Horizontal Integration of Interprofessional Competencies into Healthcare and Non-Healthcare Undergraduate Curricula: The Power of Partnerships

Dwayne Hooks, PhD, MSN, BSN, APRN, FNP-BC, NEA-BC, AAHIVS, FACHE
• Learner Objectives
  – At the end of this presentation, attendees will be able to:
    • Identify the four (4) interprofessional core competencies
    • List the ten (10) steps of interprofessional curriculum development
    • Identify the five (5) key areas of the TeamSTEPPS Teamwork Attitudes Questionnaire (T-TAQ)
    • Discuss the benefits of working through an academic-practice partnership model to establish interprofessional curricula and field experiences

• Authors
  – Dwayne Hooks, PhD, APRN, FNP-BC, NEA-BC, AAHIVS, FACHE
  – Lynn Varagona, PhD, MBA, RN, PMHCNS-BC
  – Mary Beth Maguire, DNS, RN, CNE
  – Monica Nandan, PhD, MSW
Disclosure Slide

• None of the authors or collaborating interprofessional faculty have any relevant financial relationships or other conflicts of interests to report.

• No commercial support was received for the development of this interprofessional course or associated research.

• Faculty are employed at Kennesaw State University.

• Collaborating community partner is employed at WellStar Health System.
Kennesaw State University

- Part of the University System of Georgia
- Founded in 1963
- Located in Kennesaw, Georgia (USA)
- 3rd largest university in the USG system
- >33,000 students
- Public coeducational university
- Semester academic calendar
- Upgraded to a “R3” classification
  - Doctoral research institution
Interprofessional Course Conceptualization and Implementation

- Model Utilized
  - Implementation Science Framework
    - Stages of Implementation
      - Exploration
      - Installation
      - Initial Implementation
      - Full Implementation
    - Implementation Drivers
      - Leadership Drivers
      - Competency Drivers
      - Organizational Drivers
Interprofessional Education at KSU
The Beginnings of the Exploration Phase

• Historical Perspective
  – The initial idea
    • No interprofessional educational strategies
      – 2013, enthusiasm among initial participants
        » Business, Social Work, Human Services, Education
        • Osborne High School
          • Resource rich
          • Coordination and collaboration poor
          • Community partner had a need for IPC

• Community engagement initiatives
• Concept presented to Dean’s Council
Interprofessional Education at KSU

• Desired Outcome
  – Teach graduates specific interprofessional knowledge and skills to allow them to work collaboratively and effectively with other discipline professionals during their course of study at KSU (IPEC, 2012)
Interprofessional Education at KSU

• Prevalence of Issue & Community Readiness
  – Social and health issues increasing in complexity
  – Health and wellness related programs available in the WellStar College of Health & Human Services
  – No curriculum in place to integrate learning across disciplines
  – Students trained in silos
  – Healthcare system interested in interprofessional training for graduates that would be entering the healthcare workforce
Interprofessional Education at KSU

• Barriers to success for original group of faculty
  – General loss of traction
    • Hard to keep enthusiasm “alive” over 1.5 years during the exploration stage
  – Lack of funding for curriculum development and faculty compensation
  – Attendance at monthly meetings by diverse faculty
  – Most participants in original group didn't have experience in interprofessional work, teams, or education
  – Limited resources in community engagement office despite significant interest
Should we or should we not proceed?

• Leadership Change
  – Interim Dean – precipitating event in Fall 2014
    • Catalyst for moving the concept of IPE forward
  – Change allowed for the negotiation of:
    • Policies (e.g. faculty workloads)
    • Resources (e.g. faculty incentive, approval of travel expenses for IPEC training, purchasing of literature and films)
  – Initiator of the concept met new faculty who shared same vision and passion for IPE/IPC
    • New faculty took the lead in propelling the idea forward
Selection of Faculty

- Identified faculty who either had interest and/or experience in interprofessional work
  - 6 Faculty and 1 Community Partner
    - 2 new nursing faculty with interprofessional expertise
    - 2 prior faculty members (Education and HS)
    - 1 new nursing faculty identified as an expert in simulation and had extensive knowledge of the T-TAQ
  - Initiator of concept continued
  - Physician from Community Partner
Interprofessional Faculty Team

• Dwayne Hooks, PhD, APRN, FNP-BC, NEA-BC, AAHIVS, FACHE
• Lynn Varagona, PhD, MBA, RN, PMHCNS-BC
• Mary Beth Maguire, DNS, RN, CNE
• Monica Nandan, PhD, MSW
• Kandice Porter, PhD, MCHES
• Judith Slater-Moody, MSW, LCSW, HS-BCP
• Janet Memark, MD
  – WellStar Health System Community Clinic Medical Director
Implementation Drivers: Exploration

• Organizational Drivers
  – Hospitable environment (community engagement, stakeholders interested in the idea of collaboration)
  – Funding – (not available; this was an area of focus)
  – Policy – (since this concept/curriculum was being newly developed, policies were not in place)

• Competency Drivers
  – Confidence of practitioners, skills, training, selection of faculty

• Leadership Drivers
  – Establishing, monitoring, repurposing, & adjusting for the competency and organization drivers
Installation Stage

• Tasks
  – Structures
    • IPEC team of faculty
  – Funding Flow
    • Incentive funding ($1000) + IPEC training (Oct 2015)
  – Recruitment Strategies
    • Flyers; student recruitment sessions in Fall 2015
  – Physical Space & Equipment
    • High-tech classroom space that allowed for video/audio recording; Simulation Lab with faculty observation areas and video/audio recording
  – Training
    • Fall IPEC Institute—2015; Faculty team development and course documents (syllabus) drafted (competencies, contents, assessment linkage grid or course mapping)
Installation Stage

• Tasks, continued
  – Developing policies
    • Syllabus — course approval process, textbook, reading list, competencies, course schedule, assessments
  – Data Systems
    • Assessment tools (e.g., journals, T-TAQ, IPEC Competency Survey Instrument, Revised)
  – Desired outcome
    • Change in scores (pre and post) and in themes in journal/end of course reflection
Implementation Drivers: Installation

• Organization Drivers
  – Hospitable environment (environment continues to be supportive of interprofessional concepts)
  – Funding – (some funding was made available by Interim Dean and Department Chairs)
  – Policy – (Policies were being developed by interprofessional faculty team regarding class organization/needs, curriculum committee reviews were completed)

• Competency Drivers
  – Confidence of practitioners, skills, training, selection of faculty (continues to be strong, enhanced after IPEC Training)

• Leadership Drivers (continues)
  – Establishing, monitoring, repurposing, & adjusting for the competency and organization drivers
Initial Implementation Stage

• Changes in culture, capacity and competencies
  – Chair level leadership on board with the idea of sharing faculty and supporting with resources; no apparent turf issues among faculty nor the leadership of the units involved
  – Course approval process—fear of change and inertia
  – Cross-listing of class (Health Promotion Education; Human Services; Nursing)
  – All faculty taught an overload without comparable remuneration
  – Transformation Zone with systematic use of improvement cycles: limit enrollment per major in the tri-listed course (8 per major); use student feedback during course implementation for revising course assessments and due dates; modify field experience towards a simulation activity; modify physical environment by moving to round table format; changed from individual quiz to group quiz format; use of individual- and team-level personality assessment tool); course specific debriefing tool
Teaching Strategies

• Each faculty member had primary responsibility for one of the interprofessional core competencies
• One faculty member responsible for coordination of simulation activities
• Coaching style format within teams
Interprofessional Core Competencies

• Four IPEC Core Competencies
  – Values/Ethics
  – Roles/Responsibilities
  – Interprofessional Communication
  – Teams and Teamwork
Values/Ethics

• Work with individuals of other professions to maintain a climate of mutual respect and shared values
Roles/Responsibilities

• Use the knowledge of one’s own role and those of other professions to appropriately assess and address the healthcare needs of the patients and populations served
Interprofessional Communication

• Communicate with patients, families, communities, and other health professionals in a responsive and responsible manner that supports a team approach to the maintenance of health and the treatment of disease
• Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan and deliver patient- and/or population-centered care that is safe, timely, efficient, effective, and equitable
Assessment Activities

• Students
  – Weekly reflections posted in discussion forum
  – In-class activities
    • one per core competency
  – Project related to interprofessional team function
    • Scholarly Paper with Individual and Team Performance Reflection
  – Presentation
Implementation Drivers: Initial Implementation

- **Organization Drivers**
  - Hospitable environment (environment continues to be very supportive of interprofessional concepts)
  - Funding – (Funding was made available for travel, resource purchases, faculty honorarium)
  - Policy – (Policies were being developed by interprofessional faculty team regarding class organization/needs, curriculum committee reviews were completed)

- **Competency Drivers**
  - Confidence of practitioners, skills, training, selection of faculty (continues to be strong and the interprofessional team finds value in regular meetings)

- **Leadership Drivers (continues)**
  - Establishing, monitoring, repurposing, & adjusting for the competency and organization drivers
Course Effectiveness Measurements

• TeamSTEPPS 2.0 Teamwork Attitudes Questionnaire (T-TAQ)
  – Administered pre- and post-course \((n=16; \ n=11, \ \text{respectively})\)
  – Hypothesis
    • Post-test score will be greater than the pre-test for each of the T-TAQ dimensions
      – Team structure
      – Leadership
      – Situation monitoring
      – Mutual support
      – Communication
  – Findings
    • Wilcoxon Rank Sum Test (significance, \(p \leq .05\))
      – Team Structure \((p=.007)\)
      – Mutual Support \((p=.038)\)
      – Communication \((p = .003)\)
      – Total Score \((p=.005)\)
Simulation Activities

• Beginning of course
  – Students were assigned to an interprofessional team based on program of study
  – On Day 1 of course, students were provided with a case study (simulation #1)

• End of course
  – Teams were issued another case study (simulation #2)
  – Members of teams reassigned and issued another case study (simulation #3)
Simulation Activities

• Simulation activities were audio and video recorded

• Faculty and students “scored” the teams performance utilizing the IPEC Competency Survey Instrument, Revised
  – Faculty scored all three teams
  – Students scored the team that they performed on as well as a randomly assigned team that they did not perform on [purpose was to assess rater bias]
Outcome: IPEC Video Simulation

– Hypothesis
  • Total pre-test (“my” team) score will be different than total pre-test (different team) [purpose was to identify any rater bias]

– Findings
  • Results were not statistically significant
  • Null hypothesis supported
  • Participants did not show bias when scoring the team that they performed on versus the team that they did not perform on
Outcomes: IPEC Video Simulation

- Hypothesis
  - Total post-test (same team) score will be greater than total pre-test (same team) on each of the dimensions [purpose was to measure course effectiveness]

- Findings
  - Data did not support this hypothesis

- Potential Explanation: Group dynamics, Tool efficacy (IPEC Tool, revision)
Outcomes: IPEC Video Simulation

– Hypothesis
  • Post-test (different team) score is greater than or equal to the pre-test score (same team) [purpose was to measure course effectiveness]

– Findings
  • Hypothesis was supported (Values and Ethics, \( p = .002 \); Interprofessional Communication, \( p = .002 \); Teams and Teamwork, \( p = .005 \); Total Score, \( p = .003 \))

– Explanation: Students able to apply course knowledge and skills to a different group context and simulation
Outcomes: IPEC Video Simulation

– Hypothesis
  • Post-test (same team) score will be equal to or greater than post-test (different team) [purpose was to measure effectiveness of working in the same team (team familiarity)]

– Findings
  • Hypothesis was not supported (different team was scored significantly different than same team)
  • Post-test score on different teams was greater than on same team (Values and Ethics, \( p=.004 \); Interprofessional Communication, \( p=.002 \); Roles and Responsibilities, \( p=.006 \); Total Score, \( p=.002 \))

– Explanations: Group Dynamics; Experience Factor; Familiarity with the tool
Qualitative Findings

• Student reflections
  – Weekly throughout course
    • Analysis in process
  – End of course reflections (themes)
    • Division of labor
    • Use of technology
    • Stressors
    • Accountability
    • An emotional experience
    • A wider lens
Qualitative Findings

• Faculty reflections
  • During course and faculty development
    – Themes
      » Individual characteristics
      » Group composition
      » Driving and restraining forces
      » Team identity and productivity
  • During course delivery
    – Monthly
      » Analysis in process
Framework for Design and Development of an IPE Model

1. Establishing interprofessional infrastructure
2. Planning Team
3. Allowing year-long planning and training for faculty
4. Focusing on interprofessional competencies in course
5. Finalizing pedagogical model
6. Integrating simulations and interprofessional team observations into course
7. Marketing course
8. Implementing course by interprofessional faculty
9. Evaluating course outcomes through simulations with case studies and measurement tools
10. Revising course content in light of evaluation
Conclusions

• Item analysis: learning is occurring
• Group dynamics is an important factor
  – Must address individual team member accountability in order to develop trust
• Restructure content delivery to incorporate Individual- and Team-level Personality Assessment Tool earlier in the course
• More intense faculty coaching within each team over course of semester
• Evening course: fatigue of nursing students
Next Steps

• Continued development and integration
  – Full implementation will continue in Spring 2017
  – Use of grant funding to support continued faculty and course development as well as student recruitment, selection, and scholarships
  – See Model Steps 9 and 10
Contact Information

• Dwayne Hooks, PhD, APRN, FNP-BC
  – Office: 470-578-2182
  – Email address: jhooks6@kennesaw.edu