Academic and Clinical Partnerships to Foster Research in Palliative Care

Lucia Gonzales PhD, MSN, MBA, NP-C
Associate Professor, University of San Diego
Hahn School of Nursing and Health Science
San Diego, CA
# Partnership Facilitators

<table>
<thead>
<tr>
<th>Name</th>
<th>Discipline</th>
<th>Title</th>
<th>Department</th>
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</thead>
<tbody>
<tr>
<td>Sally Brosz Hardin</td>
<td>Nursing, PhD, RN, FAAN</td>
<td>Dean and Professor</td>
<td>USD Hahn School of Nursing and Health Science</td>
</tr>
<tr>
<td>Katie Skelton</td>
<td>Nursing, MSN</td>
<td>VP Patient Care Services/ Chief Nursing Officer</td>
<td>St. Joseph Nursing Division</td>
</tr>
<tr>
<td>Cynthia Connelly</td>
<td>Nursing, PhD, RN, FAAN</td>
<td>Director of Nursing Research and Professor</td>
<td>USD Hahn School of Nursing and Health Science</td>
</tr>
<tr>
<td>Patti Aube</td>
<td>Nursing, MSN, RN-BC, NE-BC</td>
<td>Executive Director</td>
<td>St. Joseph Education and Research</td>
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## Nurse Researchers

<table>
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<tr>
<th>Name</th>
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</thead>
<tbody>
<tr>
<td>Margaret Delmastro</td>
<td>Nursing, MSN, FNP-CP</td>
<td>Nurse Practitioner</td>
<td>St. Joseph Hospital Palliative Care</td>
</tr>
<tr>
<td>Denise Boyd</td>
<td>Nursing, MSN, OCN</td>
<td>Clinical Nurse IV</td>
<td>St. Joseph Hospital Oncology</td>
</tr>
<tr>
<td>Leonida Quinal</td>
<td>Nursing, BSN, OCN</td>
<td>Nurse Manager</td>
<td>St. Joseph Hospital Oncology</td>
</tr>
<tr>
<td>Rose Le</td>
<td>Nursing, MSN, FNP-C</td>
<td>Nurse Practitioner</td>
<td>St. Joseph Hospital Palliative Care</td>
</tr>
<tr>
<td>Lucia Gonzales</td>
<td>Nursing, PhD, MBA, MSN, FNP-C,</td>
<td>Associate Professor</td>
<td>USD Hahn School of Nursing and Health Science</td>
</tr>
<tr>
<td>Jane Georges</td>
<td>Nursing, PhD, RN</td>
<td>Associate Professor</td>
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<td>St. Joseph Hospital Education and Research</td>
</tr>
<tr>
<td>Jessica Deloviar</td>
<td>Nursing, BSN</td>
<td>Masters nursing student</td>
<td>USD Hahn School of Nursing and Health Science</td>
</tr>
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# Multidisciplinary Researchers

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<thead>
<tr>
<th>Name</th>
<th>Discipline</th>
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</thead>
<tbody>
<tr>
<td>Melvin L. Sterling MD</td>
<td>Hospice and Palliative Medicine</td>
<td>Dean and Professor</td>
<td>St Joseph Palliative Care Team</td>
</tr>
<tr>
<td>Brian Boyd MD</td>
<td>Hospice and Palliative Medicine</td>
<td>VP Patient Care Services/ Chief Nursing Officer</td>
<td>St. Joseph Palliative Care Team</td>
</tr>
<tr>
<td>Lisa Traucht MSW</td>
<td>Nursing, PhD, RN, FAAN</td>
<td>Director of Nursing Research and Professor</td>
<td>St. Joseph Palliative Care Team</td>
</tr>
<tr>
<td>Dale Glaser PhD</td>
<td>Statistical Analysis</td>
<td>Adjunct Faculty</td>
<td>USD Hahn School of Nursing and Health Science</td>
</tr>
</tbody>
</table>
St. Joseph Hospital Orange Clinical Motivators

1. Circle of Life award—palliative care team outcomes

   The Circle of Life Awards honor innovative palliative and end-of-life care in hospices, hospitals, health care systems, long-term care facilities, and other direct care providers. Major sponsors of the 2016 awards are the American Hospital Association, the Catholic Health Association, and the National Hospice and Palliative Care Organization & National Hospice Foundation.

2. Magnet renewal—nursing research

   Publications and presentations
Circle of Life Winners

2012 Circle of Life Winners
Haslinger Family Pediatric Palliative Care Center, Akron Children's Hospital, Akron, Ohio
Calvary Hospital, Bronx, New York
Sharp HealthCare, San Diego, California

Programs receiving 2012 Citations of Honor
Community PedsCare, Community Hospice of Northeast Florida, Jacksonville, Florida
**St. Joseph Palliative Care Program, Orange, California**
Unity, De Pere, Wisconsin
Palliative Care Team Outcome Study

- N=64
- Prevalence of women with infrequent bowel movements
  - 71.9% prior to consultation
  - 45.7% following consultation
- Significant decrease in infrequent bowel movements ($\chi^2 = 9.481, p = .002$)
Palliative Care Team Outcome Study

- N=64
- Adherence to algorithm
  - 37.5% prior to consultation
  - 78.1% following consultation
- Significant increase in adherence to algorithm ($\chi^2 = 4.75$, $p < .001$)
Adjusting Bowel Regimens When Prescribing Opioids in Women Receiving Palliative Care in the Acute Care Setting

Lucia K. Gonzales, PhD, MBA, MSN, FNP-C¹, Margaret A. Delmastro, RN, RNP, MS², Denise M. Boyd, BSN³, Melvyn L. Sterling, MD², Patricia A. Aube, RN-BC, NE-BC, MSN⁴, Rosemary N. Le, FNP-BC, MSN², Lisa Traucht, MSW², Leonida R. Quinal, BSN³, Jane M. Georges, PhD, RN¹, and Dale N. Glaser, PhD¹

Abstract
In palliative medicine, constipation is the third most common symptom after pain and anorexia, causing some to discontinue opioid therapy. Women experience higher incidence of constipation than men. The prevalence of infrequent bowel movements (<3 times/wk) and adherence to an established bowel regimen among women receiving opioids was studied. Referral to the palliative care team decreased the prevalence of infrequent bowel movements from 72% to 35%, and algorithm adherence increased from 38% to 78%. Education of oncology nurses decreased the prevalence of infrequent bowel movements among patients with cancer from 71% to 60%, and algorithm adherence increased from 0% to 75%, allowing patients to benefit from stool softeners and stimulants when receiving opioids.
Magnet Study

- New Knowledge, Innovations, and Improvements (NK)
- Research
- NK1: The organization supports the advancement of nursing research.
- Provide one completed IRB-approved nursing research study. Using format presented. Results of data analysis or findings must have occurred within the four (4) years before the document submission.
- Study Title: Opioid Induced Constipation
Constipation

- Bowel regimens for pain relieved by narcotics

- European Consensus Algorithm
  - Stool softener—colace
  - Stool stimulant—senna
  - Combination—Senakot S
“Adjusting Bowel Regimens When Prescribing Opioids in Women Receiving Palliative Care in the Acute Care Setting”
n=214
Bowel Regimen with Opioid Study

Staff Education on Bowel Regimen

Barrier Study - Oncology Nurses surveyed

Statistically significant desirable trend Sep through Oct 2015
Frequency of patients prescribed *Intermittent* Pain medication, Stool Softener and Stimulant by Year

<table>
<thead>
<tr>
<th>Study Year</th>
<th>n</th>
<th>Frequency %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014 and 2015</td>
<td>214</td>
<td>55 (25.7)</td>
</tr>
<tr>
<td>2014</td>
<td>103</td>
<td>22 (21.4)</td>
</tr>
<tr>
<td>2015</td>
<td>111</td>
<td>33 (29.7)</td>
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</table>
Stool softeners and stimulants

- Softener  docusate sodium  (Colace)  50 mg daily
  - Polyethylene glycol  (Miralax)  17 g (diluted in 8 fluid ounces water, juice, soda or coffee)

- Stimulant
  - Senna  8.6 mg sennosides  1-2 tablets at bedtime
  - Bisacodyl 5mg  1-2 tablets daily at bedtime

- Combination 29 labels docusate sodium and sennosides OTC
STTI Poster Presentation 2014

- REDUCING OPIOID-INDUCED CONSTIPATION FOLLOWING RN EDUCATION
  - Lucia Gonzales, RN, PhD, MSN
  - Denise Boyd RN, BSN
  - Leonida Quinal, BSN
  - Margaret Delmastro, RN, RNP, MSN
  - Melvyn L. Sterling, MD
  - Patricia A. Aube, RN, BC, MSN
  - Jane Georges, RN, PhD
  - Rosemary Le RN, NP, MSN
  - Lisa Traucht, MSW, ACSW
  - Jessica Deloviar, BSN
  - Dale Glaser, PhD

Specific aims. Investigate: 1. The effect of RN education on the use of an algorithm for constipation management in elders 2. The prevalence of constipation in women receiving opioid pain medication on an oncology unit in a large southwestern hospital.
Reducing Opioid-induced Constipation Following Charge RN Prompting for Bowel Regimen
Lucia Gonzalez, RN, PhD, Denise Boyd RN, BSN, Leonida Quinal, BSN, Margaret DeMastro, RN, RNP, MSN, Melvin L. Sterling, MD, Patricia A. Aube, RN, BC, MSN, Dale Glaser, PhD, Jane Georges, RN, PhD, Rosemary Le RN, NP, MSN, Lisa Traucht MSW ACSW

Background
Specific aims: Investigate: 1. The prevalence of infrequent bowel movements in elderly women receiving opioid pain medication on an oncology unit in a large southwestern hospital. 2. The effect of a charge nurse prompt of the attending physicians/hospitalists for bowel regimen on the use of an algorithm for constipation management in elders. 3. The improvement of infrequent bowel movements and the use of an algorithm over two years from 2014 and 2015.

Rationale for the study. In palliative medicine, constipation is the third most common symptom after pain and anorexia. Opioid prescriptions provide relief of pain but their effectiveness is frequently diminished by the occurrence of constipation and other common gastrointestinal side effects. Opioid binding occurs in the kappa, delta, and mu receptors in the enteric nervous system and constipation, nausea and vomiting result. Adult patients with cancer have opioid induced constipation rates of 40 to 63% with women experiencing more frequent constipation than men (Clemens & Klasschik, 2008). Inpatient opioid induce constipation was reported at 63% in a large cancer center in the southeastern United States (McMillan et al., 2013). Patients have discontinued opioid therapy because of constipation; have died in pain (Pappaleniou et al., 2013). Constipation is linked to agitation, delirium (D’Amatory, Murchy, Akane, & Young, 2011) and lengthened hospital stay (Nguyen et al., 2013).

The prevalence of infrequent bowel movements (<3 times per week) and adherence to an established bowel regimen among women receiving opioids was studied. Based on Clinical Practice Guidelines (Larkin et al., 2008), patients receiving opioids for pain should be taking both stool softeners and stimulants to prevent constipation. This study is part of an ongoing change project utilizing the PRECEDE PROCEED Model in the absence of the recommended bowel regimen.

Methods
Reducing Opioid-induced Constipation Following Charge RN Prompting for Bowel Regimen
Research methodology. A quasi-experimental design was used. A retrospective chart review was conducted on a convenience sample of female elderly patients (n=214), >50 years of age, February, March, June, August, September and October 2015 and April, May, June, July, August 2014. A baseline of infrequent bowel movements prevalence and the use of the pain medication, stool softeners and stimulant algorithm was measured the year before 2014 and the year during and after in 2015 the Charge nurse prompt for bowel regimen that was undertaken on the Oncology Unit of a large southwestern hospital.

Results

<table>
<thead>
<tr>
<th>Study Year</th>
<th>n</th>
<th>Age Range</th>
<th>Mean</th>
<th>SD</th>
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<tbody>
<tr>
<td>2014 &amp; 2015</td>
<td>214</td>
<td>51-95</td>
<td>70.24</td>
<td>9.08</td>
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<tr>
<td>2015</td>
<td>111</td>
<td>51-94</td>
<td>71.99</td>
<td>8.61</td>
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Race and Ethnicity of the Patients Reviewed

<table>
<thead>
<tr>
<th>Study Year</th>
<th>Study</th>
<th>n</th>
<th>White/Caucasian (%)</th>
<th>Black/African American (%)</th>
<th>Asian (%)</th>
<th>Other (%)</th>
<th>Hispanic (%)</th>
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</thead>
<tbody>
<tr>
<td>2014 &amp; 2015</td>
<td>214</td>
<td>195 (91.1)</td>
<td>4 (1.9)</td>
<td>10 (4.7)</td>
<td>5 (2.3)</td>
<td>45 (21.3)</td>
<td></td>
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<tr>
<td>2014</td>
<td>103</td>
<td>95 (92.2)</td>
<td>11 (1.0)</td>
<td>76 (7.2)</td>
<td>0 (0)</td>
<td>22 (21.4)</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>111</td>
<td>100 (90.1)</td>
<td>12 (10.7)</td>
<td>3 (2.7)</td>
<td>5 (4.5)</td>
<td>23 (20.7)</td>
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Frequency of Patients with Infrequent bowel movements/journeys less than 3 bowel movements

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<thead>
<tr>
<th>Study Year</th>
<th>n</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014 and 2015</td>
<td>214</td>
<td>152 (70.1)</td>
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<tr>
<td>2014</td>
<td>103</td>
<td>75 (72.8)</td>
</tr>
<tr>
<td>2015</td>
<td>111</td>
<td>75 (67.0)</td>
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</table>

Frequency of Patients Prescribed Daily Pain Medications

<table>
<thead>
<tr>
<th>Study Year</th>
<th>n</th>
<th>Frequency (%)</th>
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</thead>
<tbody>
<tr>
<td>2014 and 2015</td>
<td>214</td>
<td>26 (12.1)</td>
</tr>
<tr>
<td>2015</td>
<td>103</td>
<td>9 (8.7)</td>
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</table>

Conclusions/Implications

Research findings or results. Although the change in the level of infrequent bowel movements in patients receiving opioid medications is not significant at the combined level of (70%,). For the years of 2014 and 2015, the adherence to the evidenced based Clinical Practice Guidelines has significantly increased for daily stool softener and stimulants from 9% to 15% for intermittent stool softener and stimulant from 21 to 30%.

When comparing the two years on daily and intermittent stool softener and stimulant (30% for 2014 vs. 45% for 2015), the z-test was significant: z = -2.28, p = 0.02. When controlling for age for the combined intermittent/daily outcome, age had a negligible relationship, with the binary outcome (e30% = 0.001) and when binary logistic regression was performed, age was not significant (b = 0.004, p = 0.768, 95% CI 0.54 – 1.10) and year was still significant: b = -0.657, p = 0.024 (OR = 0.6). When comparing the two years on infrequent defecation days (17, 17), for 2014.

References

University of San Diego
Academic Motivators

1. National Institutes of Health Grant—site for pilot study
2. External grant funding
3. Faculty/student research and publication
May 19, 2014

Basil Eldadah, MD, PhD, Acting Chief of the Geriatrics Branch

Division of Geriatrics and Clinical Gerontology, National Institute on Aging
Building 31, Room 5C27
31 Center Drive, MSC 2292
Bethesda, MD 20892

RE: letter of intent

Dear Dr. Eldadah,

This letter registers the University of San Diego Hahn School of Nursing and Health Science and St. Joseph Hospital in Orange, CA’s intent to submit an application on June 16, 2014 for National Institutes of Health, Advancing the Science of Geriatric Palliative Care (R21) grant funding (PAR-13-355).
St. Joseph/USD Collaboration
External Grant Funding

- 2013-2014  $25,000
- 2014-2015  $12,500
- 2015-2016  $  500

Total:  $38,000
A Research Collaboration between a Catholic University School of Nursing and Healthcare System: Process and Model

Jane M. Georges, Lucia Gonzales, Patti Aube, Cynthia D. Conelly

Abstract

Collaborations between diverse Catholic organizations will be important in fulfilling the goals contained in the Institute of Medicine (IOM) 2010 document, *The Future of Nursing: Leading Change, Advancing Health*. This article describes a qualitative research study examining the partnership between a graduate-level school of nursing in a Catholic university and a large Catholic healthcare system with multi-state sites. A content analysis methodology is used to characterize the process of the partnership's creation and maintenance. Finally, a model of collaboration between Catholic university schools of nursing and healthcare systems is proposed based upon content analysis with constituent elements of shared charisms, commitment to mutual goals, flexibility in collaborative activities, and mutual synergy.

In its landmark document, *The Future of Nursing: Leading Change, Advancing Health*, the Institute of Medicine (IOM) establishes the primacy of the nursing profession in the improvement of the quality of healthcare services provided to the American public. Specifically, the IOM report contains four key messages regarding the future of nursing: (1) nurses should practice to the full extent of their education and training; (2) nurses should lead in the transformation of healthcare delivery; (3) nurses should engage in policy development and decision-making; and (4) nurses should engage in lifelong learning and continuing professional development.
Combined Outcomes

- 1. St. Joseph Palliative Care Team outcomes were documented.
- 2. St. Joseph's magnet status was renewed demonstrating research projects.
- 3. Two poster presentations were co-displayed at STTI.
- 4. Two applications for NIH grant funding were jointly made.
- 5. $38,000 of external grant funding achieved by USD
- 6. USD Faculty and research team published two publications.
- 7. USD Faculty and research team performed five research projects.
- 8. One USD graduate student participated in on-site research