Succeeding in Avoiding Failure to Rescue in Parkinson's Disease Care

Heintje A. Calara MA, RN

RACE

PD nursing

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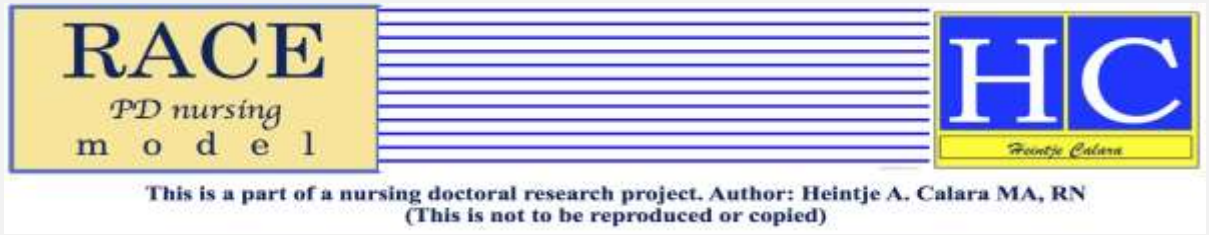
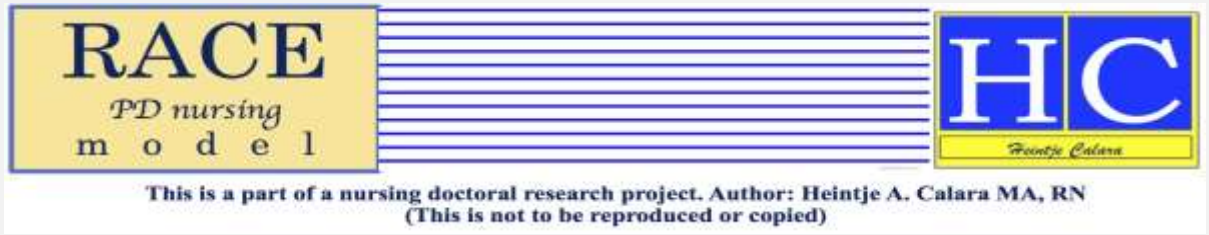


Learning outcome

- Identify the clinical issue of emergency for the Parkinson's disease patients when they are admitted in inpatient service units within the first 24° to 48° of admission.
- Describe the nursing intervention via the use of a PD nursing toolkit in avoiding failure to rescue (FTR) of the PD patients.
- Apply the theoretical framework in the nursing practice.
- Analyze and evaluate the outcome of the intervention using the practice toolkit.



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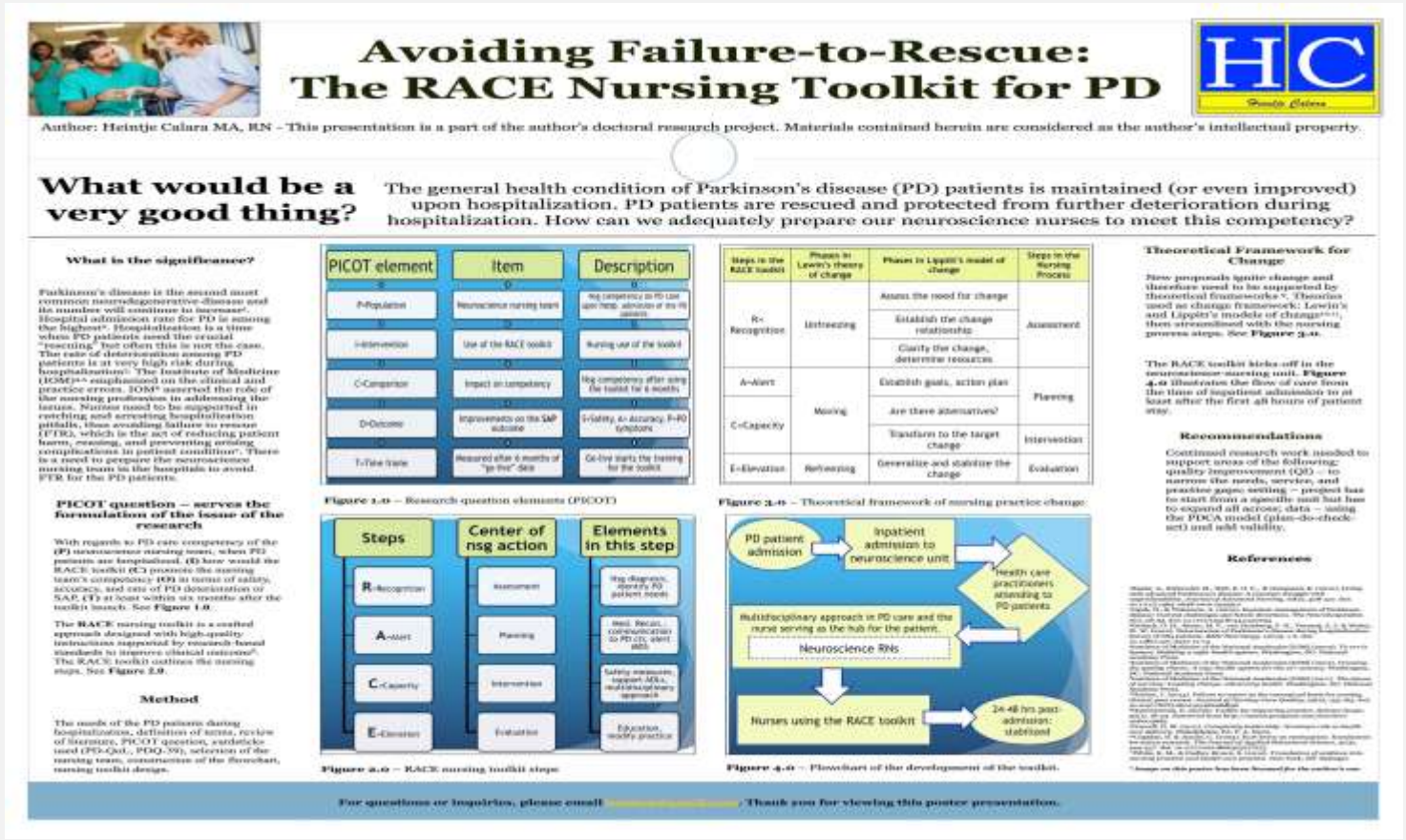

Avoiding Failure-to-Rescue: The RACE Nursing Toolkit for PD

Author: Heintje Calara MA, RN - This presentation is a part of the author's doctoral research project. Materials contained herein are considered as the author's intellectual property.

What would be a very good thing?

The general health condition of Parkinson's disease (PD) patients is maintained (or even improved) upon hospitalization. PD patients are rescued and protected from further deterioration during hospitalization. How can we adequately prepare our neuroscience nurses to meet this competency?

What is the significance?

Parkinson's disease is the second most common neurodegenerative disease and its number will continue to increase[1]. Hospital admission rate for PD is among the highest[2]. Hospitalization is a time when PD patients need the crucial "rescuing" but often this is not the case. The rate of deterioration among PD patients is at very high risk during hospitalization[3]. The Institute of Medicine (IOM)[4] emphasized on the clinical and practice errors. IOM[4] asserted the role of the nursing profession in addressing the issue. Nurses need to be supported in catching and arresting hospitalization pitfalls, thus avoiding failure to rescue (FTR), which is the act of reducing patient harm, ensuing, and preventing arising complications in patient conditions[5]. There is a need to prepare the neuroscience nursing team in the hospitals to avoid FTR for the PD patients.

PICOT question – serves the formulation of the issue of the research

With regards to PD care competency of the (P) neuroscience nursing team, when PD patients are hospitalized, (I) how would the RACE toolkit (C) promote the nursing team's competency (PD in terms of safety, accuracy, and rate of PD deterioration or SAP, (T) at least within six months after the toolkit launch. See **Figure 1.0**.

The **RACE** nursing toolkit is a crafted approach designed with high-quality instructions supported by research-based standards to improve clinical outcome[6]. The RACE toolkit outlines the nursing steps. See **Figure 2.0**.

Method

The needs of the PD patients during hospitalization, definition of terms, review of literature, PICOT question, yardsticks used (PES-Quit., PDQ-39), selection of the nursing team, construction of the flowchart, nursing toolkit design.

PICOT element	Item	Description
P-Population	Neuroscience nursing team	Nsg competency on PD care upon hosp. admission or dx of PD patients
I-Intervention	Use of the RACE toolkit	Nursing use of the toolkit
C-Comparison	Impact on competency	Nsg competency after using the toolkit for 6 months
O-Outcome	Improvements on the SAP outcome	I=Safety, a= Accuracy, P=PD symptoms
T-Time frame	Measured after 6 months of "go live" date	Go-live starts the training for the toolkit

Figure 1.0 – Research question elements (PICOT)

Steps in the RACE toolkit	Phases in Lewin's theory of change	Phases in Lippitt's model of change	Steps in the Nursing Process
R= Recognition	Unfreezing	Assess the need for change	Assessment
		Establish the change relationship	
		Clarify the change, determine resources	
A=Alert	Moving	Establish goals, action plan	Planning
C=Capacity		Are there alternatives?	
		Transform to the target change	Intervention
E=Elevation	Refreezing	Generalize and stabilize the change	Evaluation

Figure 3.0 – Theoretical framework of nursing practice change

Figure 2.0 – RACE nursing toolkit steps

Figure 4.0 – Flowchart of the development of the toolkit.

Theoretical Framework for Change

New proposals ignite change and therefore need to be supported by theoretical frameworks[7]. Theories used as change framework: Lewin's and Lippitt's models of change[8,9,10], then streamlined with the nursing process steps. See **Figure 3.0**.

The RACE toolkit kicks-off in the neuroscience nursing unit. **Figure 4.0** illustrates the flow of care from the time of inpatient admission to at least after the first 48 hours of patient stay.

Recommendations

Continued research work needed to support areas of the following: quality improvement (QI) – to narrow the needs, service, and practice gaps; setting – project has to start from a specific unit but has to expand all across; data – using the PDCA model (plan-do-check-act) and add validity.

References

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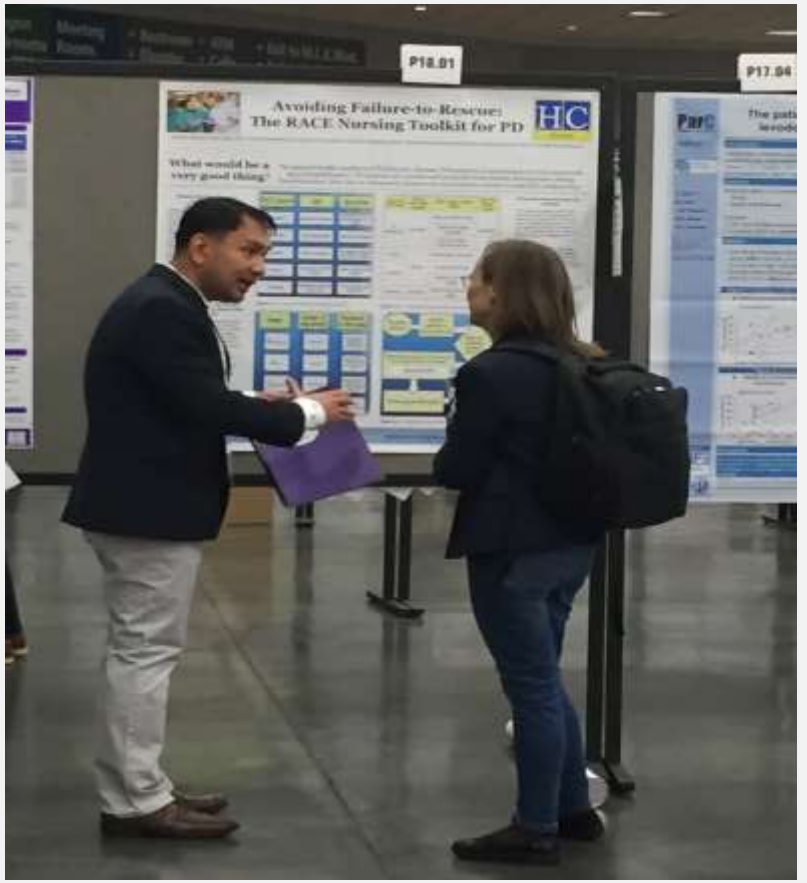

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Actual statement of a female Parkinson's patient.

"My friends stopped seeing me. My husband has been quite distant from me. I feel so alone and helpless sometimes. Please don't drop me too."

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Actual statement of a male Parkinson's patient.

"My Parkinson's is always there even when I sleep. It's always there even in my dreams; physically and mentally. It's a constant shadow"

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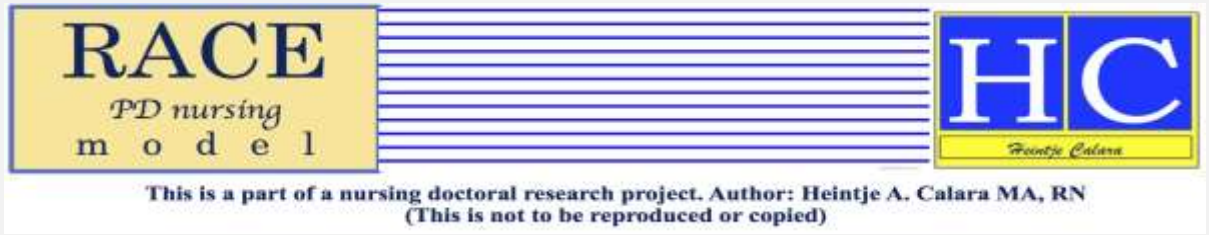
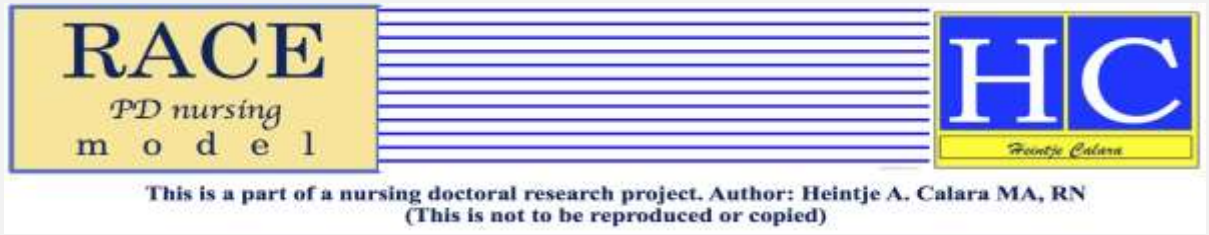
Parkinson's disease (PD)

- Chronic and progressive debilitating neurologic disease affecting the substantia nigra, the organ in the brain stem responsible for the production of neurotransmitter dopamine (Antony, Diederich, Kruger, & Balling, 2013).
- 2nd most common neurodegenerative disease, second only to Alzheimer's.
- Affecting about 1 million Americans with est. 60,000 new diagnosed each year (PDF, 2015)
- Affects men more than women (about 1.5x higher).



Parkinson's disease (PD)

- More people are getting diagnosed and more younger people are getting diagnosed with PD (≤ 40 y/o).
- TRAP – the most common sign and symptoms (T=tremors, R=rigidity, A=akinesia, P=postural changes)
- Motor and non-motor symptoms
- Non-motor symptoms – more difficult to reconcile (e.g. memory impairment, apathy, sleeplessness, hyposmia, hypomimia, dysarthria, dysphagia, diaphoresis, constipation, et al.).
- ”On and Off” phenomenon – motor fluctuations.



Failure to Rescue (FTR) - PD

- From the view of reducing patient harm, described as the clinician's ineffectiveness in catching, ceasing, and preventing complications from arising in patient conditions (Thielen, 2014; IOM, 2000, 2001).
- Avoiding FTR of PD patients from deterioration within the first 24 to 48° of inpatient admission (Gerlach, Broen, van Domburg, Vermeij, & Weber, 2012).
- PD patients are admitted as inpatients = 1.5% higher admission rates than the general population (Oguh & Videnovic, 2012).
- Clinical pitfalls lie in the clinicians' lack of familiarity of the disease (Ahlskog, 2014).

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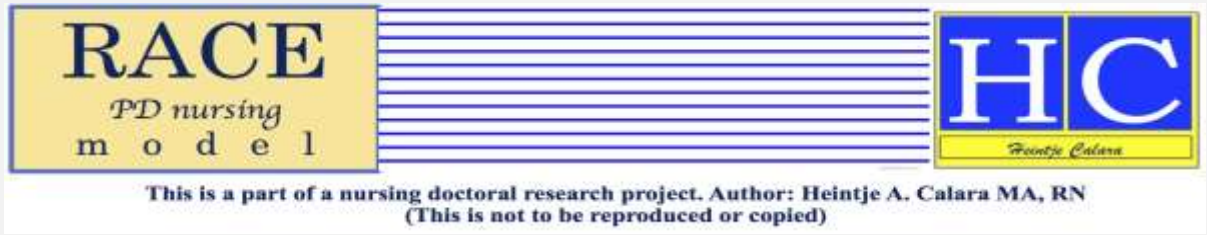
Significance of the problem

- PD management and care – usually in the outpatient setting
- ICD- 332.0 (idiopathic Parkinson's) – alone or as a primary diagnosis is not reimbursable in the inpatient setting.
- PD – Most hospitals are not confident on the quality of PD care in inpatient settings (Chou et al., 2011).
- Notification of hospitalization more often came from patient and/or family, rather than from physicians.
- Clinical inadvertence – medication mismanagement, misinterpretations of PD symptoms, inaccurate diagnoses, etc.
- PD care – requires highly rigorous multidisciplinary care (Carne et al., 2005)



PD fall rate: A study from 2008 to 2011

- A retrospective study with **n size** = 28,280 samples.
- US based study with data provided by Truven Health Market Scan, a raw data collection system.
- Est. PD falls = 60.5% of the sample, with 39% recurrent falls.
- Fractures in PD – estimated to be 2x the average risk.

Kalilani, L., Asgharnejad, M., Palongkas, T., & Durgin, T. (2016). Comparing the incidence of falls/fractures in Parkinson's disease in the US population. *PLoS One, 11*(9), 1-11. doi: 10.1371/journal.pone.0161689

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Nursing Toolkit

- A crafted approach especially designed with high-quality instructions and procedures, based upon research-based standards intended to improve clinical performance and outcome (Hammerman, 2006).
- Nurses can use at the time and point of crucial need of PD nursing care.
- **EBP question** – With regards to the PD competency of nurses at the time when PD patients are admitted in inpatients units, how would the RACE toolkit affect and promote nursing PD competency, as compared to not using any toolkit resource at all?

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PD RACE Nursing Toolkit

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RACE Toolkit

- **Recognition** – Nursing diagnosis, checking history, pt. dx (primary, secondary, tertiary).
- **Alert** – medication alerts, prompt notification/communication made to the PD center or movement disorders center, or the PD resource (physician or NP).
- **Capacity** – Safety measures, mobility, speech, swallowing, dietary, psychology, social work, etc. Centered on the multidisciplinary approach.
- **Elevation** – Education (nurses educating each other by sharing PD experiences, cultivating the toolkit at hand, survey the previous PD experience as compared to the new one, use for training, etc.)

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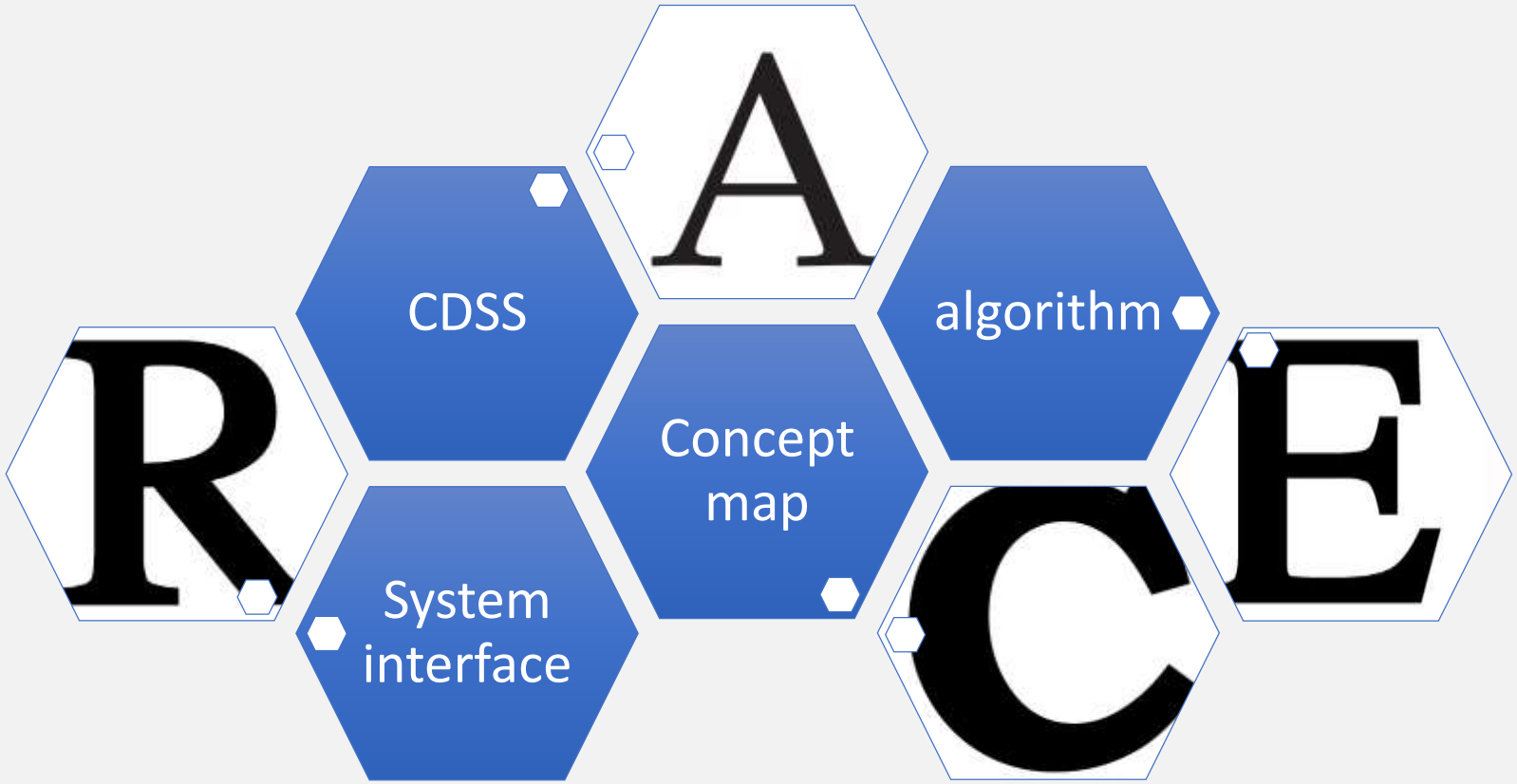
What are the moving parts of the toolkit?



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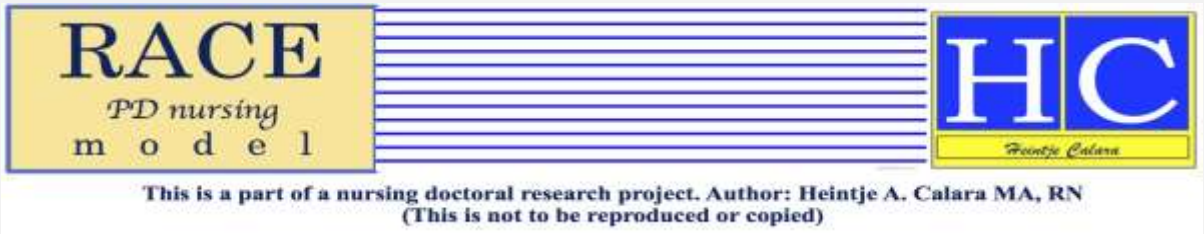
Kurt Lewin's model of change – Theoretical framework

- Lewin's theory of change involves implementation change with the ***facilitators (f)*** and the ***barriers (b)***. (Yoder-Wise, 2015).
- Facilitators **(f)**– those that are advocating for the change.
- Barriers **(b)**– those that are opposed.

(f) > (b) = 

- The phases in the change process of this theory (White & Dudley-Brown, 2012).
- **(1) Unfreezing** – state of equilibrium is changed
- **(2) Moving** – when the process of change is in progress
- **(3) Refreezing** – state of equilibrium is re-established



RACE toolkit – theories relating to the nursing process

Steps in the RACE toolkit	Phases in Lewin's theory of change	Phases in Lippitt's model of change	Steps in the Nursing Process
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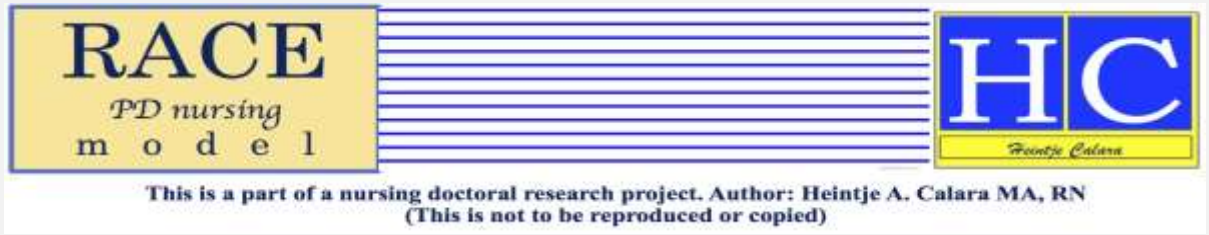
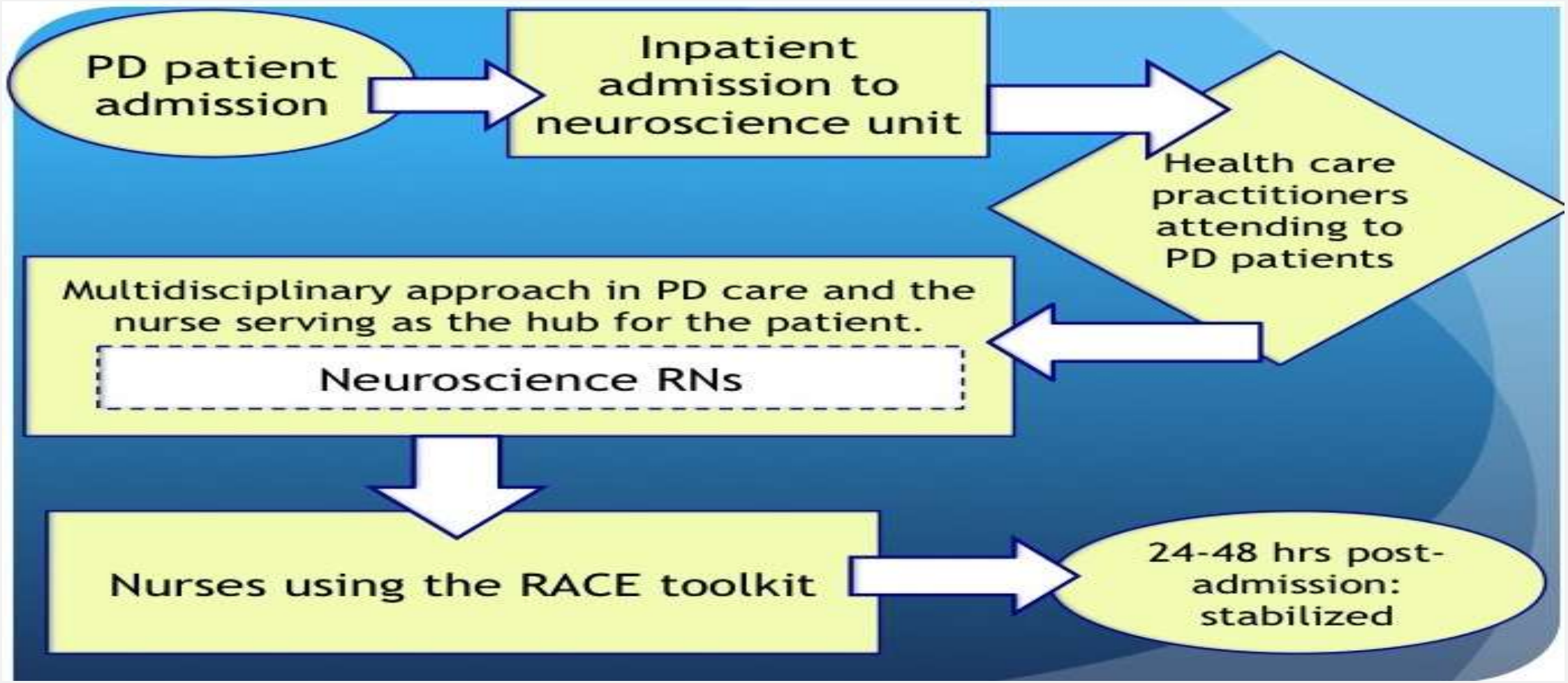
Method for the construction of the RACE toolkit

- The following data used:
  - The needs of the PD patients during hospital admissions
  - Definition of terms (this also includes the concept maps)
  - PD - Quality of life (PD-QoL) questionnaire
  - PD questionnaire – PDQ-39
  - Hoehn & Yahr Scale
  - UPDRS – Unified Parkinson's disease Rating Scale
  - Selection of nursing patient services for the pilot of the toolkit.
  - Construction of the flowchart
  - Design of the toolkit
  - Formulating the EBP question



Flowchart



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Outcome measures

S

Safety

- Fall incidence is the benchmark for this comparison

A

Accuracy

- Were the PD team promptly notified or contacted?
- The PD team for this patient may also be from another institution.

P

PD symptoms

- Any improvement on the patient's PD symptoms
- Changes in the PD scales (Hoehn & Yahr Scale and the UPDRS)

Future recommendations and changes

- Personal digital assistant (PDA) guidelines or clinical pathway flowchart.
- Project charter for the implementation phase – this is institution-specific.
- Movement disorders nursing as a specialized nursing practice.

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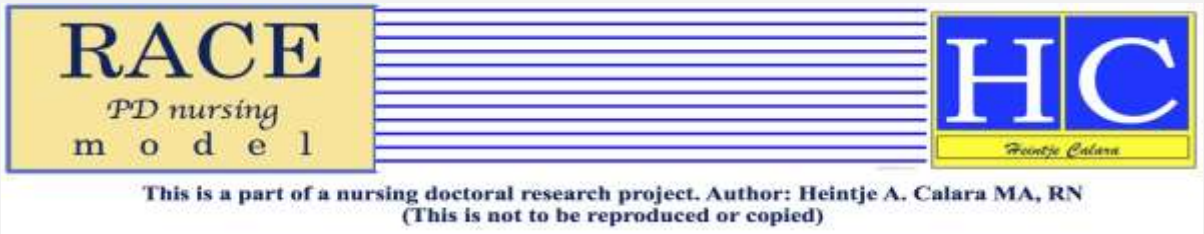

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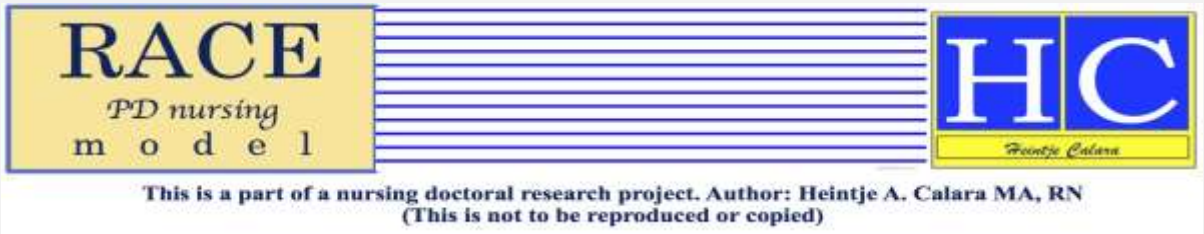

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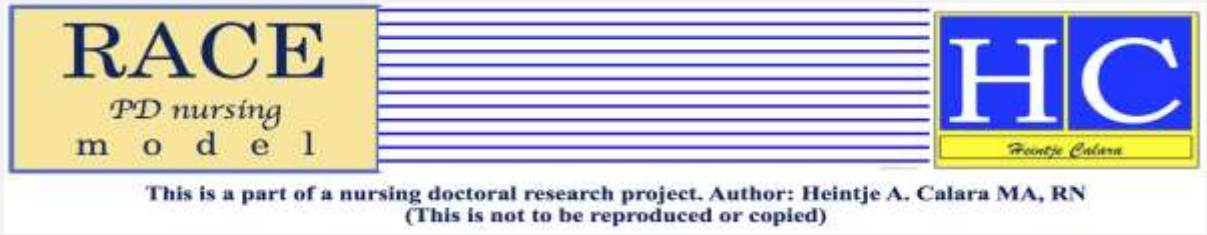

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