The “Pharmacy Pearl”: Integrating pharmacy into an interprofessional Master of Science in Palliative Care (MSPC) Program

Shaun E. Gleason, PharmD, MGS; Kristin Spee, PharmD; F. Amos Bailey, MD, FACP FAAHPPM; Regina M. Fink, PhD, APRN, AOCN,CHPN, FAAN
University of Colorado School of Medicine, College of Nursing, Skaggs School of Pharmacy & Pharmaceutical Sciences

BACKGROUND

Quality palliative care (PC) in global communities is scarce.

- The MSPC program, launched AY 2016-17, aims to bridge this gap, through professional education of biomedical and all health professionals in broad-based palliative care skills.

- Pharmacists’ roles in palliative care are growing, but pharmacists are not yet consistently part of PC interdisciplinary teams (IDT). Therefore, contributions vary.

Program design

- Hybrid delivery: Online with onsite intensives
- Faculty and students: PharmD/RPhs, RN/NP/DNPs, PAs, & MD/DOs, social work, psychology, and spiritual care
- Case-based problem-solving using pt/ family/ provider scenarios
- Curriculum woven: Pairs biomedical and psycho-social-spiritual-ethical modules
- Communication skills: live practicum with standardized patients
- Interprofessional teamwork activities and assignments

Curriculum

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>SEMESTER 1</th>
<th>SEMESTER 2</th>
<th>SEMESTER 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core concepts &amp; communication</td>
<td>IOT care: non-pain symptoms A</td>
<td>Communication skills - live</td>
<td></td>
</tr>
<tr>
<td>Basic pain assessment &amp; mgmt</td>
<td>IOT care: non-pain symptoms B</td>
<td>Adv illness - spc settings A</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECOND YEAR</th>
<th>SEMESTER 1</th>
<th>SEMESTER 2</th>
<th>SEMESTER 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems thinking – Capstone prep</td>
<td>Adv illness - spc settings C</td>
<td>PC in community</td>
<td></td>
</tr>
<tr>
<td>Adv illness - spc settings B</td>
<td>Adv concepts in pain (Biomedical)</td>
<td>Master’s capstone</td>
<td></td>
</tr>
</tbody>
</table>

OBJECTIVES

- To assess the “pharmacy pearl” in introducing pharmacy’s role in an interprofessional MSPC program
- To identify potential future roles for pharmacy in the program

PHARMACY PEARL

- Introduced in Semester 2 of program (5 semesters completed to date)
- ~5 min. brief video recordings on pharmacy-related topic
- Topics chosen primarily by other practitioners’ questions and suggestions. Pharmacist recommendation.
- Not directly assessed
- Aligned with adult learning principles:
  - Build on module’s topic
  - Oriented to future practice
    - Relevant
    - Applicable

Assessment

- Pharmacy pearls: Multiple factors assessed:
  - Percent inclusion in module topics
  - Topic categories
  - Subjective tally of number and topic areas where further pharmacy opportunities exist.
- Success as course content
  - Course evaluations – overall and pharmacy instructors
  - Student learning: mean final course grades (%)

RESULTS - 1

STUDENT LEARNING and Course PERCEPTION

- Student mix: N=32 (Pharmacists=2, nurses=20, PAs=4, MDs=4, allied health=2)
- Student learning: 10 courses, course mean = 92.0%
- Course evaluations (10 courses; 5=positive)
  - Mean=4.64 (50.3% mean response)
- Pharmacists’ evaluations (5 courses; 5=positive; 3 applicable questions):
  - Mean=4.83 (80.45 % mean response)

- Pharmacy pearls have been a successful pedagogical method for introducing Pharmacy’s role to an interprofessional MS Palliative Care program.
- To date, pharmacy’s role in the program has been traditional, ie medication consult expertise.
- Along with additional medication expertise, greater information on pharmacist-provided direct patient care roles, including patient/family/provider education and IDT participation, could offer enhanced pharmacy support and profession awareness to the program and its students.
- Limitations: Assessment of topics was subjective, from a non-PC practitioner.
- Future plans: Re-assess students’ PC skills; assess perceptions of pharmacy PC roles and program involvement; begin pharmacist faculty member / clinic role.

RESULTS - 2

<table>
<thead>
<tr>
<th>Pharmacy presence in # of modules</th>
<th>Sem. 1 (Content review)</th>
<th>Semesters 2-5 (Pearls)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacy presence</td>
<td>4/16 or 25%</td>
<td>30/72 or 41.7%</td>
</tr>
</tbody>
</table>

Pharmacy Pearl topics in Modules

- Therapeutic use: 10
- Medication choice/alternate therapies: 5
- Medication review: 4
- Dosing: 4
- Adverse effects / drug-drug interaction: 2
- Routes of administration (*1 also pt educ): 2*
- Pharmacy administration: 2
- Pharmacology / pharmacokinetics: 1

Pharmacy Opportunities

- Patient / Family / Provider education: 17
- Medication expertise (combo of multiple categories from above): 23
- Pharmacy administration: 9

Discussion / Implications

- Pharmacy’s initial role (Semester 1): Lesson planning, content review and modification
- Past data: Students had low perceived PC skill on medication-related issues
  - These program evaluation data are not generalizable.