerging from this review, such as ethics and cultural sensibility. Although this SRQ assesses more dimensions than others, it still covers only 12 of the 20 identified, limiting its ability to evaluate the full scope of PC-RN practice. Moreover, an international article by Rycroft-Malone et al. (2004) pointed out that many tools fail to fully encompass the complexity of nurse roles, particularly in terms of ethical considerations and culturally responsive care, both of which are critical to global patient management in diverse populations.

We have also noted significant variability in the number of items across the SRQs, and little information has been reported on the acceptable completion time for PC-RNs. This lack of guidance reflects international concerns, as highlighted by Streiner et al. (2015), who argue that without clear guidelines on completion times and cognitive load, the practical usability of health measurement scales in clinical settings can be compromised. Furthermore, the quality of the SRQ development processes is generally low, suggesting that many may be unsuitable for evaluating PC-RNs' scope of practice in Canada. Our critical analysis highlights the need for greater involvement of primary care nurses throughout the SRQ development process to enhance content validity. This recommendation has been made by authors who developed tools in contexts other than primary care, acknowledging that inadequate participation can sometimes hinder the development of effective tools (Slater et al. 2017; Woo 2024). Finally, we noted a lack of user recommendations and standard operating procedures to support the use and interpretation of SRQs in clinical or organizational settings. This can lead to SRQs being completed incorrectly, results that do not reflect reality or results being misinterpreted, leading to decisions that fail to address clinical or organizational needs (DeVellis and Thorpe 2022; Terwee et al. 2018).

There Is a Need to Upgrade the Frameworks That Support PC-RNs

We note that current practice frameworks need improvement to better understand the phenomenon of practice from several angles according to the resulting dimensions. The two guiding frameworks are not exhaustive enough in terms of nursing scope of practice. The PMH framework, with its focus on family medicine, is designed to apply broadly to all professionals working in primary care clinics – whether they are physicians, PC-RNs, social workers, etc. (CFPC 2019). On the other hand, the CFPNA framework only includes the competencies that nurses

must master, which may not fully capture the complexity of the nursing scope of practice (Rycroft-Malone et al. 2004). We propose the creation of a comprehensive framework for PC-RNs that could significantly enhance the scope of practice evaluation, training and gaining a better understanding of the factors influencing the scope of practice in this field. Moreover, the integration of dimensions such as cultural sensitivity and equity corresponds to the objectives for improving health services as proposed by the quintuple aim integrating the health equity principle (Nundy et al. 2022). Developing a framework that takes the quintuple aim into account could potentially allow for a more effective evaluation of the primary care nursing scope of practice, which must incorporate principles of equity (Nundy et al. 2022; WHO n.d.).

SRQs Are Used in a Variety of Conditions

Our findings indicate that SRQs can be effectively applied at macro, meso and micro levels. At the macro level, some authors suggest that their SRQs can play a role in developing and evaluating health policies and human resources management (Braithwaite et al. 2022; Gerrish et al. 2007; Kerdmuang et al. 2014; Kosteniuk et al. 2017; Ruzafa-Martínez et al. 2020). As mentioned by Braithwaite et al. (2022), we believe that the use of a new generic SRQ would enable decision makers and managers to better support and ensure adequate infrastructures and to have a better overview of the effects of decision making, enabling us to promptly put elements in place to support good practice. Furthermore, SRQs could align with the principles of a learning health system by ensuring that nurses' perspectives and practices are incorporated into health policy development (Menear et al. 2019). Indeed, SRQs could support the continuous feedback loop of the learning health system (Menear et al. 2019); for example, data derived from the nursing scope of practice could inform clinical practices and strategic decision making at a higher level. At the meso level, we found that SRQs can be used to establish a portrait of current teamwork practice or to assess nurses' needs in terms of improving collective practice in a specific setting (Braithwaite et al. 2022; Carryer et al. 2010; Jaruseviciene et al. 2019; Kerdmuang et al. 2014; Kosteniuk et al. 2017; Ruzafa-Martínez et al. 2020). As mentioned by Kerdmuang et al. (2014), evaluating collective nursing practices through SRQs provides a summary of service quality, which supports continuous improvement efforts. SRQs could enable better management of PC-RNs' needs, which in turn could potentially improve their job satisfaction and well-being by addressing positive factors that contribute to their satisfaction, such as working with better-trained staff, having access to professional development opportunities, fostering healthy relationships among workers and, ultimately, recognizing and celebrating successes (Ayamolowo et al. 2013). We believe that creating a new SRQ with comprehensive questions about PC-RNs' scope of practice would help in providing a clearer picture of how nurses work in primary care settings. Finally, at the micro level, we

have observed that the authors report individual use of their SRQ, in particular, for self-assessment of nursing scope of practice as a lever for optimizing practice and skills development (Braithwaite et al. 2022; Kerdmuang et al. 2014). Carryer et al. (2010) suggest that a SRQ can be used to compare self-assessment of nursing practice with the patient's assessment to gain a better understanding of the phenomenon. However, it is essential to recognize that the applicability of SRQs can vary across cultural and organizational contexts. It is necessary to adapt SRQs to local realities by being flexible and adaptable to different health systems (Horton et al. 2007; Squires et al. 2013).

Limitation

The theoretical frameworks used to classify the dimensions originate from Canada, which may differ from the global context. On the other hand, to have an overall view of the dimensions, we left space for new dimensions to emerge that were not found in the two Canadian frameworks (CFPNA n. d.; CFPC 2019). Some of the SRQs included in the scoping review to assess PC-RNs' scope of practice were also implemented for nurses working in hospital settings (Duprez et al. 2016; Gerrish et al. 2007; Lemetti et al. 2021; Ruzafa-Martínez et al. 2020; Upton and Upton 2006). The use of the same SRQ may contribute to a lack of exhaustiveness in evaluating dimensions specific to primary care nursing practice. Although we followed the JBI methodology and did a double-blinded article selection and data extraction, no expert consultation was done to ensure better comprehension of the phenomenon (Aromataris et al. 2024). However, we have included several people (MJE, MEPo, MEPe, MM, PHRL, CG) with different areas of expertise throughout the article selection process, data analysis and article revision, which allows us to explore the phenomenon from different angles.

Implications for Nursing Leadership

Our observations fill a gap in the literature concerning knowledge of existing assessment questionnaires for PC-RNs worldwide. As variability in PC-RNs' scope of practice has been observed in several Canadian provinces as well as in other parts of the world (Cernuda Martínez et al. 2024; de Oliveira Toso et al. 2024; Dufour et al. 2023; Halcomb et al. 2016; Lukewich et al. 2014; Norful et al. 2017), SRQs could support the need for practice evaluation (Bernier et al. 2020; Girard et al. 2017; Lukewich et al. 2014; Poitras et al. 2018b). We have also observed that SRQs have several conditions of use and the potential to be used by decision makers, managers, care teams and nurses to support them in their everyday work. PC-RNs' scope of practice is distinct from RNs' scope of practice in the hospital setting, and the lack of current prelicensure training (Lukewich et al. 2024) reinforces the need to evaluate the current scope of practice to support skill improvement and knowledge development. The study also highlighted the variety of dimensions used to evaluate PC-RNs' scope of practice internationally

and the need to improve frameworks guiding PC-RNs according to new dimensions. A clear theoretical framework would potentially better integrate nurses' vision of practice in primary care and could facilitate managers in better clamping their decision making and interventions. On the other hand, this study's results demonstrate the need to develop an SRQ to evaluate the actual scope of practice in a Canadian context according to Canadian guidelines and literature-based dimensions such as ethics and cultural sensitivity. Developing a new SRQ could also allow for a better valorization of practice by standardizing the nursing role, which could help better distinguish the scope of practice across primary care settings. We believe that the development of a new SRQ, including a wide range of dimensions, could be highly relevant to decision makers, managers, care teams, clinicians and, ultimately, patients.

Conclusion

Our study has provided evidence on existing SRQs and their dimensions to support the evaluation of the nursing scope of practice in primary care clinics. The scoping review has demonstrated a gap in a generic measurement SRQ that measures the scope of practice. Further studies will be necessary to develop a generic SRQ evaluating the practice of Canadian PC-RNs to assess the scope of practice according to Canadian guidelines and the dimensions that have emerged inductively in the literature.

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