

Building Capacity for Effective APN Role Design, Implementation, & Evaluation: The PEPPA Framework

Hong Kong Polytechnic University - May 10, 2019

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Explore the Beauty of Hamilton's Waterfalls



Objectives

- ✓ Identify the need for systematic approaches to design, implement, and evaluate advanced practice nursing (APN) roles
- ✓ Provide an overview of the PEPPA and PEPPA-Plus Frameworks to provides a systematic approach
- ✓ Share examples of how PEPPA can be used in graduate education and in practice to optimize the utilization of APN roles



Systematic Reviews: Outcomes of Well-Designed APN Roles

- ✓ Improved patient and provider satisfaction
- ✓ Better patient health: morbidity, mortality, quality of life, physical function, and self-care
- ✓ Increased patient and provider adherence to best practices

(Bryant-Lukosius et al., 2015; Donald et al., 2013, 2014 & 2015; Kilpatrick et al., 2015; Martinez-Gonzalez et al., 2013; Martin-Misener et al., 2015; Newhouse et al., 2011)

Systematic Reviews: Outcomes of Well-Designed APN Roles

- ✓ Improved quality of care
- ✓ Improved continuity and coordination of care
- ✓ Reduced acute care service use and costs
- ✓ Increased use of outpatient/home/community services that best meet patient needs

(Bryant-Lukosius et al., 2015; Donald et al., 2013, 2014 & 2015; Kilpatrick et al., 2015; Martinez-Gonzalez et al., 2013; Martin-Misener et al., 2015; Newhouse et al., 2011)

Global Barriers to Health System

Integration of APN Roles (Bryant-Lukosius & Wong, 2019)

- ⦿ Lack of understanding about APN roles
- ⦿ Disease/medically focused health systems
- ⦿ MD resistance, high numbers of MDs
- ⦿ Societal role of women
- ⦿ Capacity to provide APN education/mentorship
- ⦿ Funding policies, legislation, regulation
- ⦿ Lack of leadership



Common APN Role Implementation Problems

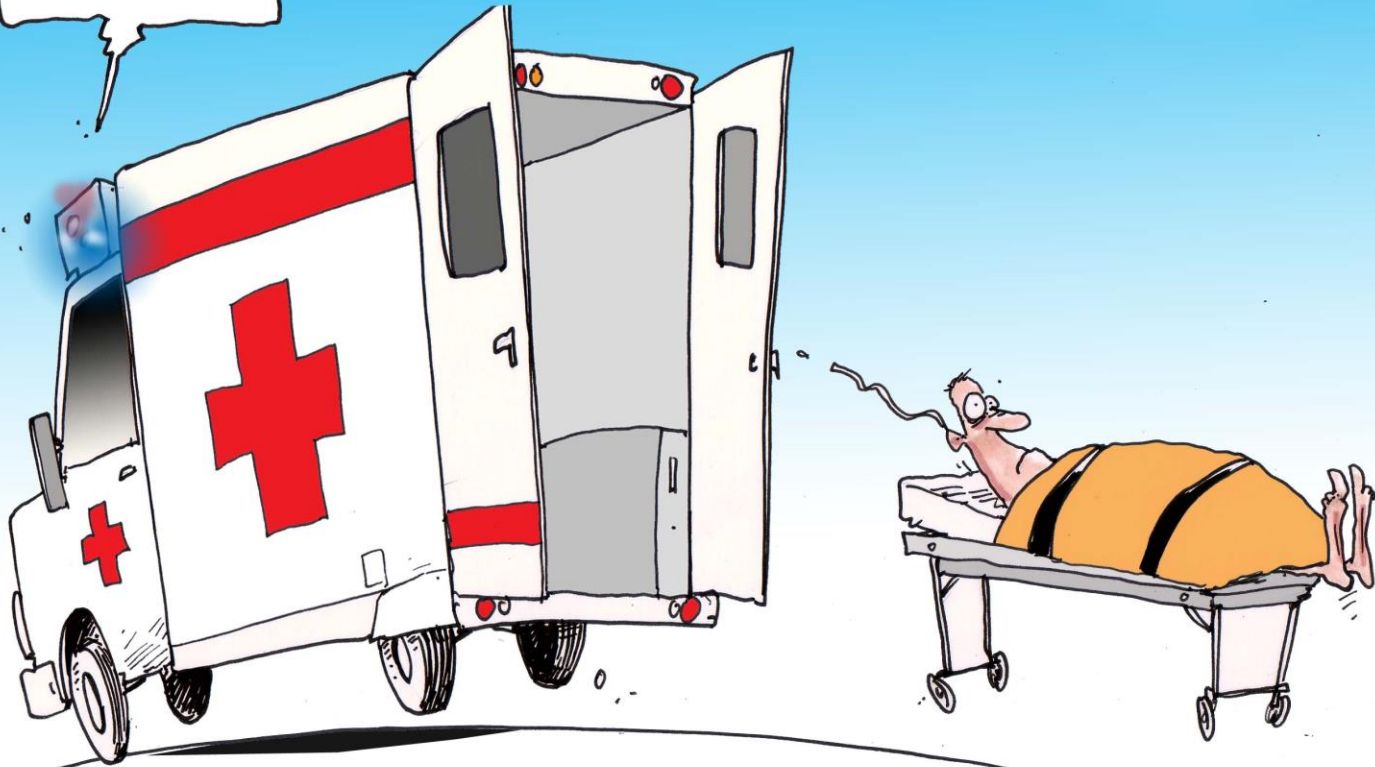
(Bryant-Lukosius et al., 2004; DiCenso et al., 2010)



- ⦿ Confusion about the purpose of APN roles
- ⦿ Lack of defined role goals and expectations
- ⦿ Role emphasis on MD replacement/support
- ⦿ Under use of all role dimensions and expertise
- ⦿ Failure to address role barriers
- ⦿ Limited use of evidence to guide role development

ROLE CLARITY

... NO...
IT'S YOUR
JOB TO CLOSE
THE DOORS...

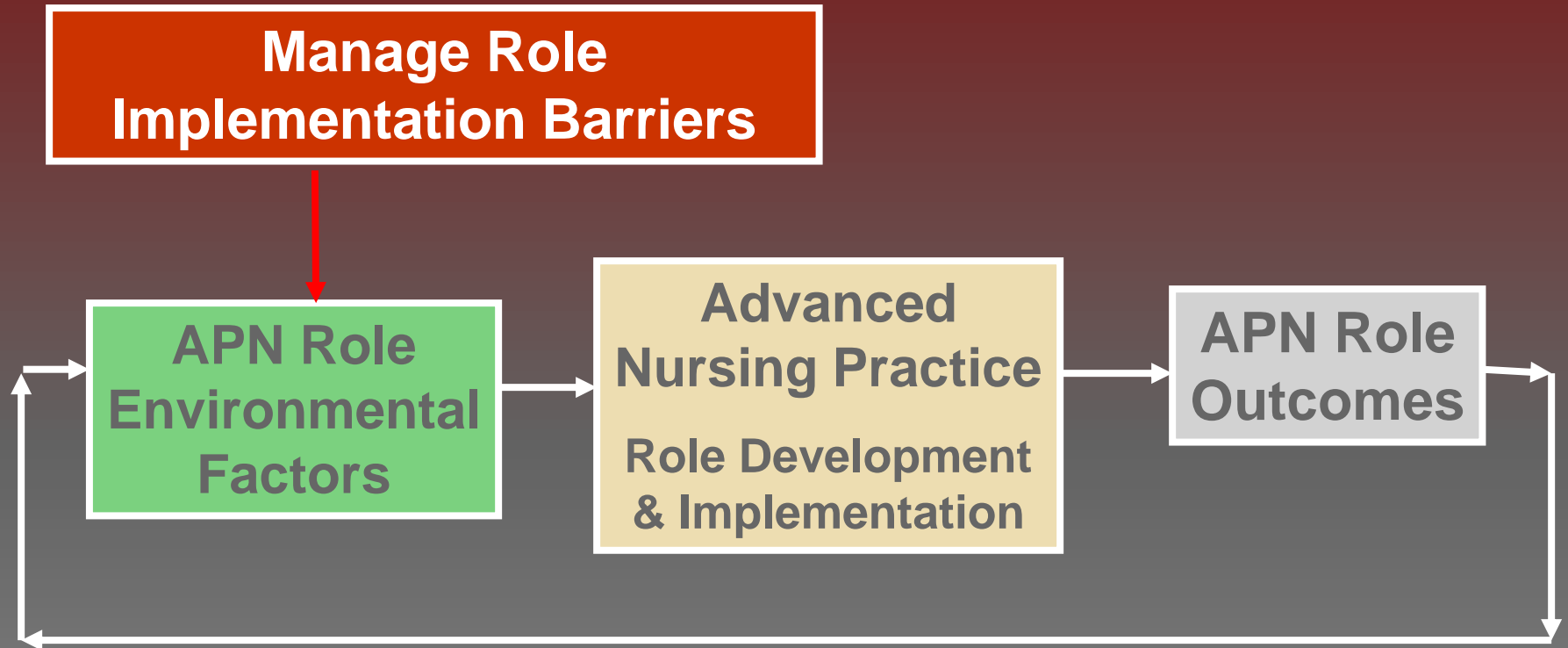


Facilitating APN Role Implementation

(Lloyd Jones, 2005)

- ◎ Meta-synthesis of international qualitative studies of specialist and APN role implementation
- ◎ Role clarity and relationships with stakeholders were the most common factors important for role success:
 - > Requires clear role definitions
 - > Clear communication about role expectations
 - > Clear understanding of the role is necessary for stakeholder role support and acceptance
 - > Clear lines of authority and reporting mechanisms

Concepts for APN Role Implementation



Systems Model of APN, Bryant-Lukosius, 2003

The Costs of Poor Planning



- ◎ Unrealized opportunities for innovation
- ◎ Loss of benefit from APN expertise for patients, providers, and health system
- ◎ Ineffective use of a limited resource
- ◎ Negative impact on long-term sustainability

Bryant-Lukosius et al., 2004

Need for New Approaches to APN Role Development



- ⦿ **Consistent themes about barriers to developing and implementing APN roles in global literature**
- ⦿ **Many barriers could be avoided through improved role planning and better understanding of APN roles**

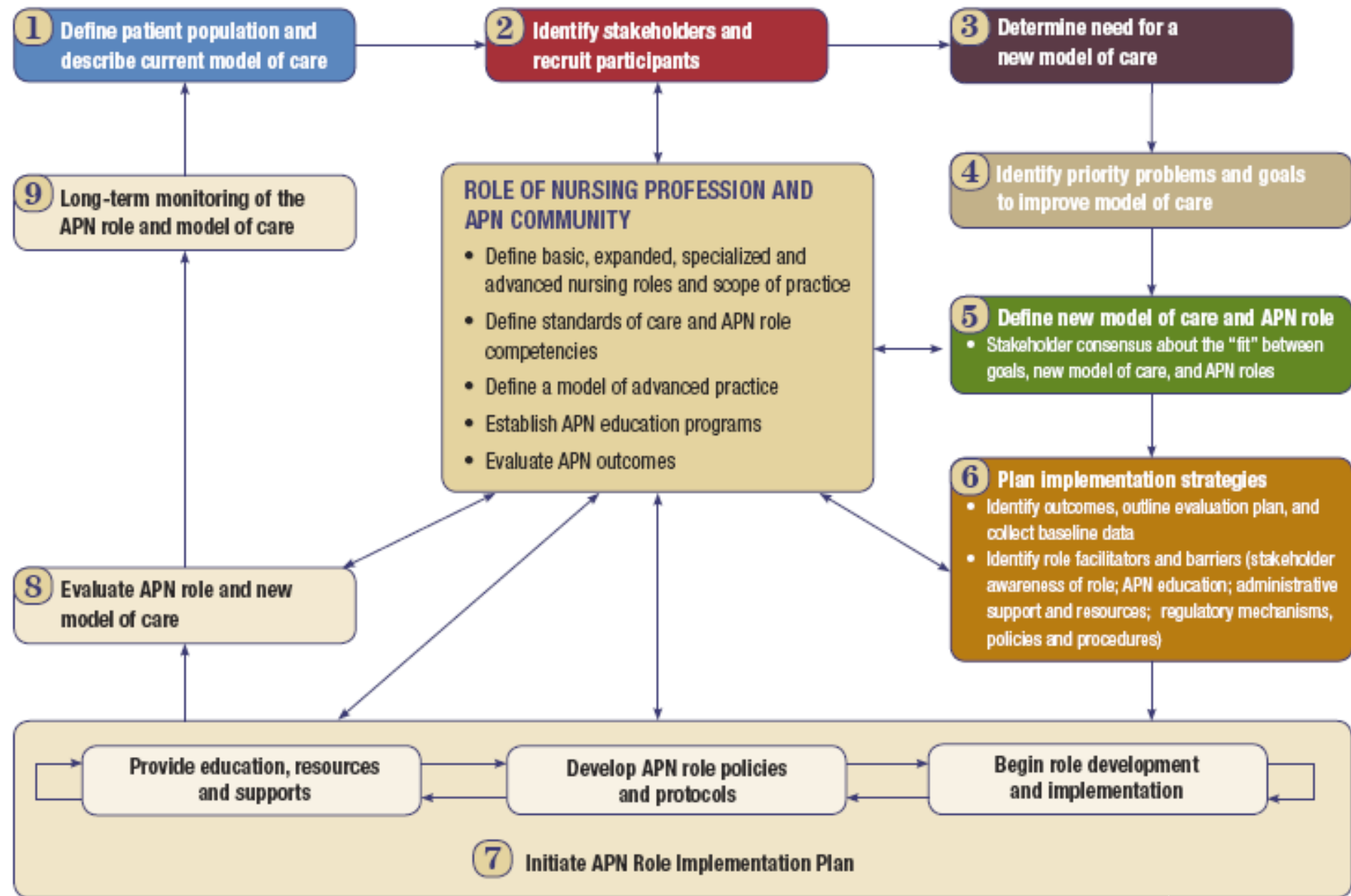
(Bryant-Lukosius et al., 2004; Bryant-Lukosius & Wong, 2019)



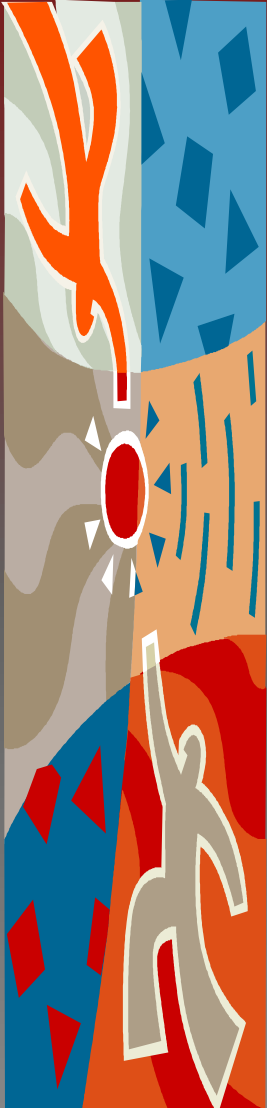
Recommendations for Introducing APN Roles

- ① Identify the need and goals for a clearly defined APN role
- ② Develop a strong nursing orientation to practice
- ③ Optimize use of all role dimensions, expertise, scope of practice
- ④ Create environments to support APN role development within the team, practice setting, and health care system
- ⑤ Monitor and evaluate APN role progress in achieving pre-determined outcome-based goals

The PEPPA Framework



The PEPPA Framework (Bryant-Lukosius, 2004)



- ◎ **P**articipatory, **E**vidence-based, **P**atient-centred **P**rocess for **A**PN role development, implementation and evaluation
- ◎ **P**inciples of PAR
 - > **S**ocial justice
 - > **P**romote health and social change
 - > **E**quitable distribution of power and contribution of stakeholders in the change process

The PEPPA Framework

- ⦿ Patient needs and goals for health are the focus of activities
- ⦿ Nursing and goal orientation to practice
- ⦿ Considers the impact of APN environments
- ⦿ Strategies to develop the multi-dimensions of APN roles
- ⦿ Evaluation theory (structure-process-outcome)

PEPPA: Nursing and Human Resource Planning

- ◎ Collaborative decision-making with stakeholders
- ◎ Ensure target population health needs are foundational to any process
- ◎ Consider environmental trends and drivers
- ◎ Systems approach to ensure comprehensiveness planning and the assessment of outcomes

(Advisory Committee on Health Delivery & Human Resources, 2007; O'Brien-Pallas et al., 2001)

APN Roles as Complex Healthcare Interventions

(Bryant-Lukosius et al., 2017)

Medical Research Council Guidelines (2007)

- ⦿ Define the problem
- ⦿ Define and optimize the intervention
 - > assumptions about how the intervention may work
- ⦿ Optimize the evaluation
 - > Determine outcomes, design and test evaluation measures
- ⦿ Evaluate and determine needs to refine intervention and its uptake

PEPPA: Step 1

☉ Define Patient Population & Describe Current Model of Care

> Model of Care

- patient entry into health system
- patient interaction with providers and services
- a specific continuum of care

> Frame the scope of the process

- define specific patient population
- time period along care continuum
- team, organizational, and/or geographic perspective

PEPPA: Step 2

◎ Identify Stakeholders & Recruit Participants

- > Consider wide range of stakeholders across professional, organizational, and health systems
- > Consider the balance between medical and other viewpoints
- > Include patients and families as consumers of health services
- > Select facilitator to lead the process

PEPPA: Step 3

◎ Determine Need for a New Model of Care

- > Identify patient and family health needs
- > Factors that contribute to unmet needs
- > Severity and consequences of unmet needs
- > Stakeholder perceptions of unmet needs

PEPPA: Step 4

☉ Identify Priority Problems and Goals

- Consensus on problems and importance of these problems or barriers to meeting patient health needs
- Consensus on desired goals for addressing these problems

PEPPA: Step 5

🕒 Define the New Model of Care and Nursing Role

- > Are new care practices or care delivery strategies required?
- > Can existing roles implement these changes?
- > How would an APN role strengthen the model of care and help to achieve goals?
- > Is an APN role a good fit with the new model?
- > What are advantages/disadvantages of APNs vs other nursing or health care provider roles?

PEPPA: Step 6

◎ Plan Implementation Strategies

> Outline evaluation plan

- Goals and structure-process-outcome measures, time line, baseline data, resources

> Identify role barriers and facilitators

- Stakeholder awareness
- APN education
- Administrative supports and resources
- Regulatory mechanisms, policies, and procedures

> Identify implementation strategies

PEPPA: Step 7

🕒 Initiate Role Implementation Plan



PEPPA: Step 8

◎ Evaluate Role and New Model of Care

- > **Structures:** resources, physical environment, supports, APN & patient characteristics, role barriers and facilitators
- > **Processes:** type, intensity and frequency of activities in all role domains
- > **Outcomes:**
 - Patient, APN, health care provider, health systems perspectives
 - Safety and efficacy, acceptance, satisfaction, costs, role transfer
 - Specific goal related outcomes
 - APN sensitive outcomes
- > **Monitoring role performance**

PEPPA: Step 9

◎ Long-term Monitoring of Role and Model of Care

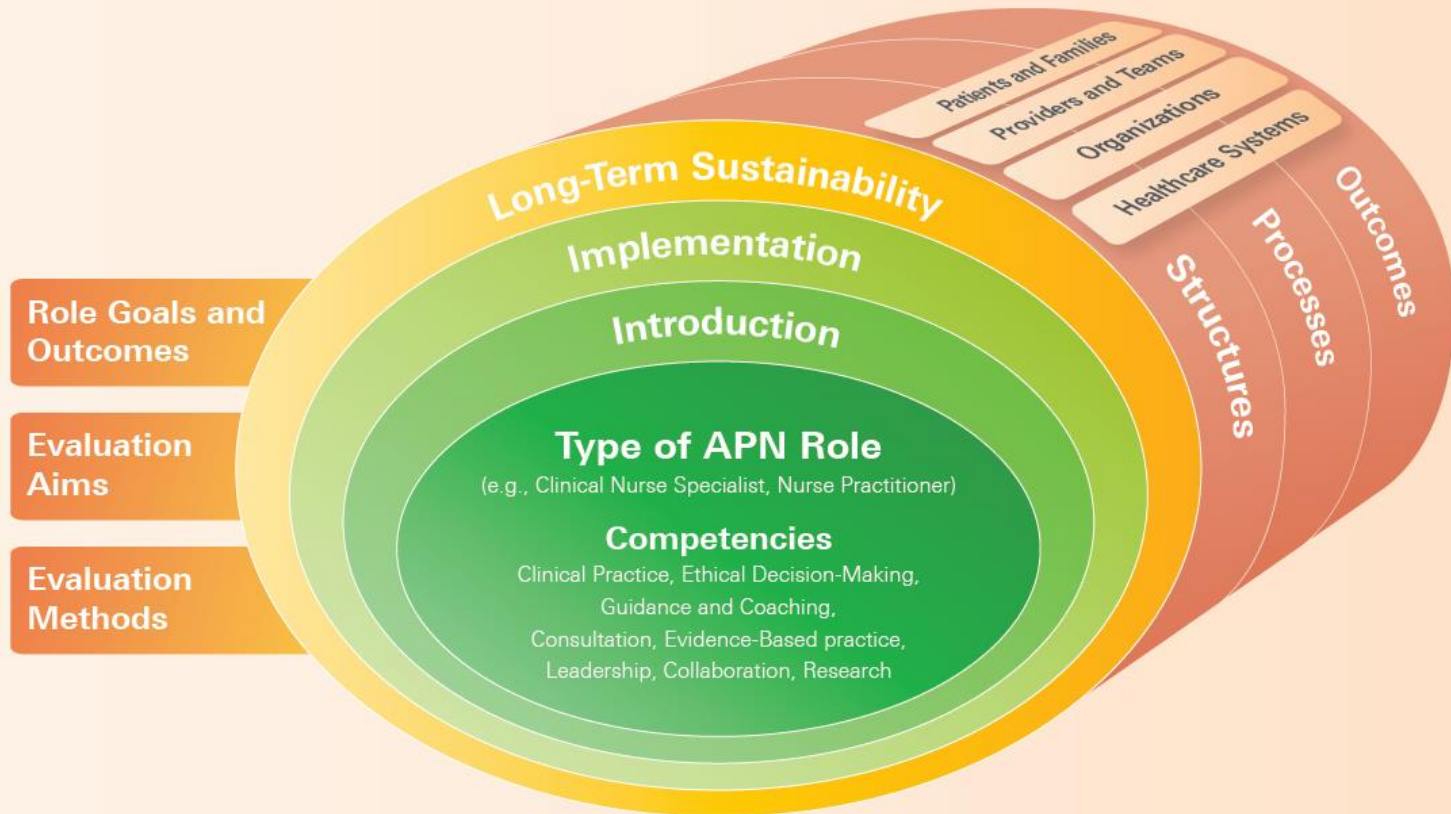
- Safety, satisfaction, sustainability of role
- Maintaining a common vision of the role
- Identifying needs for revision
- Identifying needs for new supports



APN Role Evaluation Work Group – Basel Switzerland 2013

PEPPA Plus: Enhanced Guidance for APN Role Evaluation (Bryant-Lukosius et al., 2016)

Evaluation Framework Matrix – Key Concepts for Evaluating Advanced Nursing (APN) Roles



Framework Application Tools

For each of the 3 role development stages:

- Examples of structures, processes and outcomes
- Evaluation questions

Evaluation plan template

Case study demonstrating framework application across the 3 stages



Use of the PEPPA Framework

(Boyko, Carter & Bryant-Lukosius, 2016)

- ◎ 164 citations from the published and gray literature
- ◎ 70% from peer reviewed publications
- ◎ 16+ countries
- ◎ Describe framework application by:
 - > Government agencies, healthcare institutions, professional associations, universities
 - > APNs, researchers, educators, policy-makers, healthcare administrators, other advanced providers

高度実践看護師の役割開発と 活動領域の拡大を目指して

「PEPPA フレームワーク」活用のすすめ

Suggestion to use PEPPA framework for development and to expand the role of Japanese APNs

筆者は日本での臨床経験の後、カナダに渡り、現在は高度実践看護師であるナース・プラクティショナーとしてプライマリ・ケアをフィールドに活動している。本稿では、高度実践看護師の役割開発と活動領域の拡大に有効な「PEPPA フレームワーク」を紹介する。加えて、日本における高度実践看護師の今後の役割開発について考察する。

Introduction

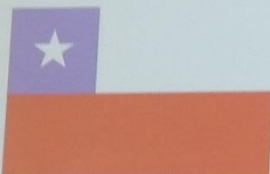
Expanding the Roles of Nurses in Primary Health Care



Pan American
Health
Organization



World Health
Organization
REGIONAL OFFICE FOR THE
Americas



A coordinated strategy in Chile to implement APN in Primary Health Care using the PEPPA framework

Francisca Aguirre B.

M. Consuelo Cerón M.

Facultad de Enfermería y Obstetricia
Universidad de los Andes, Santiago-Chile

Joyce Pulcini

George Washington University School of Nursing

Denise Bryant-Lukosius

Mc Master University School of Nursing

August 29th 2018, Rotterdam



Universidad de
los Andes

> FACULTAD
DE ENFERMERÍA
Y OBSTETRICIA



PEPPA Framework Applications

◎ APN Education Curricula

> Roles and Responsibilities

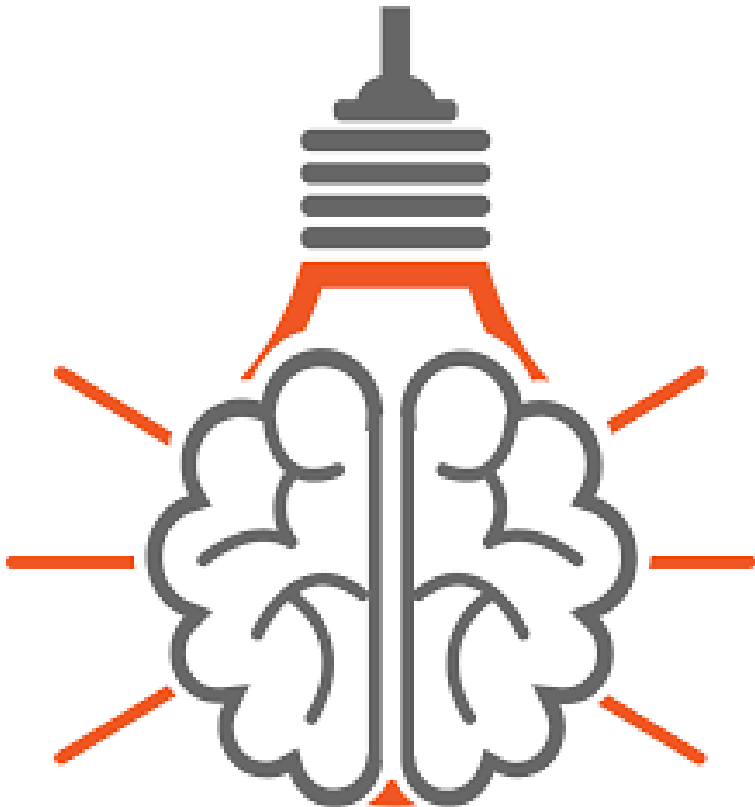
- Leading the introduction of your APN role
- Engaging with stakeholders
- Conducting a needs assessment
- Use of logic model to design/articulate APN role
- Developing a role implementation plan
- Influencing policies to support APN roles

> Research and Evaluation

- Framework for APN related thesis projects
- Principles for role evaluation
- Determining outcomes for role evaluation
- Identify stage of role development and goals for evaluation



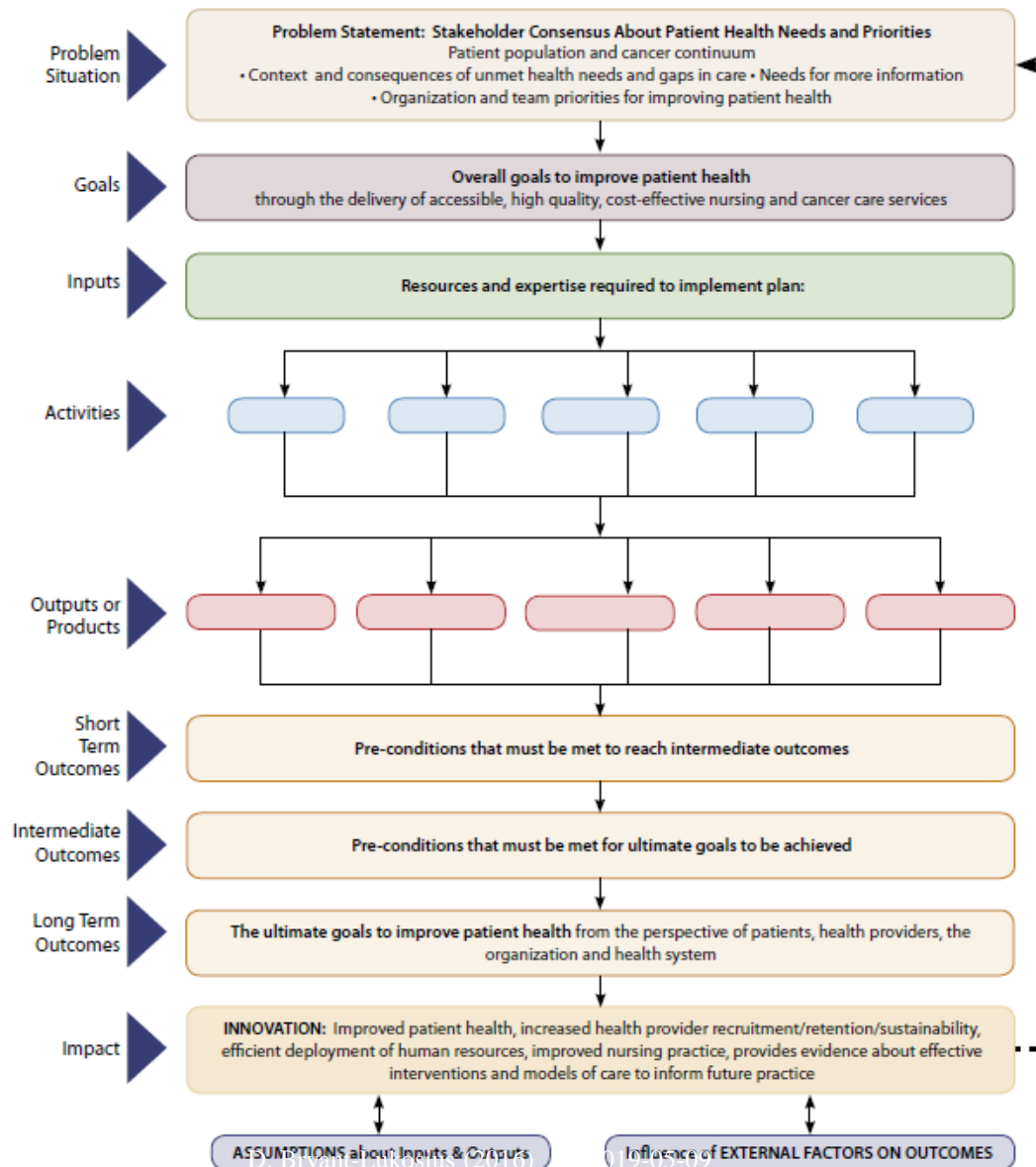
Logic Models: A Tool for Effective ANP Role Design, Implementation and Evaluation



**ANP Role Development Course
Institute of Nursing Sciences
University of Basel**

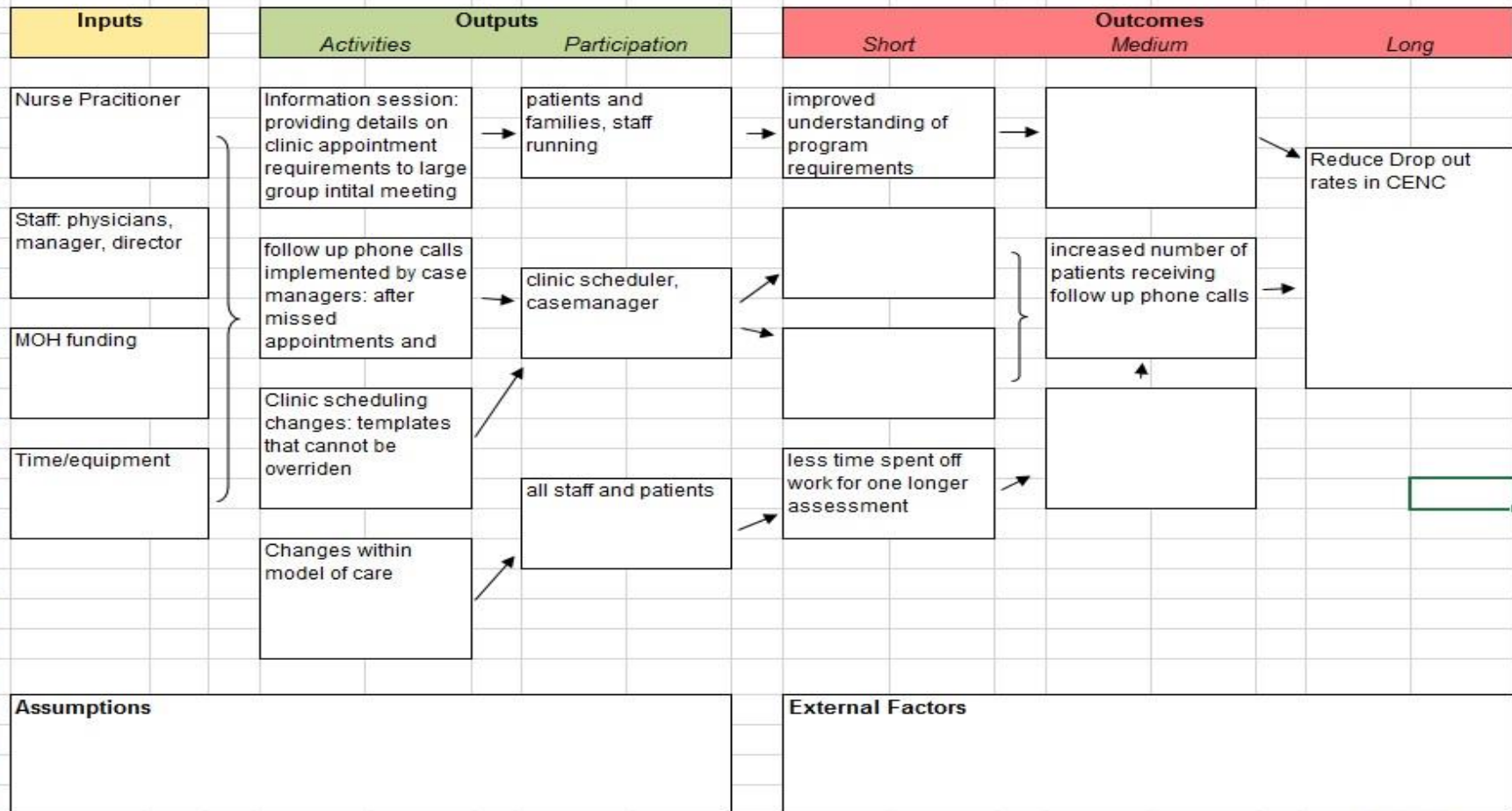
Denise Bryant-Lukosius, RN PhD
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Co-Director Canadian Centre APN Research
McMaster University
Hamilton, Ontario. Canada

Logic Model for Advanced Practice Nursing (APN) Role Development, Implementation and Evaluation



Program: (name) _____ **Logic Model**

Situation: High number of drop out rates in long term clinical treatment in obesity weight management program for children 0-18 years of age; related to high number of appointments scheduled, involvement of large interdisciplinary team, work demands of parents/guardians, distance travelled to clinic appointments, and in clinic scheduling challenges resulting in inability to meet MOH standards of care.
Goal Statement: To improve drop out rates of children enrolled in CENC through improved understanding of program requirements, appointment follow ups and clinic management.

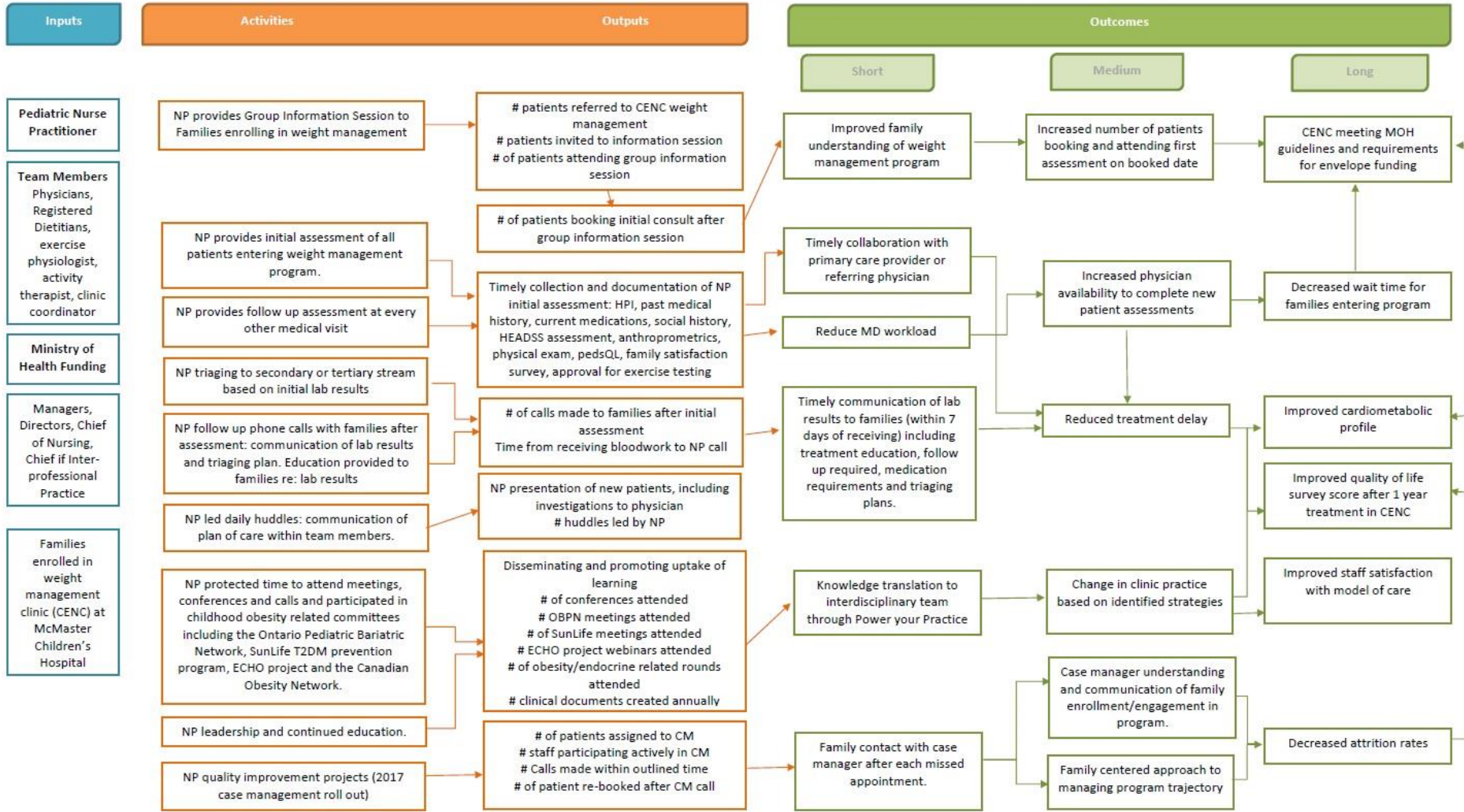


Rev. 7/09

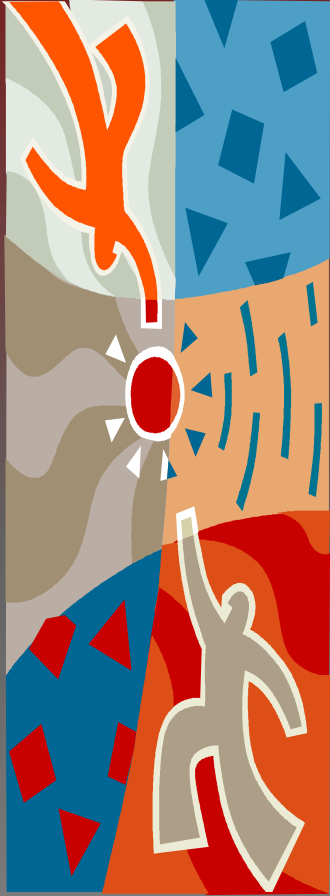
Situation: Childhood overweight/obesity has increased over the last several decades within Canada and worldwide. Without effective treatment there are serious health implications, including increased risk of diabetes, heart disease, sleep apnea, diabetes and emotional health problems (bullying, anxiety, depression). The Children's Exercise and Nutrition Program offers a two year, interdisciplinary approach to treating weight management in a tertiary care outpatient clinic. Goal: To provide a comprehensive weight management program to children 0-18 years old with the goal of reaching improved health outcomes while meeting ministry of health requirements, in a timely and effective manner to both the patient and families.

Children's Exercise and Nutrition Logic Model

Carline Bozzato, RN (ec), MN, NP-Pediatrics



PEPPA Framework Applications



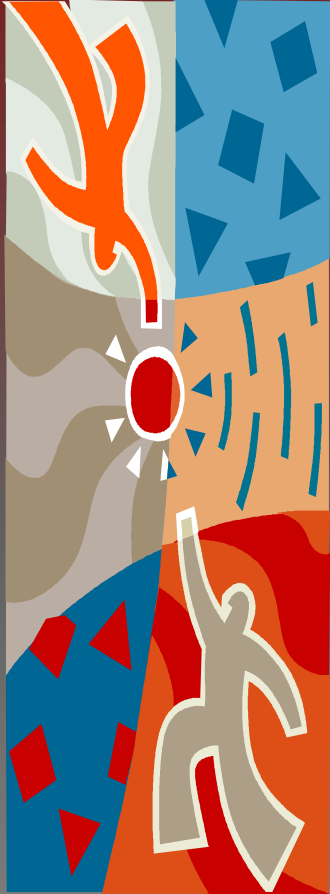
◎ APN Practice and Policies

- > Health care agencies
- > Professional associations
- > Provincial governments

◎ Other Advanced Health Provider Roles

- > Physio and occupational therapists
- > Radiation therapists
- > Physician assistants
- > Dieticians

PEPPA Framework Applications



APN Research

- ⦿ Determining research priorities
- ⦿ Formulating research questions

- ⦿ Data Collection Tools

- ⦿ Toolkits
 - > APN Chair Research Toolkit
 - > Oncology APN Role Implementation Toolkit
 - > Primary Health Care Nurse Practitioner Implementation and Evaluation Toolkit

PEPPA Framework Applications

- ◎ Primary care (Sawchenko et al., 2011)
- ◎ Long-term care (Donald, 2007; Donald & Martin-Misener, 2007; McAiney et al., 2008)
- ◎ Oncology (Bakker, 2009; Bryant-Lukosius, 2007; Carter, 2008; Martelli, 2007)
- ◎ Cardiology (McNamara et al, 2009)
- ◎ Complex pediatric care clinic (Greasley-Jones, 2013)
- ◎ Anticipatory (risk prevention) medical-surgical care (Feistritz, 2014)
- ◎ Other advanced provider roles
 - > Physiotherapist roles in joint replacement (Robarts et al., 2008)
 - > Physician assistants and NPs in Emergency Departments (Ducharme et al, 2009)
 - > Dieticians (Wildish & Evers, 2010)

Benefits of PEPPA Framework Use

- ◎ Plan and anticipate important steps in role design, implementation and evaluation
- ◎ Promotes APN role clarity and agreement about role priorities
- ◎ Promotes APN role understanding, acceptance and support through stakeholder engagement

(Bakker et al., 2009; Ducharme et al., 2009; McAiney et al., 2008; McNamara et al., 2009; Robarts et al. 2008; Sawchenko et al., 2011)

Benefits of Framework Use

- ◎ Promotes improved team function, care coordination and patient satisfaction
- ◎ Identifies ways to minimize barriers and maximize facilitators for role implementation

(Bakker et al., 2009; Ducharme et al., 2009; McAiney et al., 2008; McNamara et al., 2009; Robarts et al. 2008; Sawchenko et al., 2011)

ADVANCED PRACTICE NURSING (APN) Data Collection Toolkit



CHSRF/CIHR Chair in
Advanced Practice Nursing

A compendium of common instruments to measure dimensions of APN for policy makers, managers, researchers, APNs and graduate students involved in APN role development, implementation and evaluation

WHAT IS IT?

A compendium of research instruments or tools used in APN related research. Since searching for instruments using electronic databases can be time consuming, we have developed a web-listing that gives you quick access to APN related data collection tools. The tools are organized to inform development, implementation, and evaluation of advanced practice nursing based on the PEPPA framework¹.

HOW MIGHT THIS TOOLKIT HELP ME?

The APN Toolkit provides tools to support every step of the APN role implementation process: 1) needs assessments to determine the need for the APN role, 2) surveys to plan for implementation, 3) practice pattern instruments to assess role implementation, 4) outcome measures to evaluate patient satisfaction, health provider satisfaction, health status, quality of life, quality of care, health systems outcomes, costs and others.

WHAT INFORMATION IS LISTED FOR EACH TOOL?

Along with the name and reference of the tool, we have listed all available information about the psychometric properties of the instrument and how it is administered. Also listed are other APN studies that have used the tool as well as author contact information, price and availability. Where authors have granted permission, there is a PDF of the instrument available. Additionally, if the full-text of the article is available for free on the web, we have included a link to it.

WHERE CAN I FIND THE TOOLKIT?

Via the APN Nursing Chair website,
<http://www.apnnursingchair.mcmaster.ca>
Look for the red button that says "Click here to enter the APN Toolkit".

WHO CAN I CONTACT FOR MORE INFORMATION?

Julie Vohra, Program Coordinator
CHSRF/CIHR Chair Program in Advanced Practice Nursing
School of Nursing, McMaster University
Health Sciences Centre, Office 3N25M
1200 Main Street West
Hamilton, ON L8N 3Z5
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We gratefully acknowledge the British Columbia Ministry of Health Services for their generous funding support of this project.

1 Bryant-Lukosius, D., & DiCenso, A. (2004). A framework for the introduction and evaluation of advanced practice nurse roles. *Journal of Advanced Nursing*, 48(5), 530-540.

EXAMPLE OF A TOOL AS SUMMARIZED IN THE APN TOOLKIT

Misener Nurse Practitioner Job Satisfaction Scale (MNPJSS)

Original citation: Misener, T. R.,

Scale format: 44 items, each measured using a 6-point Likert scale. Response options: "Very Satisfied" = 6; "Satisfied" = 5;

Factors and Norms: 6 factors, determined by factor analysis:
1) Intrapractice partnership/collegiality; 2) Challenge/autonomy;

Strengths: Easy to administer and score; covers a wide variety of previously published factors associated with job satisfaction.

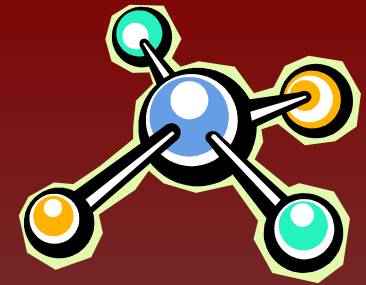
Designing

Innovative Cancer
Services and **Advanced
Practice Nursing Roles:**

Toolkit



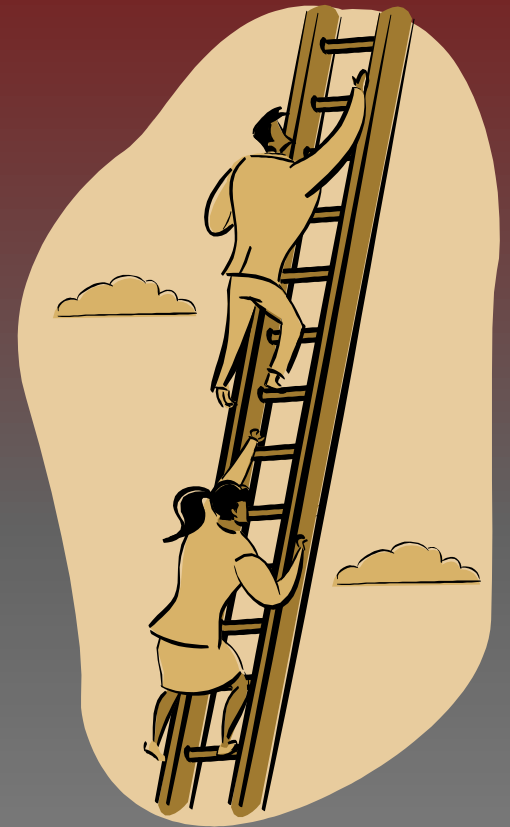
In Summary



- ◎ APN roles are complex health care interventions
 - > Multiple role dimensions and activities
 - > Targeting patients and families, nurses, providers, teams, organization and system wide issues
 - > In complex and dynamic health care systems
- ◎ Well designed and implemented APN roles lead to positive patient, provider and health system outcomes

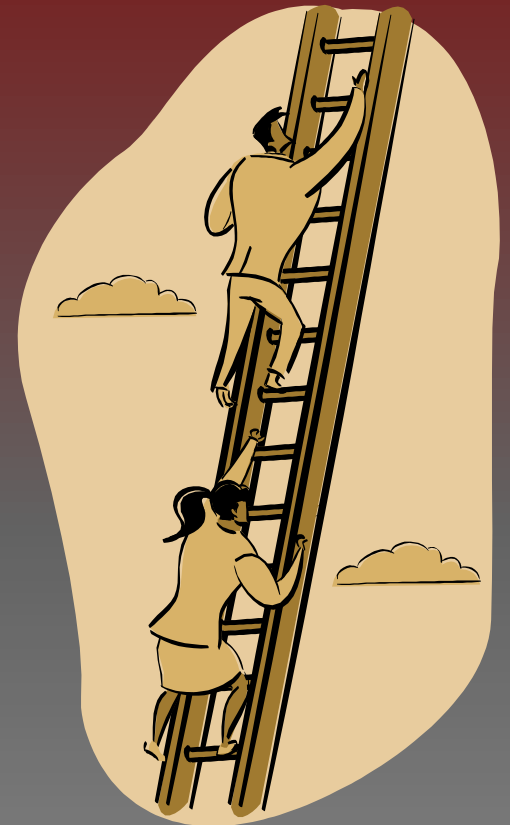
In Summary

- Successful APN role implementation requires careful planning, step-wise approaches, stakeholder engagement, and use of good evidence
- Meaningful evaluations of APN roles begin with clear delineation of goals and outcomes in the role design process



In Summary

- ◎ PEPPA provides a systematic approach for successful APN role design and implementation
- ◎ PEPPA-Plus supports strategic and meaningful evaluations of APN roles across 3 stages for role development



Resources for APN Role Implementation and Evaluation

- International Council of Nursing – Nurse Practitioner/APN Network at:
 - <http://international.aanp.org/>
- The PEPPA Framework: A participatory, evidence-informed, patient-focused process for APN role development, implementation and evaluation
 - Bryant-Lukosius & DiCenso. (2004). *Journal of Advanced Nursing*, 48(5), 530-540.
 - Bryant-Lukosius et al., (2017). In Kleinpell, R.M. *Outcome Assessment in Advanced Practice Nursing*, 4rd Ed., New York: Springer
- Advanced Practice Nursing Roles: A Framework for Evaluation - PEPPA Plus
<http://oapn.mcmaster.ca/index.php/component/content/article/177-peppa-plus-an-enhanced-framework-for-evaluating-advanced-practice-nursing-apn-roles>
- The APN Data Collection Toolkit at: <http://apntoolkit.mcmaster.ca/>
- Designing and Evaluating Innovative Cancer Services and APN Roles: Toolkit. (Bryant-Lukosius, 2009).
<https://www.cancercare.on.ca/about/programs/otherinitiatives/peppaproject/>



Thank You.....

Contact: bryantl@mcmaster.ca