Oncology Nurse Perceptions of Clinical Priorities and Strategies for Promoting Evidence-Based Practice

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Denise Bryant-Lukosius¹,², Lorraine Martelli-Reid², Anita Adams², Christine Zywine², Margaret Forbes², Kari Kolm², Mary Ruth Crabb², Jennifer Wiernikowski², Dorothy Vaitekunas², Deb Evans², Laura Mishko², Jan Park Dorsay², & Kathleen Green²

¹McMaster University; ²Juravinski Hospital and Cancer Centre, Hamilton, ON, Canada
Objectives

• Describe the results of a cancer program wide survey of nurses’ knowledge, attitudes, skills & experience related to evidence-informed nursing practice (EINP)

• Identify barriers and facilitators to oncology nurse involvement in EINP

• Examine the role of the advanced practice nurse for supporting oncology nurse involvement in EINP
Background

• Research has shown that EINP is important for achieving optimal patient and health system outcomes

• However, nurses often find it difficult to apply research evidence in their practice

• Knowledge, skills and formal organizational structures and supports, such as advanced practice nurses (APNs) are important for developing EINP
Welcome to The Canadian Centre of Excellence in Oncology Advanced Practice Nursing (OAPN)

Welcome to Canada’s first research unit dedicated to improving patient health through the effective use of advanced nursing roles in cancer care which opened at the Juravinski Cancer Centre at Hamilton Health Sciences on April 28th, 2009.

The goal of OAPN is to provide a comprehensive, integrated national program of leading-edge research, education, mentorship and knowledge translation initiatives to support the effective use of oncology APN roles in cancer care.

This website will be a valuable resource to a diverse group of stakeholders including:

- Advanced practice nurses
- Hospital administrators
- Physicians
- Policy-makers
- Cancer organizations
Background

• Juravinski Hospital & Cancer Centre – APN group: 8 NPs & 4 CNSs

• Meet monthly to address APN role development needs and to support effective role implementation

• Expand the profile & impact of their individual & collective expertise across the cancer program

• APNs perceived their EINP expertise was underutilized

• Staff nurse needs and priorities for promoting EINP were unknown
Model for Change to Evidence-Based Practice
Adapted from Rosswurm & Larrabee (1999)
Needs Assessment (Research) Questions

• Are there differences in staff nurse, nurse educator, and nurse manager perceptions of their knowledge, attitudes, skills and involvement in EINP practice?

• What patient care issues do nurses feel are the most important to improve using EINP strategies?

• What are nurse perceptions of their knowledge, attitude, skills and involvement in EINP in the Juravinski Cancer Program (JCP)?

• What are nurse perceptions of the role of advanced practice nurses in promoting EINP?

• What strategies do nurses recommend to promote EINP within the JCP?
Study Design

• Descriptive, two phase study

• Phase 1
  – A self-report questionnaire was used to survey the entire population of staff nurses, nurse educators and nurse managers

• Phase 2
  – Focus groups to be conducted in six practice settings across the cancer program to identify solutions for improving EINP
Study Methods

• **Sample**
  - Entire population of staff RNs, nurse educators & nurse managers (n=252)
  - Across 3 sites,
  - 6 inpatient & outpatient settings
  - Ontario Breast Screening Program

• **Multiple evidence-based strategies used to promote a high response rate**
  - Stamped, self-addressed return envelope
  - Modest incentive (Tim Hortons’s coupons)
  - Reminders at 2 and 4 weeks
  - Assurance of confidential participation
Questionnaire

- **Evidence-Base Practice Questionnaire** (Upton & Upton, 2006)
  - 24 item self-report questionnaire
  - Measures knowledge, practice & attitudes about EBP
  - Internal validity (Cronbach α 0.79 to 0.91)
  - Construct validity ($r=0.3$ to $0.4$, $p<0.001$)

- Additional questions developed by research team to assess:
  - RN expectations of APN role
  - RN perceptions of their EINP knowledge, skills & clinical priorities

- Face validity assessed by 3 RNs, 1, nurse educator, & 1 nurse manager

- Content validity assessed by the hospital EBP Committee
Questionnaire Results

• 204 of 252 questionnaires were returned (Response Rate = 81.0%)

• 10 of 252 (4.0%) refused consent

• 194 of 252 (77.0%) are available for analysis
Demographic Data

- Registered Nurses (94%)
- Diploma prepared (71%)
- 15+ years experience as an RN (73%)
- 15+ years oncology nursing (35%)
- ≤ 4 years of oncology nursing (22%)
- CNA Certification in oncology (36%)
EINP Education (n=194)

- Informal education through rounds or discussion with the health care team (83%)
- Formal education sessions through work (49%)
- Courses in my basic nursing education program (40%)
- Graduate courses (6%)
- Other (9%)
- No formal or informal education (9%)
Attitudes Toward EINP

On a 7-point scale where 1=Negative Attitude and 7=Positive Attitude:

• EINP is fundamental (Mean = 5.61, SD )

• Changed practice because of evidence (Mean = 5.39 (SD )

• Welcome questions on my practice (Mean = 5.34, SD )
Attitudes

Mean 3.85 (SD 1.6)

1
“My workload is too great for me to keep up to date with all the new evidence”

X

7
“New evidence is so important that I make the time in my work schedule”
Skills (n=194)

• Overall rating of EINP skills
  – Expert (0%)
  – Proficient (13%)
  – Competent (38%)
  – Advanced Beginner (26%)
  – Novice (21%)
  – No Response (2%)
Involvement

- Formulated a clearly answerable question → **Mean = 4.74**
- Tracked down the relevant evidence → **Mean = 4.73**
- Integrated the evidence → **Mean = 4.63**
- Evaluate outcomes of your practice → **Mean = 4.63**
- Shared this information with colleagues → **Mean = 4.60**
- Critically appraised literature → **Mean = 3.64**

Scale: 1(Never) to 7(Frequently) [in past year]
Involvement

• How frequently do you incorporate EINP activities into your practice?
  – Mean = 4.73 (SD 1.6)
Education vs. Involvement

• Level of Education was associated with frequency (Mean score of > 4) of incorporating evidence into practice

• Undergraduate degree prepared RNs (92%) vs Diploma prepared RNs (76%) ($p<0.05$)
More Involvement Comparisons

- No association between the “frequency of incorporating EINP activities into practice” and
  - Oncology or Palliative Care Certification ($p=0.931$)
  - Years practiced as an RN ($p=0.681$)
  - Type of nursing role ($p=0.423$)
  - Practice setting ($p=0.287$)
Education vs. Skills

- Nurse perceptions of their competency in EINP skills was associated with education level

- Competent or proficient EINP skills ($p<0.01$)
  - Undergraduate degree (74.5%)
  - Diploma (44.5%)
More Skills Comparisons

- No association between the “overall rating of EINP skills” and:
  - Certification in Oncology or Palliative Care ($p=0.510$)
  - Years practiced as an RN ($p=0.230$)
  - Type of nursing role ($p=0.878$)
  - Practice setting ($p=0.672$)
Patient Care Issues

• What patient health problems do nurses feel are the most important through improvements in nursing practices?

• Respondents identified 414 health problems which were grouped into 31 categories

• The 5 most frequently reported patient health problems:
  – Mental Health/Coping (15.5%)
  – Pain (15.5%)
  – Fatigue (6.0%)
  – Nausea and Vomiting (6.0%)
  – Infection (5.1%)
Most respondents rated themselves Competent or Proficient for 22 clinical issues

- 78.4% = Nausea & vomiting
- 75.8% = Loss of appetite
- 75.8% = Pain
- 75.8% = Constipation
- 75.3% = Diarrhea
- 74.7% = Fatigue
- 73.7% = Wound care
- 73.7% = Breathlessness
- 70.6% = Weight loss or gain
- 70.1% = Skin reactions
- 69.6% = Coping

- 68.0% = Urinary dysuria or frequency
- 68.0% = Family coping
- 68.0% = End of life care
- 67.0% = Urinary incontinence
- 66.5% = Anxiety
- 65.5% = Peripheral neuropathy
- 64.4% = Depression
- 62.9% = Oncologic emergencies
- 61.9% = Febrile neutropenia
- 54.6% = Sleep-awake disturbance
- 49.0% = Early detection/screening
Role vs. Interaction

• Type of nursing role was associated with the frequency of interaction with an APN about EINP ($p<0.03$)

• Never Interacted with an APN in the past year
  – Staff nurses (47%)
  – Primary Nurses (31%)
  – Charge/Unit/Manager/Educator Nurses (19%)
Setting vs. Interaction

- Differences in the type of practice setting in which a nurse worked was associated with the frequency of interaction with APN about EINP ($p<0.02$)

- Never interacted with an APN in the past year
  - Inpatient (49%)
  - Outpatient (32%)
Facilitators for Involvement

- **Top 5 Facilitators to EINP Involvement**
  - Discussions with HCT members (81%)
  - Protocols, policies or practice guidelines on my unit (64%)
  - Access to a clinical educator (55%)
  - My awareness of potential gaps in best nursing practices (53%)
  - Involvement in education programs (45%)
Barriers to Involvement

• Top 5 Barriers to EINP Involvement
  – Lack of time (87%)
  – Inability to access research-based information at work in a time efficient manner (55%)
  – Lack of participation on nursing practice committees (43%)
  – Insufficient financial resources to implement EINP changes (30%)
  – Lack of access to an APN (27%)
Conclusions

• Overall, nurses had positive attitudes about EINP & felt engaged in EINP activities

• Level of education was associated with perceived competency and involvement in EINP

• May be some limitations to accurate self-assessment of evidence-based competency for common clinical issues
Conclusions

• Reported barriers to EINP similar to the results of other nursing studies
  – Time, access to research based information, practical supports

• APN perceptions that their roles are underutilized in promoting EINP were confirmed by:
  – Variable & limited nurse interaction with an APN
  – APNs often not recognized as a resource
Implications for Practice

• Undergraduate RNs & educators will be helpful resources for implementing future EINP initiatives

• Identify strategies for making APNs more accessible to nursing staff across the cancer program

• Consistency of patient problems/clinical priorities for improving nursing practice across practice settings will facilitate implementation of a program wide initiative

• Need for better nurse self-assessment & education:
  – evidence-based knowledge & skills for common cancer patient health problems
  – EINP knowledge & skills