

Knowledge Gaps in Practice-based Problems and Research-based Interventions Among Online Graduate Nursing Students

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Purpose of the Study

This study sought to:

- 1) describe the salient clinical nursing problems identified by practicing MSN students,
- 2) determine if areas of inquiry were congruent to the priority themes of the National Institute of Research,
- 3) determine if sufficient scientific literature existed to guide research-based interventions, and identify any literature gaps



Conceptual Framework

National Institute of Nursing Research Priority Areas
(2011)



“Symptom Science” “Wellness” “Self-Management”
“End-of Life & Palliative Care”
“Technology” & “Research Careers”

From. U.S. Department of Health and Human Services, National Institute of Health, National Institute of Nursing Research (2011).
Implementing NINR's Strategic Plan: Key Themes. Retrieved from <http://www.ninr.nih.gov/aboutninr/keythemes#.VDLxZnktDVh>

Illustrations of NINR Priorities

- Symptom Science : Promoting Personalized Health Strategies (Example: chronic illness and adverse symptoms such as symptoms resulting in pain, disordered sleep and many others across diverse populations and settings)

From. U.S. Department of Health and Human Services, National Institute of Health, National Institute of Nursing Research (2011). Implementing NINR's Strategic Plan: Key Themes. Retrieved from <http://www.ninr.nih.gov/aboutninr/keythemes#.VDLxZnktDVh>

Wellness: Promoting Health and Preventing Illness

- Physical, behavioral and environmental causes of illness, behaviors that lead to a healthy lifestyle and choices to develop evidenced-based interventions to promote wellness.

From. U.S. Department of Health and Human Services, National Institute of Health, National Institute of Nursing Research (2011). Implementing NINR's Strategic Plan: Key Themes. Retrieved from <http://www.ninr.nih.gov/aboutninr/keythemes#.VDLxZnktDVh>

Self-Management: Improving Quality of Life for Individuals with Chronic Illness

- Strategies to help individuals and their caregivers to deal with chronic conditions to create a better understanding for management of their illness

From. U.S. Department of Health and Human Services, National Institute of Health, National Institute of Nursing Research (2011). Implementing NINR's Strategic Plan: Key Themes. Retrieved from <http://www.ninr.nih.gov/aboutninr/keythemes#.VDLxZnktDVh>

End- of- Life and Palliative Care: the science of compassion

- Science in managing the symptoms of life limiting conditions and planning for end-of-life decisions

From. U.S. Department of Health and Human Services, National Institute of Health, National Institute of Nursing Research (2011). Implementing NINR's Strategic Plan: Key Themes. Retrieved from <http://www.ninr.nih.gov/aboutninr/keythemes#.VDLxZnktDVh>

Promoting Innovation: Technology to Improve Health

- Science in promoting innovation(Example: creating an assessment tool to assess pain in children)

From. U.S. Department of Health and Human Services, National Institute of Health, National Institute of Nursing Research (2011). Implementing NINR's Strategic Plan: Key Themes. Retrieved from <http://www.ninr.nih.gov/aboutninr/keythemes#.VDLxZnktDVh>

Innovative Strategies for Research Careers

- The development of a strong cadre of nurse scientists

From. U.S. Department of Health and Human Services, National Institute of Health, National Institute of Nursing Research (2011). Implementing NINR's Strategic Plan: Key Themes. Retrieved from <http://www.ninr.nih.gov/aboutninr/keythemes#.VDLxZnktDVh>

Procedure

- Human Subjects Consent was obtained
- Each student who had completed the research methods course and an ethics course during the 2012-2013 academic year (n=215) were **selected** by an **honest broker** from files stored in Blackboard Learn
- Abstracted data were **managed and organized by the honest broker at the University** who removed all identifiers from **student papers, sent the papers to the nurse researchers**, and then sent the demographic data directly to Survey Monkey which is an online data depository

Procedure (continued)

- Krippendorff method (2005) of content analysis (**secondary analysis of de-identified papers**) was used by two researchers to identify practice-based problems and research-based interventions categorized under the NINR themes with gaps by the MSN students

Sample Characteristics (n=215):

- Female (88%)
- Aged 21-39 years (69%)
- Employed Full Time (95%)
- White (73%)
- From the North East Region of the United States (83%)
- Enrolled in Nursing Leadership/Nurse Practitioner Specialty (59%)

Study Demographic Information* (Some data are missing)		
Variable	N	%
Gender		
Male	26	12.4
Female	183	87.6
Age		
21-29	72	34.6
30-39	70	33.5
40-49	45	21.5
50-59	21	10.1
60+ years	1	0.5
Race		
American Indian/Alaskan Native	2	0.9
Asian	3	1.5
Black/African-American	21	10.2
From Multiple Races	3	1.5
Native Hawaiian/Pacific Islander	1	0.5
White	150	73.2
Other	25	12.2
Region		
Central US	11	5.3
Northeast US	174	83.3
Northwest US	3	1.4
Other	1	0.5
Southeast US	13	6.2
Southwest US	4	1.9
West US	3	1.4
Specialty		
Clinical Nurse Leader	23	10.9
Clinical Trials Research	8	3.8
Innovation & Intra/Entrepreneurship in Advanced Nursing Practice	8	3.8
Graduate Nursing Non-Matriculated	1	0.5
Nurse Anesthesia	28	13.3
Nurse Education and Faculty Role	40	19.0
Nurse Leadership in Health Systems Management	51	24.2
Nurse Practitioner	51	24.2
Post Master's Certificate	1	0.5

Typology of Themes for Practice-Based Problems

1. **Symptom Science** (Adverse symptoms resulting in pain, disordered sleep, etc.)

Specific Problems Selected by MSN Students:

Adverse symptoms resulting in:

1.pain, 2.inadequate sleep, 3.delirium, 4.falls,
5.hospital-acquired infections and/or sepsis,
6.noise in the environment such as from alarms,
7.hypothermia, 8.stress and anxiety in families.

Typology of Themes for Practice-Based Problems (continued)

2. Self-Management: Improving Quality of Life with Chronic Illness (Strategies for patients and caregivers to have a better QOL)

Specific Problems Selected by MSN Students:

1. Non-adherence to medical regimen (CHF patients),
2. Effects of polypharmacy on readmissions,
3. Caregiver stress and anxiety

Research-based Interventions

Symptom Science and Self-Management:
Improving Quality of Life

1. Early recognition and treatment of the adverse problem by the nurses;
2. Adequate nurse workload (including ratios);
3. Rounding by nurses;
4. Standardized protocols for nurses;
5. Educational guidelines for the adverse problems

MSN STATED GAPS IN THE LITERATURE

1. Lack of clear CLINICAL guidelines or protocols for adverse symptoms of patients with treatment universally used. Examples include: lack of guidelines related to nurses attitudes towards pain management, detection of sepsis, pain assessment techniques in the non-verbal patient, lack of sedation protocols for use in ICU
2. Lack of UNIVERSAL administrative enforcement of guidelines for nurses workload with a scarcity of guidelines to be used.
3. Lack of EDUCATIONAL strategies for the nurses in assessment and treatment of adverse symptoms. Examples include: Lack of guidelines regarding environmental noise and sleep quality, prevention of HAI (hospital-acquired infections)

Typology of Themes for Practice-Based Problems (continued)

3. **End-of Life Care** (planning for end of life decisions by family)

Specific Problems Selected by MSN Students:

1. Persistent vegetative state or on a ventilator with no hope and family wishes to continue care or families disagree on what to do,
2. Patient with a terminal illness who wants physician – assisted suicide
3. Family presence during resuscitation

Research based Interventions

Communication with health care team though there is disparity on interventions for health care team on communication for end of life care to be universally used

MSN Identified Gaps

Lack of clear guidelines or protocols for health care team on communication regarding end of life care which are universally used. Examples include family presence during resuscitation in the ED or in communication about decisions for families.

CONCLUSIONS

- Further study needs to be done on gaps in the literature validating student data.
- More research on protocols using educational strategies so nurses in the clinical area have actual guidelines to enhance their practice



Thank You