



ARE NURSES PREPARED TO MEET THE CARE NEEDS OF THE LARGEST US PATIENT POPULATION?

DR. KIM KUEBLER DNP, APRN, ANP-BC

ASSISTANT PROGRAM DIRECTOR SOUTH UNIVERSITY

Objectives

- ▶ Define the escalating demographics of the largest, fastest growing and costliest patient population in the US health care system.
- ▶ Identify and describe the current federal initiatives targeting the care and outcomes of patients living with multiple chronic conditions.
- ▶ Review three recent research projects that highlight the need for educational and clinical content in undergraduate and graduate nursing curriculum on chronic disease, symptoms and self-management

The American Demographics

The United States is in the midst of a major demographic shift.

In the next four decades, people aged 65 and older will make up the largest percentage of the population

Board on Mathematical Sciences and Their Applications · Division on Engineering and Physical Sciences
Committee on Population · Division of Behavioral and Social Sciences and Education, 2012

The US Aging Population

The oldest of the 80 million baby boomers reached age 65 in 2011

Living longer with increased disability

Institute of Medicine (IOM), 2012



The US Aging Population

Currently, 75% of Americans are living with and dying from more than one symptomatic chronic condition.

Affordable Care Act

The Patient Protection and Affordable Care Act

May, 2010



111TH CONGRESS

2d Session

COMPILATION OF PATIENT
PROTECTION AND AFFORDABLE
CARE ACT HEALTH-RELATED
PORTIONS OF THE HEALTH CARE
AND EDUCATION

RECONCILIATION ACT OF 2010

PREPARED BY THE

Office of the Legislative Counsel
FOR THE USE OF THE U.S. HOUSE OF
REPRESENTATIVES

Undergraduate Nursing

To compare baccalaureate nursing students' self-perceived knowledge with objective test knowledge in the management of chronic diseases and their associated symptoms.

Kuebler, 2012

Undergraduate Nursing

Senior RN students in two undergraduate programs:

Faith-based program in the NE (n=54)

State-based program in the SE (n=36)

Undergraduate Nursing: Self Knowledge

Validated self-perceived knowledge survey evaluated three domains:

- ▶ Knowledge level of prevalent chronic disease states;
- ▶ Management of chronic disease;
- ▶ Use of optimal symptom management

Likert scale 1=lowest level of knowledge 4=greatest level

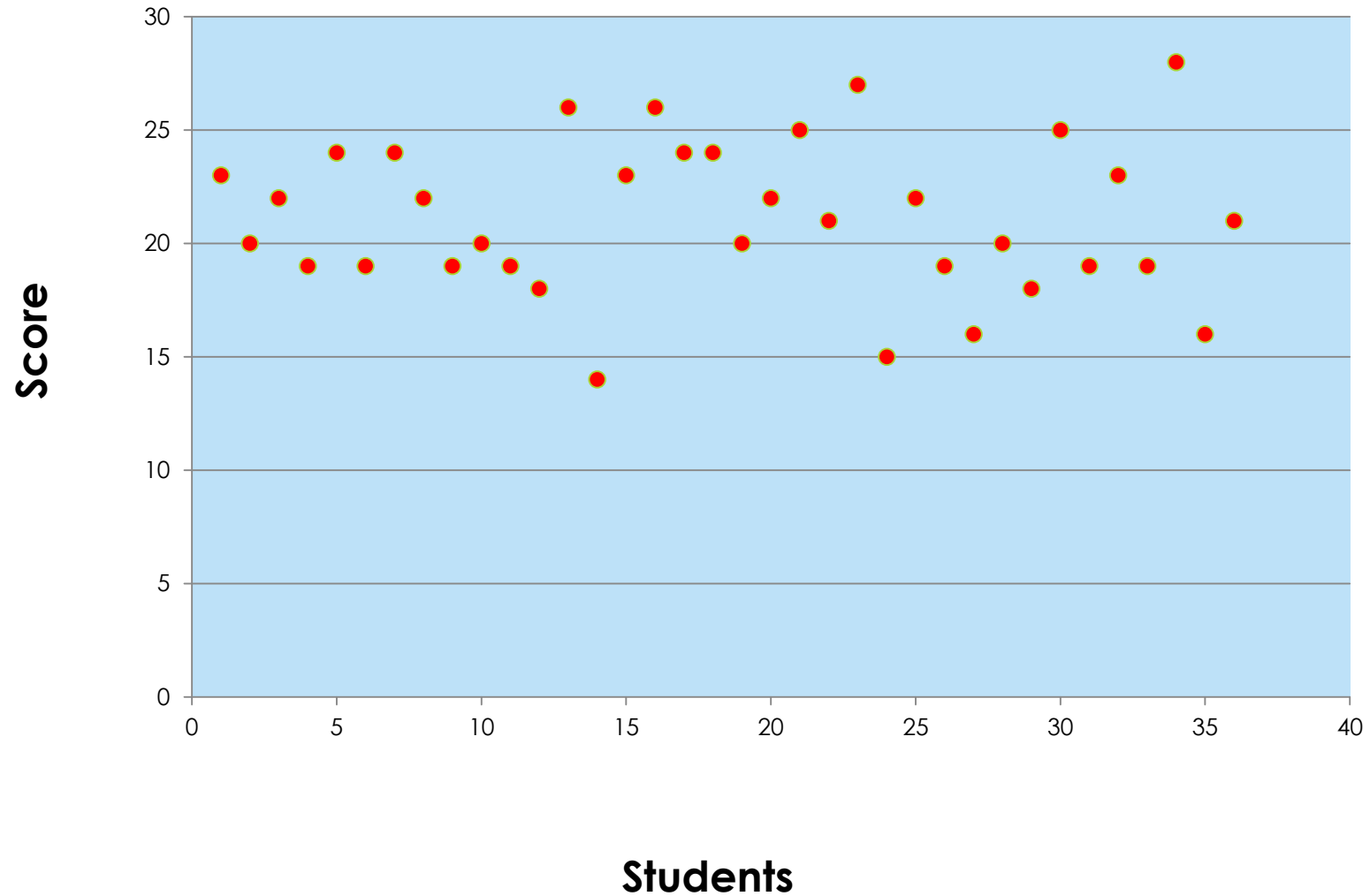
Undergraduate Nursing – Self Knowledge

Both groups then completed a psychometrically sound 45-item objective examination of chronic disease, symptom and self management.

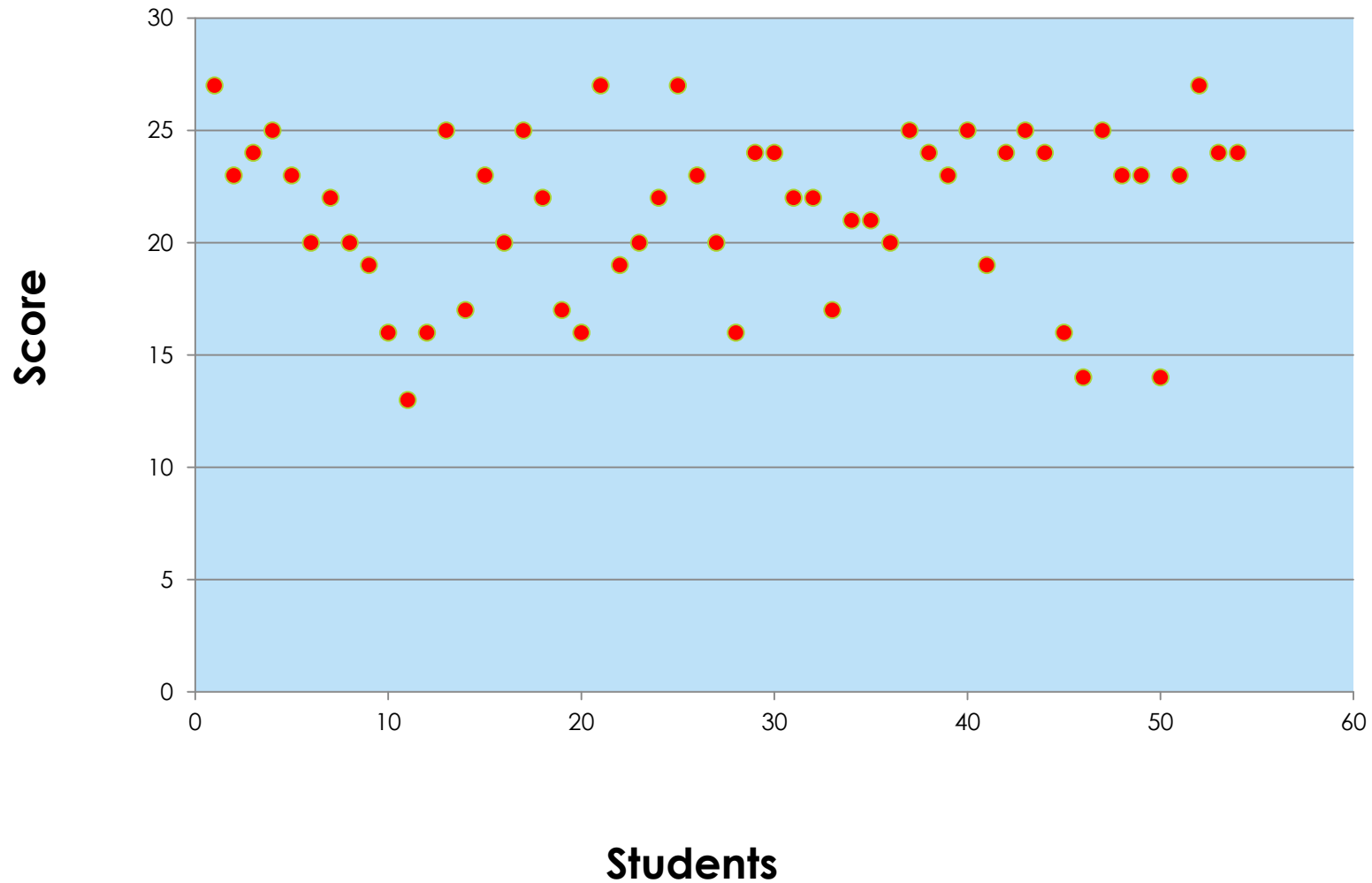
Both cohorts scored similarly: SE 21.7 and NE 21.48

The SE and NE scored a mean score of less than 50%

Scatter Plot for Objective Knowledge Scores SE



Scatter Plot for Objective Knowledge Scores NE



National Graduate Nursing Survey

Evaluate differences between undergraduate and graduate self-perceived knowledge when compared with actual knowledge in a graduate nursing population (Masters and Doctoral).

National Graduate Nursing Survey

Three consecutive emails went out to over 800 nursing programs, chairs or administrators – contact information came from the American Association of Colleges of Nursing.

Graduate program designees were asked to encourage student participation in this national project – a link to Survey Monkey was embedded in the email

National Graduate Nursing Survey

- ▶ Survey was collected from May 1, 2013 through March 1, 2014
- ▶ Student participation was voluntary and anonymous
- ▶ Students completed self-knowledge survey and then completed the 45-item quantitative objective examination on chronic conditions, symptoms and self management

National Graduate Nursing Survey

- ▶ 250 students completed the demographic information and 121 completed the survey and examination
- ▶ Majority of students were from the SE (31.40%) and the Midwest (28.10%), followed by the NE (19.01%)
- ▶ 87.60% of the respondents utilize Advance Directives in their practice

Self Knowledge Survey: Chronic Disease

Subjects	CV	Cancer	Stroke	COPD	Diabetes	Obesity	ESRD	HIV AIDS	ALZ
SE BSN Students	2.56	2.56	2.56	2.86	3.06	3.05	2.42	2.65	
NE BSN Students	2.72	2.49	2.63	2.59	3.13	2.91	2.52	2.37	
National Graduate Students	3.0	2.13	2.8	3.0	3.2	3.0	2.7	2.13	2.7

Self Knowledge Survey: Chronic Disease Management

Subjects	Assessment	Evaluation	Diagnosis	Therapy	Follow-up	Referral	SM
SE BSN Students	3.08	2.86	2.47	2.81	2.78	2.50	
NE BSN Students	2.96	2.91	2.31	2.81	2.46	2.17	
National Graduate Students	3.14	3.04	2.77	2.84	2.91	2.94	2.98

Self Knowledge Survey: Symptoms

Subjects	Non Malig Pain	Malignant Pain	Dyspnea	Dysphagia	Depression	Insomnia	Fatigue	Cachexia
SE BSN Students	2.53	2.65	2.89	2.81	2.94	2.72	2.97	2.14
NE BSN Students	2.63	2.44	2.93	2.67	2.76	2.48	2.72	1.67
National Graduate Students	2.58	2.39	2.92	2.69	2.82	2.73	2.77	2.35

Graduate Nurses Knowledge

- ▶ Knowledge of Pathophysiology, Symptoms and Self-Management, collective score 70%
- ▶ Recognize Dyspnea as a cardinal symptom of CHF
- ▶ Knowledge on use of Beta-Blockade in management of CHF
- ▶ Identify pertinent laboratory findings for acute respiratory failure

Graduate Nurses Knowledge

- ▶ Effects of malignancy on patient-centered outcomes
- ▶ Identify specific diagnostics to determine renal failure severity
- ▶ Results on the immune system with a low CD4 count below 200/uL
- ▶ Implementing cognitive assessment in confused patients

Graduate Nurses Knowledge

- ▶ Use of anticonvulsants and antidepressants as adjuvant analgesics for neuropathic pain
- ▶ Evaluate depression in patients living with malignancy
- ▶ Recognize antidepressant that does not have sexual alterations or anticholinergic effects

Impetus for Systematic Review

The federal initiatives and the demands of an aging society prompted an:

Evaluation and analysis of the academic preparation of graduate nurses who provide care and services to the escalating population of patients living with symptomatic chronic disease

A Collaborative Partnership: Design

9 Doctoral faculty members were recruited from 5 Universities:

- ▶ **Georgia Southern University**
- ▶ **Sacred Heart University**
- ▶ **University of South Carolina**
- ▶ **Armstrong Atlantic State University**
- ▶ **South University**

Systematic Review Protocol: Design

- ▶ PI developed a Protocol to guide the Systematic Review (reducing bias)
- ▶ All faculty members reviewed the protocol and the PIO question and objectives to guide the search – conference call
- ▶ Specific **SEARCH TERMS** were agreed upon by the faculty and assignments were made based upon the various databases

Systematic Review Protocol: Design

QUESTION:

What is the available evidence that suggests the inclusion of chronic disease, symptom and self-care management content within graduate nursing curriculum?

Systematic Review Protocol: Methods

This systematic review initially sought to find evidence from:

1. Randomized Controlled Trials
2. Meta-analysis or systematic review's
3. Non randomized clinical trials
4. Qualitative studies

Systematic Review Protocol: Methods

EXCLUSIONS:

- ▶ Oncology related evidence
- ▶ Undergraduate nursing education or curriculum
- ▶ Observational studies
- ▶ Case studies and case reports*

Systematic Review Protocol: Methods

DATABASES:

The data bases reviewed included:

PubMed, Cochrane Collaboration, Medline and Cinahl

Results

Due to the lack of evidence in two of the databases (Cochrane, Medline) – search terms were modified to exhaust the systematic review.

Support from 3 university based librarians

Results

- ▶ Initially, 105 publications were identified by the collaborative
- ▶ Two faculty separately reviewed the 105 publications by referring to the protocol's search terms - this yielded 38 papers (150->38)
- ▶ A second review of 38 papers was independently performed by 2 faculty and narrowed to 10 papers based upon protocol criteria

Quality Control

Four faculty members critically reviewed the 10 publications and populated a literature matrix - this underwent peer review and was agreed upon by the 9 faculty members.

Results

Of these 10 publications common themes were identified and correlated with the protocol's search terms:

- ▶ Chronic Disease/ Gerontological Nursing
- ▶ Palliative Care /End of life Care
- ▶ Symptom Management
- ▶ Self Care Management
- ▶ Nursing Theory (NEW)

Quality Control

2 faculty members independently preformed a third review of the 10 publications by using the final matrix, protocol search terms and the identified themes

From this second review 4 publications were deleted

Deleted Publications

- ▶ Palliative and End of Life Care theme: 3 publications were deleted due to the primary focus on the *End-of-Life Nursing Education Consortium (ELNEC)*
- ▶ 1 publication from the UK with a primary focus on faculty education on dementia was deleted

Publication Review

Chronic Disease/Gerontological Theme

Kohlenberg et al., (2007). Infusing gerontological nursing content into advanced practice nursing curriculum. *Nursing Outlook*, 55(1), 38-43.

Thornlow et al., (2006). A necessity not a luxury: Preparing advanced practice nurses to care for older adults. *Journal of Professional Nursing*, 22(2), 116-122.

Hinch et al., (2005). Preparing students for evolving nurse practitioner roles in health care. *Medsurg Nursing*, 14(4), 240-245.

Publication Review

Symptom Management Theme

Cranford et al., (2011). Nurse practitioner students' perceptions of fibromyalgia pain and quality of life. *Medsurg Nursing*, 20(4), 169-177.

McConnell et al., (2004). Complexity theory: A long-term care specialty practice exemplar for the education of advanced practice nurses. *Journal of Nursing Education*, 43(2). 84-87

Publication Review

Self Care Management

Williams et al., (2009), Problem based learning in chronic disease management: A review of the research.
Patient Education and Counseling, 77, 14-19

Publication Review

Nursing Theory

Crumbie et al., (2004). Advanced practice nursing model for comprehensive care with chronic disease: Model for promoting process engagement. *Advances in Nursing Science*, 27(4), 70-80.

AACN Essentials

Two faculty independently reviewed all of the graduate nursing AACN Essentials –

Agreement that there is a paucity of content in all of the Graduate Nursing Essentials that mention chronic disease, symptom and self-care management

Implications

Based upon the current and growing aging demographics and Federal initiatives there is a need to:

- ▶ **Develop standardized methods and specific content for inclusion into undergraduate and graduate nursing curriculum, as well as;**
- ▶ **Evaluation of methods to determine if content is effective, and to;**
- ▶ **Include more rigorously designed studies**

Implications

- ▶ Most of the literature focuses on end of life care where the focus of palliative care (symptom management) is limited only to end-of-life care and not extended into chronic disease management and associated symptoms.
- ▶ Future exploration is needed for continuing education for prior graduates who may have missed this important content

Nursing Education Findings

Kuebler, K. (2012). Implications for palliative care nursing education. *Clinical Scholars Review*

Kuebler, K. et al., (2014). A systematic review: A Collaborative partnership on evaluating graduate nursing education in chronic symptomatic disease. *Clinical Scholars Review*

Kuebler, K (2014). National graduate nursing survey: Chronic disease, symptoms and self-management. *Journal of Palliative Medicine*

Kuebler, K. et al., (2015) National graduate nursing survey on chronic disease, symptoms and self management. *Clinical Scholars Review*