

The Role and Contributions of Nurses in Stroke Rehabilitation Units: An Integrative Review

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Disclosure of Affiliations & Financial Support

□ Affiliations:

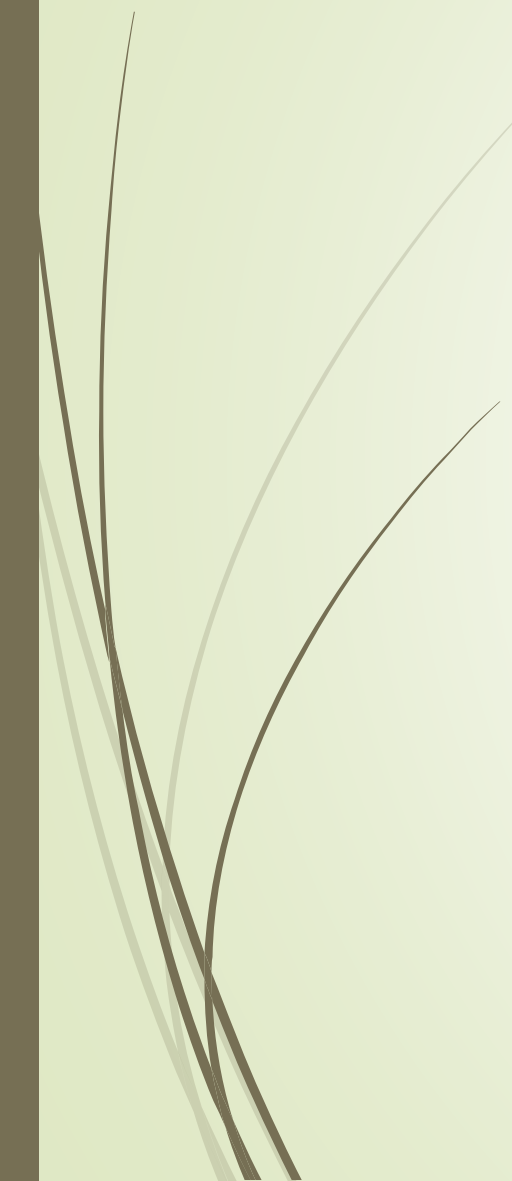
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- NS; Wishes to disclose that she is employed at WeRPN (Registered Practical Nurses Association of Ontario) in Professional Practice and Research. However, she was not an investigator on the grant obtained from WeRPN as described in Funding Statement.

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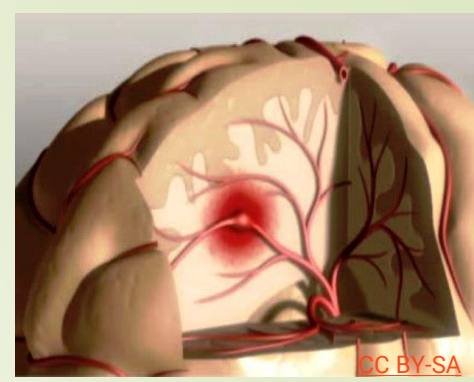
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Outline

- Introduction
 - Background
 - Purpose of the Review
 - Review Methodology
 - Results
 - Limitations
 - Relevance to Clinical Practice
 - Recommendations
- 

Introduction



- Measures for Assessing Financial Performance and Function of stroke rehabilitation services in Ontario:
 - Direct rehabilitation cost
 - Nursing worked hours
 - Nursing plus therapy worked hours
- Indicator values of inpatient rehabilitation Services
 - Time that nurses and therapist spend providing care
 - The values show that nurses are key contributors to rehabilitation
- Nursing contributions to stroke rehabilitation may promote physical, functional, and cognitive recovery



Background

- ▶ View of Nurses' contributions in stroke rehabilitation
 - ▶ Pivotal
 - ▶ Therapeutically nonspecific (Barreca & Wilkins, 2008)
 - ▶ Not directly related to patient outcomes (Burton, 2000)
- ▶ In context of Interprofessional Rehab.
 - ▶ No consensus about
 - ▶ nurses' specific roles
 - ▶ How nurses perform therapeutic roles
 - ▶ Factors influencing nurses' working conditions
- ▶ Lack of Focus on this area of rehabilitation.
(Hankey & Langhorne, 2006; Kirkevold, 2010; Long et al., 2002; Pryor et al., 2002).

Background (cont.)

Recognizing Nurses as

members of interprofessional team

Clinical Work

Taken for granted
Undervalued
Undocumented
(De Weerd et al., 2001; Pryor, 2008; MacDonell & Mau, 2017)

Clinical Need

Formal understanding of nurses' contributions to stroke rehabilitation process

Role Clarity May

Increase **awareness** of the unique contributions of nurses to interprofessional **teams**

Identify **barriers** and challenges to

- Integrating nursing care
- Promoting rehabilitation nursing **as specialized** professional nursing entity
- Advancing **nursing curriculum**
- **Educating** future nurses



Purpose & Research Questions


► Purpose of the Review

- To Synthesize findings from identified research literature on
 - Nurses' roles and contributions to stroke rehabilitation
- To Analyze the findings via three research questions

► Research Questions

1. What specific skills or tasks have been identified as the roles and contributions of nurses to inpatient stroke rehabilitation?
2. How do nurses perform these skills/tasks to support and promote inpatient stroke rehabilitation and recovery? and
3. What factors have been identified to impact the nurses' working conditions on inpatient stroke rehabilitation units?

The Role and Contributions of Nurses in Stroke Rehabilitation Units: An Integrative Review

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Abstract

Nurses' contributions to stroke rehabilitation have been viewed as pivotal, but therapeutically nonspecific. This integrative review synthesized empirical literature on the roles and contributions of nurses to inpatient stroke rehabilitation to answer three research questions: (a) What specific skills or tasks have been identified as the roles and contributions of nurses to inpatient stroke rehabilitation? (b) How do nurses perform these skills/tasks to support and promote inpatient stroke rehabilitation and recovery? and (c) What factors have been identified to impact nurses' working conditions on inpatient stroke rehabilitation units? A systematic search of multiple electronic databases retrieved seven studies which provided significant context and examples to these questions. *What nurses do* in practice included, for example, maximizing patients' independence in performing daily activities, preventing harm, and preserving integrity. *How nurses perform* their therapeutic roles included teaching, coaching, coordination, management, advocacy, collaboration. *Factors that impact nurses' working conditions* consisted of time, resources, and knowledge. This review demonstrates our current understanding of nurses' contributions to inpatient stroke rehabilitation, highlights their significant role, identifies current barriers/challenges of implementing stroke nursing care, and suggests ways of documenting and measuring nurses' contributions.

Keywords

Stroke rehabilitation, Nursing, Role, Competency, Identity

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Methods



Design: Integrative Review



Rationale: Satisfies the aim; Provides heterogeneity



Five-stage review methodology: Identify problem, lit search, evaluate data, analyze data, present results (Whittemore & Knafl, 2005)



Search Strategy

- ▶ Developed in consultation with a **Librarian** at Western University
- ▶ Databases Searched:
 - ▶ MEDLINE,
 - ▶ PsycINFO,
 - ▶ CINAHL,
 - ▶ EMBASE,
 - ▶ SCOPUS, and
 - ▶ ProQuest Nursing and Allied Health
- ▶ Publication years: Up to December 30, 2021.
- ▶ Guidelines used to report the review
 - ▶ Preferred Reporting Items for Systematic Reviews and Meta-Analysis Extension for Scoping Reviews (PRISMA-ScR; Tricco et al., 2018)

Search Terms/Keywords

- Primary constructs searched using subject headings, keywords, and MeSH terms were
 - stroke rehabilitation,
 - geriatric rehabilitation,
 - Nursing
- Reference Lists of
 - research and review articles

MEDLINE (Ovid) Search Strategy

1.	stroke rehabilitation/ or rehabilitation/
2.	((stroke or geriatric) adj5 rehabilitation).tw,kf.
3.	1 or 2
4.	rehabilitation nursing/
5.	nurse's role/
6.	exp nurses/ or nursing staff/
7.	evidence-based nursing/
8.	((nurse* or nursing) adj5 (role or practice or contribution* or function*)).tw,kf.
9.	4 or 5 or 6 or 7 or 8
10.	exp stroke/
11.	geriatrics/
12.	health services for the aged/
13.	exp aged/
14.	aging/
15.	(stroke or geriatric*).tw,kf.
16.	10 or 11 or 12 or 13 or 14 or 15
17.	(inpatient adj5 rehabilitation).tw,kf.
18.	3 and 9 and 16 and 17






Groups of Retrieved Articles

- ▶ **Two distinct groups** were evident.
 - (a) rehabilitation studies for people who
 - (a) had sustained a stroke and
 - (b) were admitted to inpatient stroke rehabilitation
 - (b) rehabilitation studies for
 - (a) older adults
 - (b) receiving inpatient care on geriatric rehabilitation units.
- ▶ **Two separate reviews** were conducted to
 - ▶ address context-specific research questions.
- ▶ Geriatric rehabilitation nursing review
 - ▶ Published in Nursing Open
<https://doi.org/10.1002/nop2.1951>

SCOPING REVIEW

The role of nurses in inpatient geriatric rehabilitation units: A scoping review

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Abstract

Aims: (1) To review and synthesize research on the contributions of nurses to rehabilitation in inpatient geriatric rehabilitation units (GRUs), and (2) to compare these reported contributions to the domains of international rehabilitation nursing competency models. The roles and contributions of nurses (e.g. Registered Practical Nurses, Registered Nurses and Licensed Practical Nurses) in GRUs are non-specific, undervalued, undocumented and unrecognized as part of the formal Canadian rehabilitation process.

Design: Arksey and O'Malley's methodological framework for scoping reviews and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews guidelines were used.



Inclusion Criteria

► Inclusion

- a) Study **setting**: Inpatient stroke rehabilitation unit
 - a) 'Inpatient' was defined as care of patients admitted to a hospital,
- b) The primary **aim** of the study was
 - a) to explore nurses' roles, contributions, or functions within the rehabilitation unit,
- c) Perspectives were sought from nurses directly, and
- d) The article was available in English.
- e) **All nurses** in stroke rehabilitation units by
 - a) role, title, designation
 - a) (e.g., staff nurse manager, rehabilitation coordinator)



Exclusion

- ▶ Exclusion
 - ▶ Theoretical articles
 - ▶ Continuous learning/education modules
 - ▶ Editorials
 - ▶ Blog posts
 - ▶ Protocols
 - ▶ Program descriptions/reviews
 - ▶ Non-systematic reviews
 - ▶ Published abstracts
 - ▶ Textbook chapters
 - ▶ Conference proceedings
 - ▶ Clinical practice guidelines.



Assessment for Methodological Quality

- ▶ **Nine domains** used to assess articles for
 - ▶ methodological rigor (Hawker et al., 2020)
- ▶ Each domain includes items rated on a **four-point** ordinal scale
 - ▶ (a) very poor, (b) poor, (c) fair, and (d) good.
 - ▶ Total scores range from 9 to 36 with scores of
 - ▶ 28–36 considered good quality articles,
 - ▶ 20–27 as fair,
 - ▶ 10–19 as poor, and
 - ▶ <10 as very poor.
- ▶ Two authors completed the appraisals separately
- ▶ Discrepancies: the two authors discussed each item until consensus was reached.



Data Extraction

- ▶ Articles exported to **Covidence** software
 - ▶ Duplicates were removed
- ▶ Two authors screened 9,764 titles followed by 454 abstracts
 - ▶ for relevance to the review topic.
- ▶ Sixteen (16) full-text articles were reviewed
- ▶ Disagreements were resolved through discussion.
- ▶ In total, **seven** studies met inclusion criteria

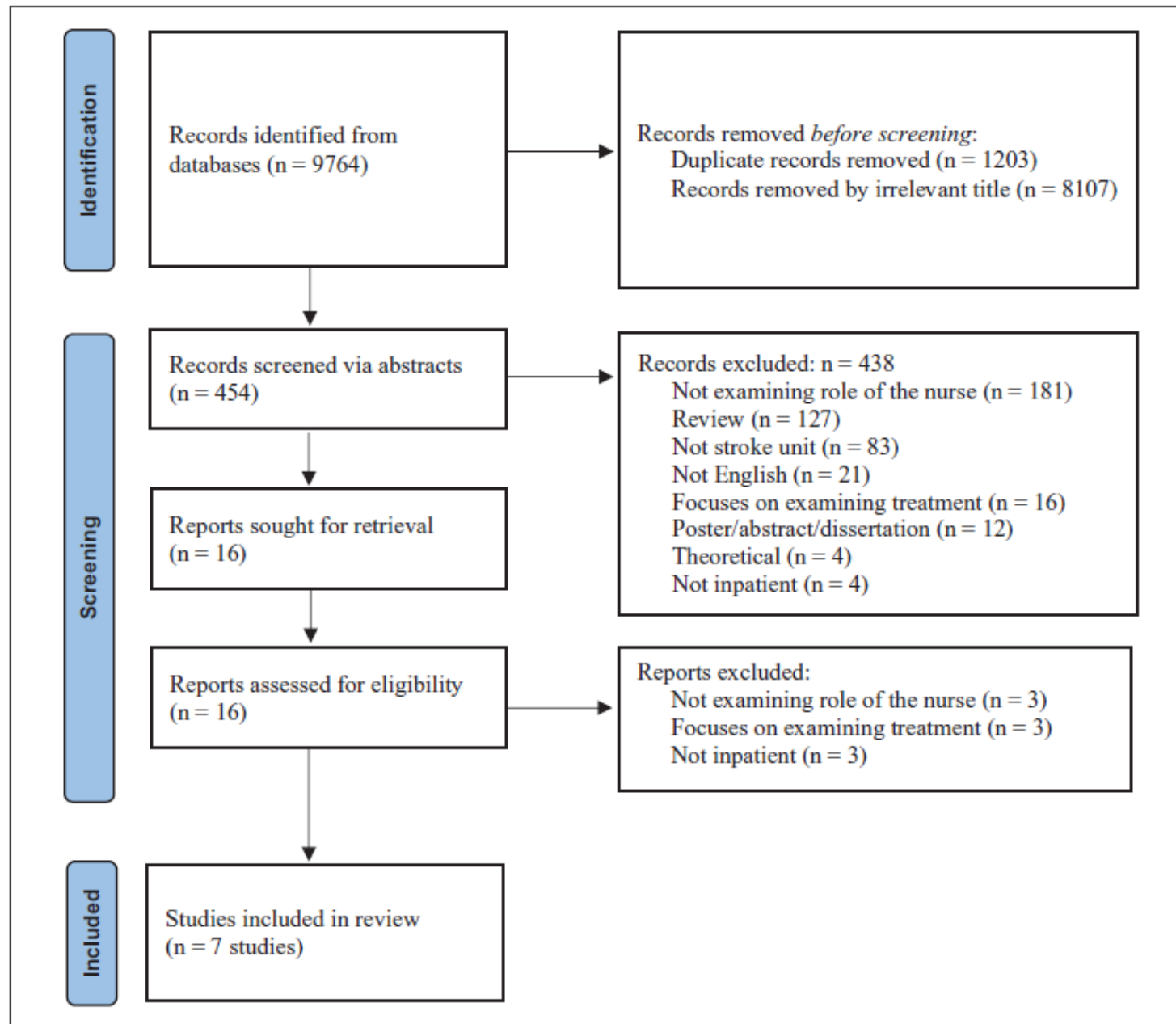


Figure 1. PRISMA flow diagram for the systematic literature search.



Data Extraction

- ▶ Using data **extraction form**, two reviewers independently extracted data verbatim
- ▶ Extracted data
 - ▶ author(s),
 - ▶ country of first author's origin,
 - ▶ Year of publication,
 - ▶ study aim/objective,
 - ▶ study design,
 - ▶ method of
 - ▶ data collection,
 - ▶ sample size and characteristics, and
 - ▶ reported themes/findings.



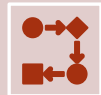
Data Analysis



Individual study findings reviewed line by line



Brief **codes generated**, to describe the nature of the findings



Codes iteratively reviewed, compared, contrasted for similarities of concepts



Codes **grouped** together, placed within three deductively determine themes



Data Analysis (cont.)

- ▶ **First theme: What Nurses Do**

- ▶ Research question:

- ▶ What specific skills or tasks have been identified as the roles and contributions of nurses to inpatient stroke rehabilitation?

- ▶ The **“What”** of nursing care in rehabilitation units was defined as

- ▶ the episodic daily activities (related to direct patient care) that nurses perform in rehabilitation units, including (Pryor, 2002)

- ▶ administration of therapeutic interventions,

- ▶ management of complex health situations that change rapidly, and

- ▶ monitoring of therapeutic interventions



Data Analysis (cont.)

- ▶ **Second theme: How Nurses Perform**

- ▶ Research question :

- ▶ How do nurses perform these skills/tasks to support and promote inpatient stroke rehabilitation and recovery?

- ▶ The **“how”** of nursing care in rehabilitation units was defined as

- ▶ nurses’ continuous actions which are woven into direct care activities described in the “what” of nursing care in rehabilitation units, including (Pryor, 2002)

- ▶ observation,
 - ▶ assessment,
 - ▶ interpretation,
 - ▶ monitoring and ensuring quality of care,
 - ▶ teaching and coaching,
 - ▶ rehabilitation approach,
 - ▶ management, advocacy, and
 - ▶ coordination of care.



Data Analysis (cont.)

- ▶ **Third theme: Factors that Impact Nurses**

- ▶ Research question:

- ▶ What factors have been identified to impact the nurses' working conditions on inpatient stroke rehabilitation units?

Results



Seven studies included (6 qualitative, and 1 mixed methods study)



3 Danish, 3 UK, and 1 Canadian study



Publication years : 1999-2018



Sample sizes 8-63 (total = 145): EN, RN, RPN



Methodological quality: 6 = Good for all but 1 article (fair (due to limited description))



Three themes with accompanying sub-themes generated

Theme 1: What Nurses Do on Stroke Rehabilitation Units



Table 1. Study themes which answer research question one: "What specific skills or tasks have been identified as the roles and contributions of nurses in stroke rehabilitation units?"

Primary Author, Year Country of Origin Method Sample Quality Rating	Findings	
	Assisting With Performance of Daily Living Activities	Administering and Monitoring Therapeutic Interventions
Aadal et al. (2018) Denmark Hermeneutic phenomenology N=19 Nurses Good	<ul style="list-style-type: none"> • Provide care for relatives in crisis • Involve relatives in goals setting. • Remain present with patient and relatives, 24×7 	<ul style="list-style-type: none"> • Administers medications • Dressing changes • Pain control
Barreca & Wilkins (2008) Canada Hermeneutic phenomenology N=8 RNs, RPNs Good	<ul style="list-style-type: none"> • Provide care 24×7 • Assist patients to perform daily activities 	<ul style="list-style-type: none"> • Administer medications • Guide patients to self administer medications
Burton (2000) United Kingdom Reflective inquiry N=13 RN, EN Good	<ul style="list-style-type: none"> • With patient 24×7 • Provide basic care of physical needs (e.g., provide nutrition, hydration, elimination, hygiene) • Facilitate recovery by helping patients to translate skills learned during therapy to performing daily living activities 	<ul style="list-style-type: none"> • Administer medications to prevent further infarction • Perform wound dressings • Performs risk assessment to prevent harm and maintain safety
Clarke & Holts (2015) United Kingdom Mixed method: Q-methodological approach N=63 RNs Good	<ul style="list-style-type: none"> • Facilitate and enable patients to develop confidence and skills to perform tasks independently • Initiate baths and feeding but encourages patient to perform them independently until they are unable. • Assist patients with eating, drinking, walking 	<ul style="list-style-type: none"> • Administers medication • Performs physiological assessments • Manages continence issues • Performs wound dressings
Dreyer et al. (2016) Denmark Hermeneutic phenomenology N=19 Nurses Good	<ul style="list-style-type: none"> • With patient 24×7 • Meet basic needs • Manage and provide nutrition, hygiene • Assist with mobilization • Provide opportunities for sleep, rest, and stimulation • Assist patient with toileting • Assist with oral care • Develop and implement care plan • Ensure patients sleep and rest after exercise and activity • Involve relatives in patient's care • Provide care for relatives 	<ul style="list-style-type: none"> • Administer medications • Monitors vital signs • Performs pain assessment • Monitors patient's weight and height
		<p>Hill & Johnson (1999) United Kingdom Qualitative descriptive N=9 RNs Fair</p> <ul style="list-style-type: none"> • Guide patients to perform tasks for themselves • Present with patient 24×7 • Continuously help patients to practice skills (e.g., mobilization) learned during therapy • Assist with bathing, and continence care • Facilitate sleep • Provide skin care • Provide nutrition • Help patients to achieve maximum independence <p>Loft et al. (2017) Qualitative descriptive Denmark N=14 RNs Good</p> <ul style="list-style-type: none"> • Present with the patient 24×7 • Provide basic care needs and support • Assist with mobility and transfers • Help patients to repeat and practice interventions (prescribed by therapists) throughout the day • Prepare for rounds • Perform administrative tasks

Note: EN=Enrolled Nurses; RN=Registered Nurses; RPN=Registered Practical Nurses.



Results Theme 1: What Nurses Do

Sub-theme 1: Provision of Basic Care and ADLs

- ▶ Nurses spend 24/7
- ▶ Maintains Nutrition (feeding)
- ▶ Provides hydration (drinking)
- ▶ Assists with elimination (toileting, continence care)
- ▶ Maintains personal hygiene
 - ▶ (bathing, dressing, grooming, oral care, skin care)
- ▶ To maximize independence in performance of daily activities
 - ▶ Nurses initiate certain activities (e.g., bathing, feeding), then
 - ▶ coach and encourage self-performance



Results Theme 1: What Nurses Do

Sub-theme 1: Provision of Basic Care and ADLs

- ▶ Provision of basic care 24/7 (cont.)
- ▶ Provide opportunities for sleep, rest, and stimulation
- ▶ Provide skin care
- ▶ Helps clients to use skills learned during therapy
- ▶ Helps clients to practice interventions prescribed, planned by interprofessional teams
- ▶ Including mobility and transfer skills



Results Theme 1: What Nurses Do

Sub-theme 2: Administering and Monitoring Therapeutic Interventions

- ▶ Reportedly done to meet their physical needs, maintain safety, and prevent harm
- ▶ Administers medications to
 - ▶ Prevent further cerebral infarction
 - ▶ Treat post-stroke complications, and comorbidities
 - ▶ Control pain
- ▶ Wound dressing for pressure ulcers
- ▶ Provides continence care
- ▶ Monitors vital signs
- ▶ Documents height and weight
- ▶ Performs risk assessments to prevent harm and maintain safety

Theme 2: How Nurses Perform on Stroke Rehabilitation Units



Table 2. Study themes which answer research question two: "How do nurses perform their roles to support and promote recovery of patients in stroke rehabilitation units?"

Primary Author, Year Method Sample Quality Rating	Findings		
	Teaching and Coaching	Emotional and Psychosocial Support	Care coordination, Management, Advocacy, and Collaboration
Aadal et al. (2018) Denmark Hermeneutic phenomenology N=19 Nurses Good	<ul style="list-style-type: none"> Teach patients and relatives about life at home after discharge Inform, teach, and talk with both patients and relatives to facilitate mutual understanding of the patient's condition 	<ul style="list-style-type: none"> Prepare relatives to cope role as caregiver Provide care for relatives in crisis Create time to be with the relatives and talk to them about their feelings and how they dealt with crisis in the past Be aware of how the relatives react to the crisis Unable to step back from helping a patient to perform an activity 	<ul style="list-style-type: none"> Facilitate communication and cooperation between relatives and the care team Sets targets with relatives and patients Involves relatives in care planning and decision-making Clarify the patient's needs through the relatives Engage relatives to contribute their knowledge and resources toward patient care
Barreca & Wilkins (2008) Canada Hermeneutic phenomenology N=8 RNs, RPNs Good	<ul style="list-style-type: none"> Cue and teach patients Help patients to relearn functional tasks 	<ul style="list-style-type: none"> Unable to step back from helping the patient to perform an activity 	<ul style="list-style-type: none"> Offer alternative interpretations to patient circumstances Uses humor to cope with problems Collaborates with interprofessional teams Clarify questions from team members because of being present with patient 24x7
Burton (2000) United Kingdom Reflective inquiry N=13 RN, EN Good	<ul style="list-style-type: none"> Teach patients and families the work of other therapists Teach patients about harm prevention 	<ul style="list-style-type: none"> Provides comfort for patients Helps patients to cope with their condition Provide social support 	<ul style="list-style-type: none"> Coordinates the multidisciplinary teams by liaising, organizing, mediating, and planning care Inform others about patient's progress, coping, emotional health, social support, and home circumstances Facilitates recovery Advocates for patients and families Collaborate with other members of the Use multidisciplinary team approach to facilitate client's independence Coordinates patients, families, and team to provide quality care for patients
Clarke & Holts (2015) United Kingdom Mixed method: Q-methodological approach N=63 RNs Good		<ul style="list-style-type: none"> Provides social and emotional support 	
Dreyer et al. (2016) Denmark Hermeneutic phenomenology N=19 Nurses Good	<ul style="list-style-type: none"> Train patients and relatives to perform daily living activities like bathing, brushing teeth 	<ul style="list-style-type: none"> Knowing patient as a person (her preferences, social/family life, ways of coping with or managing illness) facilitates provision of care, implementation of rehabilitation interventions, and accomplishment of goals Establish therapeutic relationship with patients and families to facilitate implementation of goals set by team Create time and hope for the patient. 	<ul style="list-style-type: none"> Involve patients in care planning Integrate patient's perspectives in goal setting Coordinate care Advocate for patients and families Facilitate communication and cooperation between patients, families, and multidisciplinary team during rehabilitation Engage relatives resource persons for support and information about patient's condition and progress Coordinate care and present feedback about patient's progress to the team
Hill & Johnson (1999) United Kingdom Qualitative descriptive N=9 RNs Fair	<ul style="list-style-type: none"> Teach and inform patients about their general condition Train patients how to self-administer medications 	<ul style="list-style-type: none"> Facilitate patient's acceptance of reality (disability) using counselling Enable patients to take responsibility for self-care Establish therapeutic relationship with patient 	
Loft et al. (2017) Qualitative descriptive Denmark N=14 RNs Good	<ul style="list-style-type: none"> Continuously teach patients to practice newly learned skills 	<ul style="list-style-type: none"> Know the patient as a person, provide social and emotional support Struggles to step back or perform tasks "with patient" and not of "for the patient" Establish therapeutic relationships with patients 	<ul style="list-style-type: none"> Coordinates patient care, collaboration between patients, families, and multidisciplinary team

Note: EN=Enrolled Nurses; RN=Registered Nurses; RPN=Registered Practical Nurses.



Results Theme 2: How Nurses Perform

Sub-theme 1: Teaching and Coaching

- ▶ Teach, inform and educate patients/family
 - ▶ To facilitate mutual understanding of the condition/prognosis
 - ▶ To continually practice skills learned from PT, OT, SLP, Interdisciplinary team.
 - ▶ About life at home after discharge
 - ▶ Teach specific skills to patients/family/care givers
 - ▶ To promote independence through **'hands-off nursing'**
- ▶ Teach self-administration of medications
- ▶ Prevent self-harm from accidental overdose



Results Theme 2: How Nurses Perform

Sub-theme 2: Emotional and Psychosocial Support

- ▶ Families/ caregivers were perceived to **experience crisis**
 - ▶ when caring for clients after stroke.
- ▶ Nurses co-developed coping strategies to help families/caregivers
 - ▶ Creating time to be present
 - ▶ Allows for assessment of needs and frustrations
 - ▶ Know the patient as a person
 - ▶ Talking about their feelings
 - ▶ Determining how they have dealt with crisis in the past.
 - ▶ Establishing therapeutic relationships



Results Theme 2: How Nurses Perform

Sub-theme 3: Care Coordination, Management, Advocacy, and Collaboration

- ▶ **Coordinate** and mediate care activities and contributions of patients, families, interprofessional team to
 - ▶ Promote well-being
 - ▶ Enable smooth transitions of care
 - ▶ Maintain progress towards goals
 - ▶ Liaise, organize, mediate and Plan (i.e., patient/family/caregiver centered care activities)
- ▶ Attend care conferences



Results Theme 2: How Nurses Perform

Sub-theme 3: Care Coordination, Management, Advocacy, and Collaboration

- ▶ Communication strategies
 - ▶ Facilitate cooperation
 - ▶ Engage patients/families in care planning/decision making

- ▶ Collaborate with interprofessional team members to
 - ▶ Implement interventions
 - ▶ Provide information on patient progress
 - ▶ Inform others team members about coping, emotional health, social support, home circumstances
 - ▶ Facilitate recovery, and independence in performance of daily activities


**Theme 3: Factors that Impact Nurses'
Working Conditions on Stroke
Rehabilitation Units**



Table 3. Study themes which answer research question three: "What factors have been identified to impact the nurses' working conditions on stroke rehabilitation units?".

Primary Author, Year Method Sample Quality Rating	Findings	
	Barriers and Challenges	Nurses' Perceptions
Aadal et al. (2018) Denmark Hermeneutic phenomenology N=19 Nurses Good	<ul style="list-style-type: none"> No time set aside to care for relatives Preparing relatives to cope with unknown situation. Non-cooperating relatives Persistent cognitive, emotional, and behavioral changes in patients Lack of specialty knowledge on stroke rehabilitation Lack of organizational framework to support interventions 	<ul style="list-style-type: none"> Belief that nurses have a dual role in stroke rehabilitation
Barreca & Wilkins (2008) Canada Hermeneutic phenomenology N=8 RNs, RPNs Good	<ul style="list-style-type: none"> Limited resources Lack of time Supervision of everyday practice may cause missed opportunities to care Feeling that others devalue their role The struggle with personal inclinations to do everything for the patient Shortage of staff Increased workload Lack of recognition of nurse's role in rehabilitation 	<ul style="list-style-type: none"> Belief that nurses play a pivotal role in rehabilitation Feeling that their role in stroke rehabilitation is devalued by others The joy of working in stroke rehabilitation units Belief that there is lack of recognition of nurse's role in the rehabilitation process
Burton (2000) United Kingdom Reflective inquiry N=13 RN, EN Good		<ul style="list-style-type: none"> Personal beliefs about the purpose of rehabilitation
Clarke & Holts (2015) United Kingdom Mixed method: Q-methodological approach N=63 RNs Good	<ul style="list-style-type: none"> Lack of specific training to integrate rehab principles with care 	
Dreyer et al. (2016) Denmark Hermeneutic phenomenology N=19 Nurses Good	<ul style="list-style-type: none"> Lack of time 	<ul style="list-style-type: none"> Belief that nurses are vital members of the interprofessional team
		<p>Hill & Johnson (1999) United Kingdom Qualitative descriptive N=9 RNs Fair</p> <ul style="list-style-type: none"> Shortage of staff Reliance on temporary staff High turnover of physiotherapists and occupational therapists
		<p>Loft et al. (2017) Qualitative descriptive Denmark N=14 RNs Good</p> <ul style="list-style-type: none"> Lack of specific training related to stroke rehabilitation Lack of time to assist patients to perform tasks Complexity of tasks or patient's condition Lack of time Competing priorities Work overload
		<ul style="list-style-type: none"> Role as informal patient counselor not fully acknowledged Nurses have a role as liaison to other team members Nurses have a role as central communicator, reporting information to the multidisciplinary team about their patient's progress. Nurses have to possess a variety of the therapists' skills to perform their role well Nurses believe and present themselves as manager in rehabilitation units

Note: EN=Enrolled Nurses; RN=Registered Nurses; RPN=Registered Practical Nurses.




Results Theme 3: Factors that Influence Nurses

Sub-theme 1: Barriers and Challenges of Nursing Rehabilitation

- ▶ **Lack of time**
 - ▶ Decreasing quality of care
 - ▶ To assist with performance of tasks
 - ▶ Support, inform, and educate patients/caregivers

- ▶ **Shortage of staff and limited resources**
 - ▶ Difficulty attending care conferences
 - ▶ Frequent absences
 - ▶ Missed opportunity to inform team about patient progress
 - ▶ High turnover of OT and PT
 - ▶ Preventing team from practicing to the fullest capacity
 - ▶ Competing priorities and work overload
 - ▶ Burnout among experienced nurses
 - ▶ Increase injuries, absenteeism, stress
 - ▶ Discourage nurses from joining the profession




Results Theme 3: Factors that Influence Nurses

Sub-theme 1: Barriers and Challenges of Nursing Rehabilitation

- ▶ **Treatment complexity, brain injury and comorbidities**
 - ▶ High acuity = more complex needs and increased nursing activities
 - ▶ Cognitive, emotional, and behavioural impairment
 - ▶ Complicated provision of equal care

- ▶ **Lack of stroke specific knowledge**
 - ▶ Hinders ability to integrate rehabilitation principles with their daily care
 - ▶ Lack of time for adequate education
 - ▶ Lack of professional habit of searching for specialized knowledge/scientific evidence during spare time




Results Theme 3: Factors that Influence Nurses

Sub-theme 1: Barriers and Challenges of Nursing Rehabilitation

- ▶ **Lack of recognition** of their role in the rehabilitation process


- ▶ **Devaluation** of nursing role by patients/family/caregivers, managers, interprofessional team members
 - ▶ Lack of respect for nurses
 - ▶ Minimal attention directed at what nurses think about rehabilitation
 - ▶ Budget cuts affecting nursing functions
 - ▶ Lack of leadership and management positions for nurses
 - ▶ Nurses lack of control over work environment



Results Theme 3: Factors that Influence Nurses

Sub-theme 2: Nurses' Perceptions of Their Role in Stroke Rehabilitation

- ▶ View their role as **pivotal**
 - ▶ Present 24/7, teaching and cueing patients to
 - ▶ help them relearn how to perform daily activities
- ▶ Play a **dual** role in stroke rehabilitation
 - ▶ Difficulty to meet the needs of both parties
- ▶ Serve as **liaison** to other team members and as Informal **counselors**
 - ▶ Concerned that both roles are not fully acknowledged
- ▶ Intrapersonal struggles
 - ▶ Inclination to “**do everything**” for patients
 - ▶ Difficulty “**stepping back**” due to fear of criticisms



Results Theme 3: Factors that Influence Nurses

Sub-theme 2: Nurses' Perceptions of Their Role in Stroke Rehabilitation

- Viewed as “**project managers**” for stroke patients
 - Tend to bear responsibility for organizing patient care (physical & social environment)
- **Care Coordination:**
 - Nurses felt responsible for
 - facilitating and monitoring all activities related to patient care
- **Role in Interprofessional teams**
 - central communicator
 - reporting information about patient progress
 - Advocating for patients
 - Coordinating all services



Limitations

- ▶ Only original research articles
 - ▶ written in English language and
 - ▶ published in peer-reviewed journals were included
- ▶ Included studies did not always report designations of nurses (e.g., RNs versus RPNs)
- ▶ Only studies that reported on the roles and contributions (of nurses) were included
 - ▶ Perspectives of non-nursing rehabilitation professionals, patients and families/caregivers were excluded.



Relevance to Clinical Practice

The review findings have demonstrated that:

- There is **no formal** or standardized documentation to report nursing contributions to inpatient stroke rehabilitation
- How nurses perform their care practices **is aligned** with other members of, and integral to, the interprofessional team.
- There are **factors** that impact nurses' working conditions in stroke rehabilitation units
- Nurses **lack respect**, are unsupported, and are devalued by patients, families, and the interprofessional team
- Nurses' work is critiqued **as invisible** to patients, families, and interprofessional teams

It is imperative for institutions to develop **formalized reporting** practices to recognize nursing contributions to inpatient stroke rehabilitation.

Allow nurses to have access and receive **training** on specialist stroke rehabilitation training program.

Allow nurses some control over their **work environment**, and more respect for their expertise.

Empower nurses to be **equal partners** within stroke rehabilitation teams,

Create more **leadership** and management positions for nurses,.

Educating patients/families, and interprofessional teams about the role and contributions of nurses in rehabilitation units.

Develop specific **competencies** for stroke rehabilitation nursing in Canada.



Recommendations

Future Directions

- ▶ *Expand previous qualitative study (funded by WeRPN) to Provincially compare study findings across multiple sites in Ontario.*
- ▶ Enhance Stroke Rehabilitation Interdisciplinary Teams.
- ▶ *Objectives of Proposed Study*
 1. document the practices of RPNs and RNs in rehabilitation units;
 2. explore RPNs' and RNs' perceived roles; and
 3. map nursing rehabilitation practices to internationally established rehabilitation frameworks.
- ▶ *Design: A cross-sectional design, using survey method*
- **Funding statement:**
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Potential Impact of this study

- ▶ Study will highlight the contributions of nursing staff to stroke rehabilitation process, practices, and interdisciplinary teams.
- ▶ Study will compare how Ontario's rehabilitation nursing practice aligns with international standards and competencies.
- ▶ Knowledge mobilization activities of the findings will promote visibility of the integral roles of RPNs and RNs in stroke rehabilitation nursing.
- ▶ Greater understanding of nurses' roles and practices could build and optimize capacity
 - ▶ through shared or reassigned tasks of interdisciplinary rehabilitation team members
- ▶ The findings will have implications for clinical practice, research, education, and policy.

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Evaluation

For the **Provincial Stroke Rounds Planning Committee**:

- To plan future programs
- For quality assurance and improvement
- For **You**: Reflecting on what you've learned and how you plan to apply it can help you enact change as you return to your professional duties
- For **Speakers**: The responses help understand participant learning needs, teaching outcomes and opportunities for improvement.

<https://forms.office.com/r/jU8Tag5Zf5>

Please take 2 minutes to fill the evaluation form out. Thank you!

