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Issue Note

Mentorship of Early-, Mid- and Late-Career Nurses, as a Retention Measure: Rapid review of the evidence

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Executive Summary

Turnover rates among nurses working in acute settings in Canada are high and continue to have important consequences for the nursing profession and for the health care system.^{1,2} A 2022 survey in the United States revealed that 71% of hospital nurses with more than 15 years of experience were thinking of leaving the hospital setting soon.³

This is consistent with other studies on nurses' 'intent to leave' reporting for instance in Canada that 59% of early-career nurses, 56% of mid-career nurses and 20% of late-career nurses were considering leaving their current position within the next year.⁴ Further, 19% of nurses in this study were contemplating leaving the nursing profession altogether.⁴

Most recently, the COVID-19 pandemic has had a significant impact on the nursing workforce and has exacerbated retention issues.⁴ This ongoing issue necessitates the consideration of different retention measures including mentorship programs for early-, mid-, and late-career nurses.^{2,4-7} This report presents a rapid review of available published evidence on whether mentorship programs are effective strategies for retention of nurses at different career stages. The question we aimed to answer is as follows:

What is the evidence on the effectiveness of nurse mentorship programs at reducing turnover and increasing retention rates in early, mid, and late-career nurses, and what are the effective and ineffective features of these programs?

We gathered evidence on the benefits and challenges of mentorship for hospital nurses engaged in formal and informal mentoring programs. Most studies reviewed indicated that mentorship programs promote intermediate outcomes such as nursing skills, confidence and job satisfaction, which can increase retention rates among all nurses but especially early-career nurses.^{8,9} Intermediate outcomes are typically on the causal pathway to the final outcome.¹⁰

Key findings on the effectiveness of mentorship programs across the three nursing categories of early-, mid- and late-career are as follows:

- Mentoring nurses promotes retention and professional as well as personal development across the career span.
- Establishing nurse mentorship programs in the hospital setting is considered especially crucial in attracting and retaining novices.
- Mentoring programs have benefits when reciprocal relationships are established between mentors, mentees, hospital administrators and leaders.
- Effective mentorship programs are facilitated by administrative structures, adequate resources, and high-quality support offered by hospitals to participating mentors and mentees.
- Ineffective features of mentorship programs include a duration shorter than six months, inadequate

mentor training, and lack of engagement of either the mentor or the mentee.

- There is no standardized structure for mentorship programs indicating that content rather than the structure is a determinant of the effectiveness of mentorship programs.
- With regard to implementing mentorship programs, there is a lack of research on how to overcome implementation obstacles. This gap in the literature is an area for future studies to ensure success and scaling-up of mentorship programs.

Limitations

There are a number of important limitations related to the methods and findings reported in this rapid review:

- Relevant evidence from the existing published literature may have been missed given that we completed the search and this report within a short timeframe.
- We did not perform a quality appraisal of the evidence due to time constraints, but also due to our reliance on higher-level evidence (e.g., systematic reviews).
- We consulted only English-language resources.
- We drew only on OECD countries as comparators.

Future Research and Knowledge Gaps

Further research will be helpful to understanding issues related to the structure, content, implementation and impact of nurse mentorship initiatives. Research priorities highlighted in this report include:

- Research and evaluations that examine the impact of mentorship on particular groups and subgroups of nurses such as mid-and-late career nurses, specific ethnic subgroups of nurses, and hospital nurses working in remote and northern regions. Most of the papers included in this review focused on early-career nurses indicating a gap in the literature on the benefits of such initiatives for mid and late career nurses. Furthermore, with regard to ethnic subgroups of nurses, only one review looked at mentorship program for internationally educated nurses. Lastly, no review looked at mentorship programs in remote and northern hospitals where human resources are especially scarce.
- Exploring the dynamics of the mentoring process through triangulation methods involving both qualitative and quantitative evaluations. Dynamics of the mentoring process involve elements such as communication, relational aspects, the format, and the delivery mode of mentoring.
- More research is needed to compare the effectiveness of group versus individual mentorship.
- There is a need for common reporting and evaluation approaches to enable comparisons of findings across studies, and to support the aggregation of results regarding the effectiveness of mentorship programs.
- Examination is needed on the return on investment of mentorship programs to demonstrate to funders, policy, and decision makers the importance and value of such transition-to- practice (TTP) programs.

- There is a need for the development of better metrics for the study and reporting of data related to nursing retention and turnover in Canada.

Introduction

The COVID-19 pandemic has had a significant impact on the nursing workforce, exposing and exacerbating longstanding challenges related to the retention of nursing staff across all stages of their careers.⁴ Even before the pandemic, consistently high turnover rates in the Canadian nursing workforce were an issue and health system leaders responded with innovative strategies and interventions. The World Health Organization (WHO) states that “maintaining a stable, highly qualified nursing workforce is a global aspiration, but recruiting and retaining sufficient registered nurses to ensure safety and quality care remains a global problem”.¹¹

Turnover rates are difficult to quantify in Canada because healthcare workforce data are not systematically collected.⁹ As a result, we often rely on turnover intention as a validated proxy for the actual percentage of nurses exiting the workforce.¹² According to a 2022 report by the Canadian Federation of Nurses Union, intent to leave is alarming in Canada, with 59% of early-career nurses, 56% of mid-career nurses and 20% of late-career nurses reporting they were considering leaving their current position within the next year.⁴ Further, 19% of nurses are contemplating leaving the nursing profession altogether.⁴ Available provincial turnover data for Ontario indicates that from 2021 to 2022, the nursing turnover rate was 14.5%, of which 10.4% was attributed to resignation and 2.5% to retirement, and 1.5% was classified under other reasons.

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Although turnover rates are high across all categories of nurses (early-, mid-, and late-career nurses), they are particularly high among new nurses.⁴ The top factors driving turnover rates are poor working conditions, weak interprofessional collaboration, a lack of resources, and job dissatisfaction.^{7,14,15} Turnover is very costly for hospitals. For example, the cost of replacing a nurse in Canada has been estimated at \$25,000 to \$67,000 in 2019.¹⁶

A strategy used in Canada and in other countries to reduce turnover rates and increase retention rates has been to implement mentorship programs in hospitals that employ a large number of nurses.¹⁷ In 2016, the Government of Canada issued a report on age-friendly workplaces and promoting older worker participation.¹⁸ In this report, mentorship programs were recommended for both private and public sector organizations and were considered a cost-effective way to ensure corporate history is transferred to the next generation of leaders.¹⁸ Although the report does not focus solely on nurses, the recommendations are relevant to the nursing profession.

In this rapid review, we sought to answer the following question:

What is the evidence on the effectiveness of nurse mentorship programs with regards

to reducing turnover rates and increasing retention rates in early-, mid-, and late-career nurses working in acute settings, and what are the effective and ineffective features of these programs?

Methods

We searched six databases (MedLine, Scopus, PubMed, CINHL, Embase, Web of Science) for evidence pertaining to mentorship programs and nursing retention. Other sources were searched, such as Epistemonikos, TRIP, CADTH-Evidence Bundles, Centre for review and dissemination, and the Agency for Healthcare Research & Quality EPC Evidence-based Reports. We also screened documents and reports on Canadian Government websites and agencies, including Statistics Canada and the Public Health Agency of Canada. We also searched selected journals, such as the International Journal of Nursing Education, International Journal of Nursing Studies, Canadian Journal of Nursing Research, Journal of Nursing Management, Journal of Clinical Nursing. Our grey literature search was limited to websites.

The inclusion criteria and search terms can be found in **Appendices 1 and 2** respectively, which also include details on the types of reviews, why we focused on acute settings like hospitals, and why we chose the 2010 to 2022 publication year timeframe. The key terms used in the initial search were words that describe mentoring initiatives for early-, mid- and late-career nurses in relation to retention (e.g., nursing, nurse, mentorship program, retention, and turnover).

Results

We reviewed titles and abstracts according to the inclusion criteria. Our initial screening yielded 59 records out of a total of 860 results. Secondary screening performed by another reviewer reduced the total of included records to 42. For the Prisma flow diagram, see **Appendix 3**. All reviews on mentorship programs for early-, mid-, and late-career nurses were written in English and conducted in OECD countries, with the United States, United Kingdom, Australia, Sweden, and Canada most frequently cited. In terms of methodology, 12 reviews have quantitative designs while five have a qualitative design. Mixed methods were used in individual studies covered by some reviews. For more details on the methodology of the different reviews, see **Appendix 4**. Although we did not perform a formal quality appraisal, we note that 11 of the 42 records included reviews in which quality appraisal was conducted in the original studies examined.

The care setting in all the reviews and other papers was hospitals. Twenty-three reviews focused on early-career nurses; none of the reviews solely focused on mid-career nurses; 6 focused on mid- and late-career nurses; and 15 focused on early- and late-career nurses at once; and one review looked at internationally educated nurses.

Distinction Between Mentors and Preceptors

Our results revealed a distinction in the literature between “mentors” and “preceptors.”

Definition of Mentoring

The concept of mentoring is not new to nursing and over the years many influential scholars have published on mentoring.^{19–23} As such, no single or common definition of mentoring has been established, but rather, a series of common elements have been put forward. For this reason, we used the following definition for the purpose of this brief:

“Mentoring in nursing is a teaching-learning process acquired through personal experience within a one-to-one, reciprocal, career development relationship between two individuals diverse in age, personality, life cycle, professional status, and/or credentials. The nurse dyad relies on the relationship in large measure for a period of several years for professional outcomes, such as research and scholarship; an expanded knowledge and practice base; affirmative action; and/ or career progression”.¹⁹ In recent years, other mentoring models have emerged such as group mentoring.²⁴

This definition is the most appropriate because it considers the emotional commitment by both parties in that dyad (mentor and mentee), as well as advancement and general progress, as important factors in mentoring.^{20–22} Although mentoring usually follows a one-to-one model, in recent years, there has been a shift towards group mentoring. In this brief, we consider both mentoring models.²⁵

Definition of Preceptorship

Preceptorship implies a short-term relationship, a more superficial degree of closeness, and lower seniority of the preceptor.⁶ The preceptor “assists a newly hired nurse through an orientation process that is a time-limited, formal job training process to produce a competent employee with the skill and knowledge of philosophies, goals, policies and procedures, expectations, physical environment, and services of a particular work”.²⁶

Distinction Between Mentorship and Preceptorship

Although both terms are often used interchangeably, many authors highlight the distinction between mentorship and preceptorship.⁶ In the context of this rapid review, and as recommended by many academics, we did not use mentorship and preceptorship interchangeably.

Definition of Retention and Turnover

Reviewed studies examined either ‘retention’ or ‘turnover’ or both as outcome measures. Retention is often defined as the rate at which employees stay within an organization over a period of time, whereas turnover refers to nursing staff leaving the organization, either voluntarily or involuntarily.^{27,28} Most studies do not provide details on how they calculated outcome variables like retention and turnover rates.²⁹

We stratified our results according to the three nursing categories: early-, mid-, and late-career nurses. First, we discuss the evidence on how mentoring programs improve the retention of early-career nurses and identify different mentorship models conducive to nursing retention. Second, we discuss the limited evidence on mentorship for mid-career nurses. Third, we provide evidence on the effectiveness of mentoring programs for retaining mid- and late-career nurses. Fourth, our results revealed a cross-cutting consideration related to the implications of cultural diversity; we discuss this in the context of mentoring as it pertains to internationally educated nurses (IEN).

1. Effects of Mentorship on Retaining Early-Career Nurses

An important body of literature indicates that mentorship programs can improve retention rates of early-career nurses (ECNs). In the following section we discuss how mentorship programs for ECNs can be designed to promote their retention. First, we describe ECNs and the aim of mentorship programs. Second, based on two theories and an example of a mentorship program, we discuss four elements necessary for the design of successful mentorship programs promoting ECNs retention. Third, we discuss different mentorship models in terms of their capacity to retain ECNs.

The term ECN refers to new or recent graduate nurses but, studies use different definitions to describe this group of nurses. Some reviews associate ECNs with age groups that overlap e.g. 18-35 years old and 21-25 years old.^{6,30,31} Other reviews defined ECNs as new graduate nurses with 0-3 years of experience.^{5,17,27,32} For most ECNs, the initial stage of a first formal nursing position following completion of their formal education, known as 'transition to practice', is a challenging period during which they experience stress and a reality shock.³³ The lack of support for ECNs during this crucial period delays their professional development and leads to high turnover rates.^{8,33}

According to a systematic review, the primary aim of mentorship programs is to reduce high turnover rates among nurses.³⁴ The implementation of mentorship programs is a crucial strategy adopted in institutions like hospitals to retain new nurses.³⁴ **Appendix 5** provides a snapshot of mentoring programs studied in three different systematic reviews highlighting their potential at reducing turnover rates or increasing retention rates. Studies have shown that the first three years of nursing practice are a critical time of turnover for ECNs and that early supervision in their transition-to-practice via mentoring programs can help retain them.³⁵ One international review argued for formal mentoring programs to be mandated in hospitals.³⁶

Mentoring is a transition-to-practice (TTP) intervention that can take place on its own or in combination with other TTP interventions such as externships, internships, residency programs and preceptorships.³⁷ TTP programs have been shown to improve nurse retention and reduce costs and are implemented as a support strategy to ease the transition from nursing student to licensed nurse.^{33,37} Despite the variability in the description of TTPs, common features highlighted in the literature include a defined resource person, peer support opportunities, orientation, and mentorship.^{33,38} Many studies underscored that having a resource

person is central to the transition of ECNs.^{27,32,37,38}

Frameworks and Design Elements for Successful Mentorship Programs to Support ECN Retention

Mentorship is particularly important for retaining ECNs working in acute settings because those employed in hospitals have reported a lack of support in comparison to those working in other clinical settings.³⁰ Mentorship programs have proven to be an effective strategy for retaining ECNs, and hospitals should therefore consider prioritizing and strengthening such programs.³⁰ Nonetheless, designing a mentorship program is challenging for hospitals because of the lack of information on “how to” mentor based on evidence, which adds to the complexity of such interventions.^{34,39}

Two theoretical frameworks related to mentorship have been proposed to provide guidance for implementing programs aiming to retain ECNs^{40,41}:

The first theoretical framework is *Benner’s novice to expert model*. Several articles refer to this framework and highlight its contribution to the literature on novice nurses.^{7,24,34,37,38,42,43} This model posits that nurses gain knowledge, competence, confidence, and comfort in accomplishing nursing tasks along a ‘novice to expert’ continuum.⁴⁰ According to this framework, mentoring relationships are key to a nurse’s transition-to-practice success, and are linked to professionalism and quality standards.

A second theoretical framework was developed by the Australian Government in 2005.⁴¹ This framework targeted Australian nurses in general practice and was developed to enhance their capacity to contribute to general practice outcomes like improved patient quality of care.⁴¹ Four themes were identified as impacting the development of a mentoring framework for nurses in general practice: (i) choice, (ii) relationships, (iii) structures, and (iv) resources.⁴¹

In addition to the two frameworks described above (Benner’s model and the Australian framework), experience drawn from mentorship programs that have been implemented hold valuable insights. For example, the Indiana Mentorship Program, which was aimed at nurses working in critical care in a large Indiana hospital, provides insight on best practices to yield high retention rates.⁴⁰ The implementation of this mentorship program for newly hired nurses was informed by Benner’s framework and by the AMSN (*Academy of Medical Surgical Nurses Mentoring Program*).⁴⁰ The results were positive, as the retention rate of nurses with a mentor was 91% compared to 61% for nurses without such support.⁴⁰ Two of the program’s objectives are consistent with the themes identified in this review and are particularly relevant to the design of mentorship programs. These include the development of supportive and encouraging relationships, and guidance of nurses in their professional, personal, and interpersonal growth.

All things considered, based on evidence from the reviews included in this report, we suggest that mentoring

programs aiming to retain ECNs might consider combining the two objectives of the Indiana mentoring program (“development of supportive and encouraging relationships” and “guidance of nurses in their professional, personal, and interpersonal growth”) with the two elements of the Australian framework (“structures” and “resources”). These four components include key aspects of all four themes of the Australian framework, including choice and relationships.

In the following section, we provide more details about how the integration of these four components increase the retention of ECNs in the context of mentorship programs.

Component 1: Development of supportive and encouraging relationships for ECNs

The development and nurturing of satisfactory mentor-mentee relationships is a determining factor in the success of an effective mentoring program.²⁴ Mentor-mentee relationships can be initiated in different ways, with either the mentee choosing or being assigned a mentor.³⁸ Many authors stressed that appropriate mentor and mentee matching, in terms of personality and experience, is important and influences the mentoring experience.^{24,44} Mentor selection varied across studies, with some reviews advocating for ECNs to be offered a choice of mentoring context and roles, and others supporting a more structured and objective approach to matching.⁴⁵ Specifically, some reviews described programs where new graduate nurses selected their mentor, while in others they were matched with qualified mentors or were assigned to a specific mentor, or their preceptor became their mentor.³⁸ Other reviews suggested that mentees should select their mentors from a pool of candidates and that both parties should be from different units but have similar clinical backgrounds and have a non-evaluative relationship.^{24,45} One review suggested that mentor-mentee matching should be based on a similar shift schedule or unit assignment and that mutual attraction and common values should exist.²⁴ On other occasions, hospital departments selected mentors for ECNs based on different criteria such as experience (nurses with two to ten years of clinical experience), and status (volunteer retired nurses).⁷ Debate continues on whether rigorous mentor-mentee matching yields better mentorship outcomes for ECNs.^{24,44}

A critical factor in mentorship programs is the consideration of cultural diversity in the current nursing workforce.⁴⁶ Nurses who identify as visible minorities can benefit from being matched with mentors with similar cultural and linguistic backgrounds as it may improve their feelings of acceptance.⁴⁶ In turn, feeling accepted can ease the transition into practice which can indirectly improve retention rates.

Another crucial element to the development of a supportive and encouraging mentor-mentee relationship is trust. Trust was found to be the foundation for mentee learning.⁴² It can be fostered through frequency of contact between mentor and mentee and reviews report varied optimal frequencies.^{6,8,42} Most reviews found that regular meetings between mentors and mentees are important because they allow regular feedback, support, guidance, and reduce stress levels experienced by mentees.^{8,24,38}

One review maintained that three requirements were conducive to a positive mentoring relationship: attraction, action, and effect.⁴³ Similarly, another review argued that reciprocity between mentors and mentees is necessary to achieve positive mentorship outcomes.¹⁷ Other literature supports that nurse mentors should possess key attributes and skills to promote positive mentor-mentee relationships.³⁶ In essence, mentors must be active listeners with strong communication and relationship-building skills to understand and address mentees' needs and provide them with valuable insight and feedback.¹⁷ Finally, one of the most important attributes of nurse mentors is their willingness to stay committed to the success of the nurse mentorship program.⁴⁷

Component 2: Guidance of ECNs in their professional, personal, and interpersonal growth

As supported by many reviews, mentorship programs promote professional and personal development.^{34,45} For nurses taking part in a mentoring program, relationships within the mentoring framework should be examined to accommodate each nurse's learning needs.⁴⁵ This can more easily be achieved when mentors are adequately trained.^{6,24} Mentor training was described to take different formats and lengths such as a four-hour educational orientation, 16-hour mentor certificate training, and formal training could last between four to eight hours aimed at improving competencies.^{17,24} Despite the variations in length, training sessions have proven to reduce the turnover rates of participating mentees.²⁴ The training can also provide mentors with a range of communication, problem solving, and teaching skills, by allowing them to share their knowledge with mentees in a way that promotes their own professional and personal development.^{27,48} This benefit to mentors encourages mentors to value the learning process even more and guide mentees into the culture of the nursing unit.^{15,49}

Many reviews highlighted that mentorship programs enable ECNs to acquire a range of skills and competencies that lead to greater self-confidence, improved management of stress and coping mechanisms, which generally translate into greater job satisfaction.^{8,9} Mentors are an important source of emotional and psychological support and they help mentees navigate stressful situations which contributes to the personal and interpersonal growth of ECNs.^{8,26,28} One review suggests that "Personal factors such as self-confidence and self-efficacy are important attributes new nurses must possess during the initial years of their practice to remain in their field of practice".⁵ Mentorship programs that focus on intermediate outcomes such as reduced stress, resiliency, and job satisfaction have an impact on the retention rates of ECNs.^{1,11,50} Higher levels of job satisfaction are correlated with intent to stay and generally result in an increase of retention rates.^{20,24,47}

Component 3: Structures of mentorship programs to improve ECN retention

The way a mentorship program is structured also impacts its ability to retain ECNs. An important element about the structure of mentorship programs is their length.⁶ Most reviews indicated that mentees benefit from longer mentorship programs lasting between six to 24 months.^{6,51} One review emphasized that

mentoring initiatives should last beyond the one-year mark since many nurses leave their position within the first three years of practice.⁵¹ Longer mentorship programs allow for trust to be built between mentors and mentees, for the relationship to strengthen, and for ECNs to develop relationships with other nurses on the unit.^{6,38} In one review, the development of a standardized protocol was suggested, with timeframes and milestones to help guide the progression of mentoring.³⁴

More broadly, reciprocity between the hospital administration and the mentors-mentees is imperative for mentorship programs to be effective.¹⁷ Mentoring is an important initiative for hospitals to implement because institutionally, staff support is a key measure to retaining nurses.⁵² Organizations need to view mentoring as a necessary strategy to decrease frustration, decrease feelings of isolation, and retain highly qualified nurses.⁴⁷ Mentorship programs must be flexible to some extent.⁴⁵ This can be achieved by combining or adding a mentoring component to other programs, like preceptorships, and residency programs.²⁴

Mentorship programs can have various features that allow them to be flexible and accommodate mentees. Tele-mentoring is an example of this and is defined as “the exchange of knowledge among participants who learn from one another in an online environment” is another medium through which mentoring can occur.⁵³ It has many advantages and overcomes obstacles such as time constraints and geographical boundaries.⁵³ Virtual mentoring has been found to be useful during the COVID-19 pandemic when public health protection measures were in place.

Component 4: Resources that enable mentorship programs for ECNs

Mentorship programs require organizational support and adequate allocation of resources such as time, technology, and flexible communication methods to ensure the coordination of information and advice.⁴⁵ Effective interventions to retain frontline nurses are typically multifaceted and include situational, facility, and unit staff retention.⁵⁴ Mentorship programs in hospitals influence the workplace culture and can enhance organizational culture, image, and capacity as well make people feel valued through recognition of their hard work.⁴⁵ Mentorship programs promote a learning, collaborative, and teamwork atmosphere enabling a positive and supportive workplace culture.^{27,47,52} Since unsupportive work environments contributes to job related stress, burnout, and turnover among nurses, practical strategies like mentoring that adequately educate, support, and retain nurses are crucial for universal health coverage.⁴² Nurses who benefit from robust mentoring cultures, such as those retained through transition into practice/residency programs, are engaged and better develop within the work force, creating an improved work environment for all.³⁹

On a larger scale, mentorship programs impact institutional operations and performance. In hospitals, the retention of nursing staff influences patient safety, the quality of care, and reduces human resources costs.

⁶ Finally, expanding the resources of nurse managers and departments is necessary to fully reap the

benefits of mentorship programs.⁵³ In terms of financial resources, many reviews have found that mentorship programs are cost-efficient.³² Specifically they found that mentorship programs reduce costs associated with ongoing recruitment and indirect costs like job satisfaction, especially if the program increases the retention of ECNs.³² For hospitals concerned with the financial burden of such programs, group mentorship may be an alternative.²⁷ Additionally, tele-mentoring may be another way of offsetting the cost of formal in-person mentoring and overcoming access barriers and increase participation in mentoring programs.^{4,47,53,55} Since retention and resignation rates worsen after 12-months of employment, robust and rigorous studies are essential to establish the long-term cost-effectiveness of mentoring program.³⁴ It is increasingly apparent that “outcomes from mentoring programs rely on structures, resources, quality of support, and engagement”.⁷

Transition-to-Practice (TTP) Mentorship Models for Improving Retention of ECNs

There are several types of mentoring models but there is no consensus as to which model is best. Rather, there are advantages and disadvantages to each model.³⁴ In this section we discuss these different mentorship models based on their capacity to influence the retention of ECNs and briefly discuss the implications of mentorship programs in the context of the COVID-19 pandemic.

The most cited TTPs impacting the retention of ECNs were mentorship programs, residency programs, preceptorships, and internships. These can take various formats and models of mentoring such as one-to-one mentoring, informal and formal mentoring, virtual mentorship, peer-mentorship, and group mentorship.

Several reviews have indicated that mentorship programs are crucial to the professional development of ECNs and help retain them in the clinical setting.^{6,7,17,44,49,56} Mentors play a central role in facilitating ECNs' adjustment to clinical practice and influence how professional behaviors are role-modeled.³⁷ While mentoring is an ideal approach to improve nurse engagement, satisfaction, and practice, it is thought that the reason it is rarely taught in nursing schools in Canada is because it is a complex and misunderstood practice.^{43,57} Mentoring is an effective TTP intervention positively affecting competence, job satisfaction and intent to stay of ECNs.³⁴ The clinical education and personal insight of mentors are passed on to mentees and result in improved patient care, safety and understanding.⁵⁷

One-on-one versus group mentorship model

Although one-to-one mentoring is common, other mentorship models have emerged and are gaining popularity.^{6,7,36,43,50} For instance, group mentorship has gained some recognition in recent years. One review compared one-to-one mentorship with group mentorship and found that the latter resulted in a positive transition experience for new graduates and increased their intent to stay 12 months after the program.²⁷ Another review maintained that group mentoring enhances the effectiveness of transition-to-practice.³⁴

Informal vs. formal mentorship model

Mentoring can be formal or informal. In Canada, formal and informal mentoring programs are offered separately in TPP strategies.³⁴ However, some authors argued that formal programs are better, especially when TTP mentors are partnered with TTP participants to strengthen the mentor-mentee connection.⁴⁹ In informal mentoring programs, the relationship can be initiated by either a mentor or a mentee, and this could involve random matching between mentor-mentee.^{24,48} Informal programs allow for a more natural and long-term relationship to develop.¹⁵ Although one review noted that informal mentoring lacks the organization's commitment, which is key for retaining nurses, others found no significant difference between formal and informal mentoring models.^{17,24} Nonetheless, one review argued for the promotion of formal programs to ensure equity of access for all nurses and to assist with workforce issues.⁴⁵ Conversely, in formal mentorship programs, official training is provided, and formal goals and program activities are established.^{24,34} Some believe that formal mentoring offers more structure, and that mentor-mentee are rigorously matched, thus reducing potential conflict.^{5,24} As such, hospitals usually implement formal mentoring programs where an experienced and knowledgeable nurse is assigned to a junior nurse and is compensated.⁴⁸

Within formal mentoring programs, some reviews identified key stages that could be followed.^{6,43} One review looked at studies where mentorship programs involved the following stages: (i) asking recently registered nurses to observe, respond, demonstrate their skills, and practice and prepare for lessons before class; (ii) administering examinations; (iii) implementing multi-dimensional teaching strategies including discussions, provision of feedback, and reflection; and (iv) developing interpersonal relationships and problem-solving skills among recently registered nurses.⁶ In that review, four out of five studies showed an improvement in intermediate outcomes related to ECN retention.⁶ Among the papers focusing on ECNs, 12 out of 23 described and supported formal mentorship programs, while five focused and supported informal mentorship programs, another four described the benefits of each model, and the remaining two papers were neutral concerning each model with regards to improving retention rates.

One review highlighted five mentoring models developed and adopted within the nursing profession: little sister big sister, traditional, reciprocal, staged, and student peer mentorship. Among these models, two show promising features in retaining nurses.⁴³ First, the staged model, driven by organizational and professional needs, adapts according to mentees' goals. It was initially developed to address the nursing shortage hence its relevance in the context of nurse retention.⁴³ Second, the student peer mentorship model, based on student-centered education, was developed to support nursing students in the clinical setting in a reciprocal, non-hierarchical manner, where both participants contribute to the relationship.⁴³ Student peer mentorship programs are beneficial for both the mentors and the mentees and promote the retention of ECNs.⁴³ We note that the Registered Nurses Association of Ontario (RNAO) supports the development of micro-level leadership and mentorship by and for nurses.³⁰ Some reviews have argued for mentorship programs to be offered during nursing school because it benefits the profession.^{1,43} For

example, McGill University launched a peer mentorship program to help nursing students transition into clinical practice. ¹ One main objective of the program was to help build resiliency, a key factor in promoting nursing retention and reducing attrition rates among ECNs. ^{1,33}

Other programs that include mentoring components for ECNs

Residency programs.

Residency programs are formal structured programs or curriculum focused on role transition, workplace acculturation, and retention. ^{33,39} Residency programs with mentoring components can yield many benefits for ECNs. ⁴⁴ Some reviews reported that such TTPs allow for a mentoring relationship to emerge, for structured teaching and for clinical immersion to occur. ⁴⁴ Survey results from a mentorship initiative in the context of a six-month registered nurse residency program revealed that 50% of ECNs felt that their mentors moderated their stress, which is an intermediate outcome of nurse retention. ⁸ For this reason, it is important to develop structured evidenced-based residency programs to provide sustained developmental support of ECNs since they appear crucial in the retention and satisfaction of new nurses. ³⁷

It is noted that the RNAO supports the use of NRPs (nurse residency programs) led by preceptors and mentors because they have the potential of retaining nurses. ⁴ In Ontario, the Nursing Graduate Guarantee Program consist of a 12-week TTP accompanied by mentorship. ⁴ In the United States, NRPs offer formal mentoring jointly and informal mentoring extending beyond the NRP might be implemented to allow ECNs to keep transitioning smoothly once the NRP is over. ³⁴ One author emphasized that “formal and informal mentoring programs and initiatives should begin where nurse residency concludes”. ³⁹ “The research is unanimous that formal mentoring reduces novice nurse turnover in the first year of employment by significant margins. ⁷ Formal mentoring allows hospitals to benefit from a stable nursing workforce with better employee morale among both novice nurse and experienced nurse mentors”. ⁷ One review highlighted that accreditation of TTP such as residency programs lead to better regulation and quality that can increase the likelihood of ECN retention. ³³ To leverage the maximum benefits of mentorship programs, hospitals could consider accrediting them.

Preceptorships and internships programs.

Preceptorships and internships programs are used interchangeably and are orientation programs that occur after graduation. ⁵⁴ When these programs take place before mentorship programs or involve a mentoring component, it is highly beneficial for ECNs. ^{11,37,44} One review found that retention increased by 15% from interventions combining preceptorship and mentorship. Further, multifaceted interventions which combine clinical skill development with those that focus on socialization such as mentoring appear to be effective in retaining nurses. ^{44,58}

COVID-19 pandemic and mentorship programs

The COVID-19 pandemic impacted the availability of mentorship programs and how they were delivered.^{28,50} Public health restrictions shifted in-person mentoring to virtual modes.^{50,59} The pandemic put an enormous strain on hospital nurses, many of whom were burnout, overworked, and stressed, which limited the availability of senior nurses available to mentor junior nurses. A review of a mentorship program implemented in a hospital in Midwestern United States found that despite these demanding working conditions, survey results from an online mentorship program showed that job satisfaction increased but intention to stay was lower after three months in comparison to previous results.⁵⁰ Nonetheless, tele-mentoring appears to be a good alternative to in-person mentoring and there is support for further implementation.

2. Effects of Mentorship on Retaining Mid-Career Nurses

Our search did not yield any literature reviews looking at mentorship initiatives specifically for mid-career nurses. This category of nurses was described as belonging to the 35 to 50-year-old age group and also characterized as a category associated with being adaptable, collaborative, and eager to learn.^{31,60,61} Mentorship initiatives promoting retention of this group seemed to be lumped together with those recommended for late-career nurses without regard for their different needs and different career stages. This gap in the literature is a potential focus for future research. The literature indicates that few studies have focused on the needs of mid-career nurses,⁶⁰ despite research noting that compared to early- and late-career nurses, mid-career nurses have lower job satisfaction rates.⁶¹ This is concerning since mid-career nurses greatly contribute to the clinical setting due to their good working habits, their ability to mentor new nurses and the career longevity ahead of them.⁶¹ Further, exploring retention measures for mid-career nurses is important because they are a unique group at the intersection of two very different generations and their reasons for leaving acute care differ from those in early- and late-career nurses.⁶²

3. Effects of Mentorship on Retaining Both Mid- and Late-Career Nurses

Mentoring to support retention of mid- and late-career nurses

As stated above, mid- and late-career nurses have been lumped together in studies of mentorship initiatives. High turnover rates of mid- and late-career nurses are concerning, resulting in the loss of deep clinical experience and increased staffing shortages.⁵³

Late-career nurses were identified as Baby Boomers (50 years old and over) and described as seeking teamwork-oriented environments and valuing leadership and mentoring positions for continued workplace

learning.³¹ It is argued that mentoring should not be limited to early career nurses such as new graduate nurses.³⁰ In fact, findings indicate that some late-career nurses would like to be mentors for ECNs and internationally educated nurses (IENs).³⁰ In addition, with regard to advanced practice nurses, findings also reveal that most of them would like to be mentored.³⁰ The retention of senior nurses in acute settings can be achieved by mobilizing different interventions including mentoring.²

One review suggested that mentoring should be viewed as a relationship between two people with the specific purpose of one assisting the other to grow and develop and to increase their role effectiveness.⁴² As such, many reviews underscored that all nurses need support, especially when transitioning into practice or into a new role, regardless of their level of expertise or career stage.^{30,58,63} One author described mentoring as a career developmental phenomenon that begins at one year of experience and continues throughout the career of a nurse until retirement.³⁹ Furthermore, “mentoring can be used to develop horizontally within or across a role and vertically into more advanced roles”.³⁹

When mid- and late-career nurses take on mentoring roles, they help retain junior nurses in acute settings like hospitals.^{51,53,64,65} Since several factors influence the retention of experienced nurses, interventions must be multipronged and incorporate leadership opportunities, flexible scheduling, financial compensation, and health benefits.² When collective agreements fail to provide guidelines regarding the implementation of practices like mentorship to sustain the nursing workforce, hospitals can implement them without fear of any violation.⁶⁶

In this section, we highlight the importance of expanding mentorship opportunities for mid- and late-career nurses, discuss the benefits for mid- and late-career nurses to take on mentoring roles, and present the evidence on mentorship programs for advanced practice nurses.

Increasing mentoring opportunities to support retention of mid- and late-career nurses

Mentorship opportunities are especially important in today’s context given the ongoing nursing shortage, the aging workforce, and nurses contemplating retirement.^{32,67} To maximize the retention of nurses across all specialties, mentoring opportunities must be made readily available to senior nurses and be compatible with their schedule as well as promote work-life balance.³¹ We note that the RNAO’s mission to make mentorship opportunities available to all nurses aligns with this. Other provinces like Prince Edward Island have implemented retention strategies to retain nurses considering retirement.⁶⁶ Alberta developed seven retention and recruitment strategies to address the nursing shortage, two of which are pre-retirement initiatives.⁶⁸ Ontario and Nova Scotia have implemented the 80/20 Mid- and Late-Career Nurse Mentorship Program.^{4,69} There are various ways of increasing the availability of mentoring opportunities for experienced mid- and late-career nurses.⁶⁷ We highlight the three main strategies in the following sections: flexible working conditions, tele-mentoring, and institutional support and partnerships.

Flexible working conditions to enable mentoring and support retention of mid- and late-career nurses.

Several reviews emphasized the importance of flexible work conditions to enable mentoring opportunities for senior/experienced nurses.^{2,47,53} Accommodating nurses' schedules motivates them to delay their retirement or return to work as agency nurses.^{2,53,65} Several reviews referenced the 80/20 model, an Ontarian late-career nurse initiative, as promoting flexible work.^{4,56,70} The 80/20 model is a professional development model targeted to nurses ages 55 and over, which allows them to spend 80% of their time working in the clinical setting and the remaining 20% involved in projects and initiatives such as mentoring.^{4,70} In this model, mentorship and preceptorship opportunities are return-to-work strategies for close-to-retirement or recently retired nurses to take advantage of to further their careers and update their knowledge, skills, and expertise.⁴ Research on the 80/20 model reveals many positive outcomes and improved career satisfaction.⁵⁶ The benefits are multifold in the sense that while the program creates full-time positions for new nurses, it also keeps experienced nurses in the workforce.⁵⁶

Tele-commuting to enable mentoring and support retention of mid- and late-career nurses.

Tele-commuting is another means to scale up mentoring opportunities for mid- and late-career nurses and is particularly relevant and convenient in the context of the COVID-19 pandemic. Defined as "an employee who uses telecommunication equipment to work from home or a secure remote location", tele-commuting allows senior nurses to virtually engage in mentoring.^{53,71} The literature supports tele-commuting as an opportunity for Baby-Boomer nurses because it allows for the retention of their clinical expertise to benefit both the patients and to socialize nurses in their transition-to-practice.⁵³ In addition to being a tool extending experienced nurses' careers, telecommuting reduces the physical demands of bedside nursing and allows mentors to stay connected to other nurses. Tele-commuting options include telehealth and tele-mentoring. In the context of this report the latter is most relevant. Tele-mentoring involves synchronous and asynchronous modalities.^{53,55} In synchronous modality, mentors and mentees communicate via videocall or phone while in asynchronous mode, they communicate by email or on online forums. Both modalities allow senior nurses to work at a sustainable pace to contribute to clinical nursing and stay connected to the profession. Similar to in-person mentoring, tele-mentoring promotes the creation of intergenerational networks which are conducive to cohesiveness and overall staff support.⁵³

Institutional support and partnerships to enable mentoring and support retention of mid- and late-career nurses.

Partnerships between academic institutions and hospitals are another way of promoting mentoring opportunities for senior nurses interested in career development.⁴² It is also essential for nurse managers to have sufficient resources to support mentorship initiatives in which mid- and late-career nurses can participate.^{2,53} Hospitals that implement mentoring programs actively invest in the professional growth of employees like nurses and are likely to witness greater staff engagement, which can improve retention rates.⁵⁷

In that regard, the United Kingdom's National Retention Program to retain employees like nurses and reduce

turnover rates is noteworthy.⁶⁵ This program led to 'legacy nurse initiatives' which rely on mentors who are experienced nurses usually in their late career.^{31,65} One hospital developed an action plan intending to reduce turnover by one percent over 12 months via initiatives like mentorship programs. The program was also geared towards staffing mid-career needs and supporting staff over 50 years old.³¹ Surveys and turnover data collected from legacy nurse initiatives show improved staff experience, reduction in vacancy rates and better retention of nurses.³¹ Given the success of the National Retention Program, mentoring was extended to other health-allied professionals like midwives.⁶⁵

Mentoring is conducive to career development in mid- and late-career nurses

The opportunity for mid- and late-career nurses to be mentors yields many benefits such as professional, and personal development.^{4,39,45,56} However, few of the examined reviews provided an in-depth analysis of how mentoring promoted professional and personal development, thus highlighting a gap. The reviews that provided a brief explanation cited that being a mentor fostered a sense of empowerment, leadership, improved managerial and interpersonal skills and that professionally, it was an opportunity for them to upgrade their knowledge, skills, and expertise.^{1,4,17,30}

For senior nurses contemplating retirement, taking on a mentoring role is an alternative to bedside nursing. Training junior nurses contributes to the sustainability of the hospital workforce. Senior nurses are then "contributing to the professional growth of replacement nurses through formal and informal mentoring networks".⁵³ Senior nurses who become mentors have the opportunity of passing on their knowledge and experience to those going through role transition.^{51,67} This is especially important in the context of an aging workforce likely to result in a loss of employees due to retirement. The evidence brought forward by many reviews is that senior nurse mentors are crucial because they contribute to patient quality of care and ensure mentees maintain this standard.^{2,42,56}

By providing training to less experienced nurses, mid- and late-career mentors can also help mitigate negative outcomes related to a lack of competent staff, such as the reduction in available hospital beds and delays in care and treatment due to lack of staff.³⁵ Training the next generation of nurses contributes to succession planning, one of the main purposes of mentoring.³⁹ Being a mentor has benefits for senior nurses, like career optimism, professional growth, increased job satisfaction and intent to stay in the nursing profession.^{26,39,64}

In a seven-part Leadership Series on how to mentor in nursing the authors mention a useful scale known as the "Mentoring Benefits Inventory".²⁶ The Mentoring Benefits Inventory is a 36-item scale developed to measure positive outcomes related to the mentoring relationship.²⁶ The mentoring practices are career developmental elements facilitated by the mentor and the workplace.²⁶ Nurse mentors perform these practices when they map the future, teach, support the transition, provide protection, and equip mentees for leadership.²⁶ These mentoring practices contribute to the overall retention of senior mentors and their protégé.²⁶

One multiple case study looked at the implementation of a multifaceted mentoring program in a university hospital in Sweden. The program provided experienced nurses with new career opportunities, a chance to further develop their skills, and to take on a positive challenge.³⁵ Senior nurses reported that they felt their competence was valued and appreciated by the hospital.³⁵ The study underscored that senior nurses were crucial to the success of the program due to their continued engagement with mentees in answering their questions and helping them reflect on their practice. The findings of this study indicated that hospitals' continued investment in senior nurses' competence development promotes their retention as supervisor nurses.³⁵

Mentoring advanced practice nurses

Mid- and late-career nurses are in stages in their careers where they might seek to further their practice such as through specialization or advanced practice. As these nurses are transitioning into new roles or nursing specialties, they can benefit from guidance and support provided by mentorship programs.⁴⁸ Senior-level mentors can help mentees adapt to their new responsibilities and work environment.⁴⁸

Supporting specialized and advanced practice nurses contributes to the sustainability of the hospital workforce.^{57,66} Advanced practice nurses (APNs) can also benefit from mentoring opportunities as mentees. This is especially important when they are career-laddering or transitioning into specialized care.⁵⁶ The RNAO has implemented a Mentorship for Nurses Program designed for those looking for a mentor to support their professional career development.⁵⁶ One report and two reviews highlighted the need to provide sufficient support to APNs to keep attracting and retaining highly skilled nurses in specialized areas. A report by the RNAO described the Advanced Clinical Practice Fellowship Program which pairs a nurse practitioner with a mentor to engage in a self-directed learning experience to develop knowledge, clinical, and leadership skills.⁵⁶ The first review looked at formal mentoring for nurse practitioners (NPs) and found that they reported greater job satisfaction when paired with a mentor.⁴⁷ The programs also facilitated role transition and improved professional development and retention rates of NPs.⁴⁷ Since time constraints were identified as a main barrier to mentoring, online mentorship should be considered as an alternative for NPs.⁴⁷ The second review maintains that mentoring programs are beneficial for specialized cancer nurses because, in addition to promoting professional development and skill maintenance, they help prevent burnout and promote retention.⁴⁵

4. Cultural Considerations for Mentoring IENs

The global nursing shortage has led to the migration of nurses across international borders and has significantly helped to bolster the workforce in countries like Canada.⁴⁶ Workplace mentorship for IENs is considered to be an essential integrational strategy to support the transition of culturally and linguistically diverse nurses into Canadian hospitals.⁴⁶ Ensuring the adaptation of IENs to their new environment enables their skills, and professional and linguistic competencies and promotes job satisfaction, all key elements conducive to nursing retention.⁴⁶ Collaborative partnerships between hospitals and the Centre

for Internationally Educated Nurses (CARE) facilitate the employment and integration process of IEN because of programs like mentoring. ⁴

A 2022 report by the Canadian Federation of Nurses Unions highlighted the need for more mentors for IENs. It suggested that this lack of mentors could be filled by senior nurses sharing similar backgrounds as IENs especially given that that would foster feelings of acceptance for IENs. ^{4,46} Studies have shown that mentoring and peer support help nurses acculturate into the organization and enable smooth integration into the workforce and job satisfaction. ⁴⁶

On a broader scale, although developed countries like Canada recruit IENs to mitigate the ongoing nursing shortage and offer programs like mentorship, research shows that the highest number of facilities that have implemented mentoring programs are located in low- and middle-income countries. ⁴² One review described two mentoring initiatives worth noting. First, the Mentorship and Enhanced Supervision for Health Care and Quality Improvement in Rwanda was implemented by Partners in Health and the Rwanda Ministry of Health. Second, India hosted two large-scale mentoring programs. The first one was the mobile nurse mentoring program. The second was the AMANAT program, an *Emergency Obstetric and Neonatal Readiness Program*, which provides mentoring in over 320 primary health centers. ⁴² Although the authors do not provide outcome measures related to the retention or turnover rates yielded from mentorship programs in Rwanda and India, further examination of these initiatives is warranted as much can be learnt. It would also be interesting to explore the application of relevant components of these mentorship programs in Canadian hospitals.

Discussion

The purpose of this brief is to gather and share evidence on how mentorship programs can reduce turnover rates and promote the retention of early-, mid-, and late-career nurses in acute settings like hospitals. We highlight how mentorship can achieve this across all three levels of nursing and discuss some of the main effective and ineffective features of mentorship programs. For early-career nurses, four elements were central in ensuring that mentoring would promote their retention, namely, (i) developing supportive and encouraging relationships; (ii) guiding nurses in their professional, personal, and interpersonal growth; (iii) the provision of adequate resources; and (iv) supportive institutional or administrative structures.

The literature on nursing mentorship focusing on early career nurses has the potential of influencing the ongoing education and training in the nursing profession and there is a need for more quantitative and qualitative clinical performance indicators that measure new graduate nurses' competency pre- and post-mentorship. ⁵

For mid- and late-career nurses, studies of mentorship initiatives merged these groups, and the literature

supports increasing the availability and opportunity for experienced nurses to become mentors; framing and positioning mentoring opportunities as career development opportunities for mid- and late-career nurses is important in increasing retention within this group.

Further, although our literature search did not identify the exact number of mid-career nurses leaving their positions in acute setting in Canada, a 2022 survey in the US reveals that 71% of hospital nurses with more than 15 years of experience are thinking of leaving the hospital soon.³ Anecdotal evidence would potentially suggest that Canada faces similar statistics for mid-career nurses working in hospitals. However, because the literature does not differentiate between mid- and late-career nurses it's challenging to estimate the number of mid-career nurses leaving acute settings. Nonetheless, proactive retention policies focusing on the needs of mid-career nurses would indicate a commitment and an interest in retaining them in acute settings.⁶⁰

For this brief, we drew from evidence published in reviews of studies conducted in OECD countries. We also acknowledge the presence of highly successful nursing mentoring initiatives in low- and middle-income countries. Canada and other OECD countries would greatly benefit from looking into those initiatives to assess their relevance and application to the Canadian nursing landscape.

Conclusion

The COVID-19 pandemic has ravaged the nursing workforce, but factors affecting nurse retention and turnover are complex and trends have persisted over decades. This rapid review presents evidence supporting the case that mentorship can be effective in retaining nurses at all stages of their careers.

It is inevitable that one day or another, most of us will need the care of a nurse. Identifying and implementing effective strategies to retain nursing staff will be a more cost-effective approach than perpetuating a constant cycle of departure and recruitment; formal nurse mentorship programs offer one strategy for increasing retention. "Systemic efforts should be made to bolster nurses' capacity [...] by establishing processes for mentorship and supporting enhanced professional development of nurses across career stages".^{72(p15)} Targeted contingency funding, such as through grants and contributions programs, would support national and provincial/territorial efforts to mentor and retain nurses across their career spans. Nursing is central to high quality and safe patient care, and initiatives to retain nurses, such as through mentorship, should be urgently implemented.

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Appendix 1: Inclusion and Exclusion Criteria

	Inclusion Criteria	Exclusion Criteria
Population	Nurses	Other health care professionals
Country	OECD* countries (Canada, US, UK, France, Australia, Japan, Korea, Denmark, Germany, Italy etc.)	Low- and middle-income countries with different health care systems than Canada
Interests	Mentorship programs that impact retention	Mentorship for improved clinical practice. Papers on mentorship that don't address retention. Recruitment
Setting	Hospital inpatients/acute settings	Community setting Clinics LTC
Language	Paper written in French or English	
Date of publication*	2010-2022	< 2010
Methodology	Commentaries Synthesizing reviews of reviews (e.g., scoping reviews, rapid reviews, systematic reviews) Grey literature	No single studies (as clarified by Christine)

Preference was given to studies looking at nursing mentorship programs in OECD countries and written in English or French. Geographical setting was limited to OECD countries as they are often used as comparator because they have a similar economic infrastructure, with similar levels of resources to devote to health care and have comparable data collection methods.⁷³

For this brief, publications from 2010 to 2022 were considered. This timeframe was chosen based on the report *Research to Action Project: Applied Workplace Solutions for Nurses* published in 2012.⁶⁸ The 2010 starting point was chosen because it coincides with the time between two key moments. The first being when the federal government (Health Canada), in 2008, provided funds to the CNFU and partner agencies to develop pilot projects across the country aimed at improving nurse retention. The second key moment marked the evaluation these nursing retention initiatives and strategies in 2012.⁷⁴

Appendix 2: Search Strategy and Search Terms

Detailed information on search for academic and grey literature

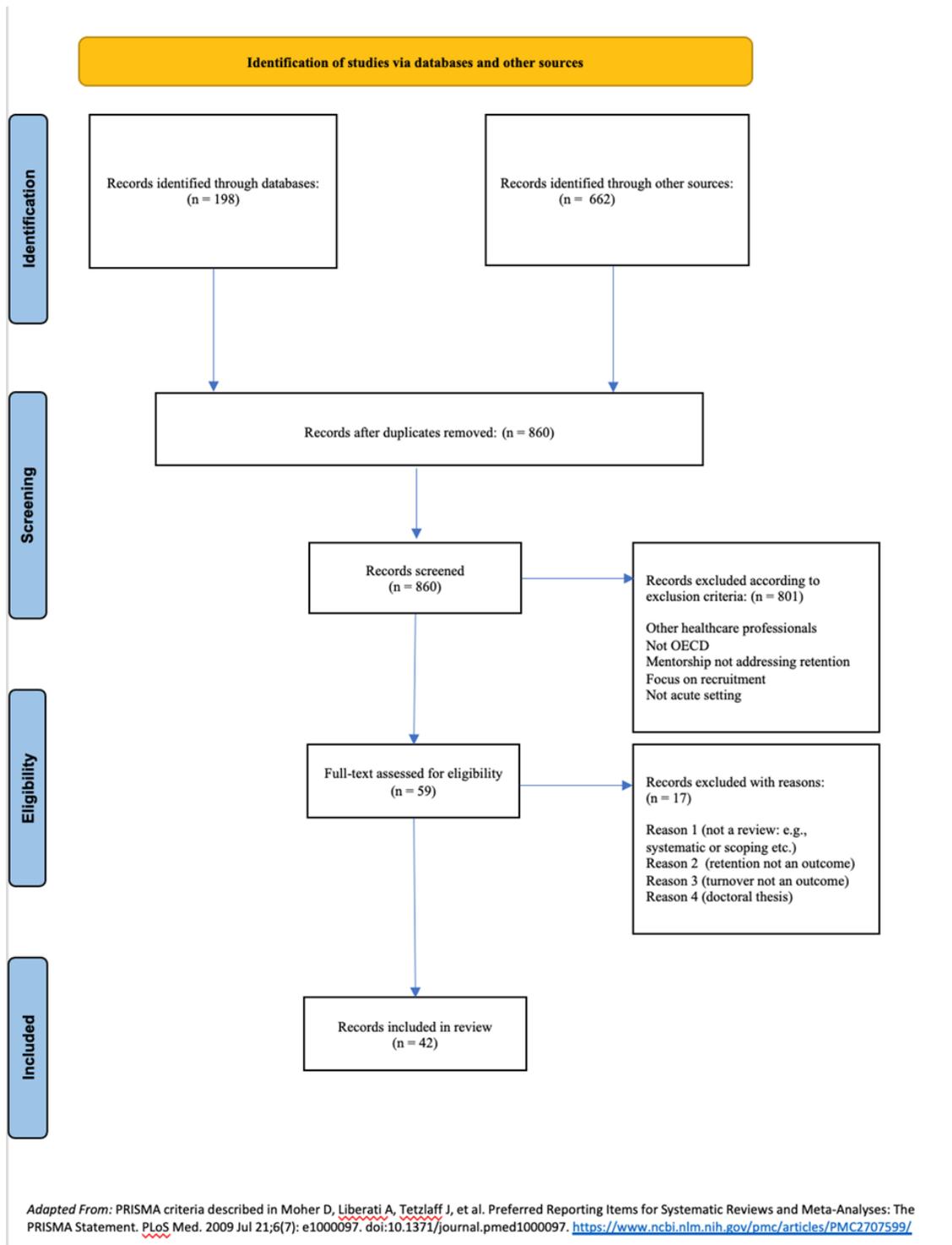
In searching academic and grey literature, the following key search terms were used.

Key search terms	Search strategy
“Nursing” or “nurses” or “registered nurse” “Mentorship” or “mentorship program” or “Mentoring” “mentoring program” or “mentor” “Hospital” or “acute setting” “Retention” or “turnover” or “intent to stay” or “intention to leave”	(Nursing OR nurses) AND (Mentorship) AND (hospital OR acute setting) AND (retention OR intent to stay). (Nursing OR registered nurses) AND (Mentorship program) AND (hospital OR acute setting) AND (retention OR turnover).

Data on review design, setting, jurisdiction, population studied, and type of impacts were extracted when reported.

In total, 59 papers were identified and screened for relevance, and 42 included as a result.

Appendix 3: PRISMA Flow Diagram



Appendix 4: Key Features of Included Reviews

Type of source	Webpage	Report	Blog	Column	Commentary	Academic source
#	13	2	2	1	1	23

Type of Academic source	Scoping review	Systematic review	Comprehensive review	Umbrella review	Literature review	Integrative review
#	3	9	3	1	4	3

Appendix 5: Examples of ECN Mentoring Programs Reducing Turnover Rates and

Increasing Retention rates in Hospitals

Above are examples drawn from three systematic reviews that provided evidence that mentorship programs in increased retention rates for ECNs (from 13% to 25%) and reduced turnover rates (from 7% to 18.23%). Most studies do not provide details on how they have calculated outcome variables such as retention and turnover rates. ²⁹

Note: retention is often defined in studies as the rate at which employees stay within an organization over a period of time, whereas turnover refers to nursing staff leaving the organization, either voluntarily or involuntarily. ^{27,28}

