Purpose: The purpose of this longitudinal cross-sectional study is to examine the effectiveness of a novel hybrid IPE experience focused on veteran population health. Research supports the need to embed interprofessional education (IPE) into curricula. Nonetheless, several authors report that graduates of health science programs appear to lack the skills and confidence needed to incorporate multiple providers' perspectives when designing coordinated care outcomes. Faculty at a small private college in the rural Midwest encountered various obstacles when integrating IPE into a content-saturated education schema. IPE provides pre-licensure students an opportunity to collaborate with other health science students to support the health needs in the community. To engage students in interprofessional (IP) work, the theory of planned behavior framed the development of four independent hybrid modules. This theory posits that the intent to act (i.e., engage in IP work) is influenced by a positive attitude, a supportive social network, and the perceived ability to carry out the behavior. The four modules focus on the key Interprofessional Education Collaborative (IPEC) competencies: ethics, roles and responsibilities, communication, and teamwork. Because of the large number of veterans in the community, this population was selected as the exemplar for the course. This diverse population's culture parallels the four IPEC competencies; a member possesses a defined ethical code, a unique set of roles and responsibilities, specific language and communication procedures, and expects teamwork. To work effectively with veterans, health care professionals need to understand the culturally based constructs of this population, which helps students plan care from a population perspective. Instruction includes methods commonly supported in the literature for IPE including case studies, standardized patients, problem based learning, and simulation. This experience provides students room to explore IP care coordination for a diverse and complex population whose members are exposed to unique environmental and occupational health hazards.

Methods: Following approval of the institutional review board, pre- and post- course measurements of student attitudes toward working interprofessionally, comprehension of key aspects of the veteran culture, and unique veteran health issues were collected over four consecutive semesters (2015-2018) from a convenience sample of senior baccalaureate nursing students in their final year of study (N = 173). To help students translate the four key elements of IP practice into population health, members of the veteran community helped design case studies and volunteered as standardized patients. These learning experiences are infused virtually or as face-to-face encounters with veterans and VHA teams of providers. Examples of the learning experiences include exercises designed to explore professional and veteran cultures and how learned roles and responsibilities affect the care expectations of veterans who experienced sexual trauma, environmentally acquired conditions (e.g., cancer, stress, amputation, head trauma), and observe dynamic interprofessional teams modeled by VHA Patient Aligned Care Teams (PACT). The Interprofessional Attitude Scale (IPAS) was selected to measure changes in student IP work beliefs. Anecdotal data is derived from end of course surveys, completed course assignments such as interprofessional team papers, video reports, in-class presentations, and observed face-to-face patient interviews.

Results: Using the Wilcoxon matched-pairs test, significant changes in students’ views toward IP teamwork, community centeredness, and professional biases are observed with intermediate to large effect sizes. Together, the survey and anecdotal findings suggest that shared IP learning enables students to think positively about other professionals and improves communication as they work on small group projects that are designed to help them understand their own professional limitations as well as
gain a broader understanding of various clinical problems as seen from a variety of different professional viewpoints. Although findings from this study encouraged the interprofessional faculty team that this institution-specific IPE is effective, caution is needed when interpreting these results due to several limitations. This study occurred at a single site and data were self-reported by this convenience sample. During the four consecutive semesters, there was a small change in faculty. Changes in student beliefs are difficult to detect due to a ceiling effect observed in a couple of the survey items.

**Conclusion:** IPE is complex and requires interprofessional faculty commitment and creative educational approaches to provide effective experiences enabling students to align their practice within current theory and technology as well as gain interprofessional skills and confidence to provide effective care to various populations.

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**Title:**
Blending Interprofessional Education and Population Health: Helping Students Gain Interprofessional Skills and Confidence

**Keywords:**
interprofessional education, nursing and veteran

**References:**


**Abstract Summary:**
The effectiveness of a hybrid interprofessional educational (IPE) experience using the veteran population as an exemplar was examined. Pre- and post-course measurements were collected over four consecutive semesters. Changes in students’ views toward IP teamwork, community centeredness, and professional biases were observed with intermediate to large effect sizes.

**Content Outline:**

- **Introduction**
  - Research supports the need to embed interprofessional education (IPE) into curricula to better prepare health science students to improve the health and safety of their patients.
  - Authors report barriers to IPE continue to exist and that many graduates of health science programs lack the skills and confidence needed to incorporate multiple providers’ perspectives when designing coordinated care outcomes as a member of interprofessional teams.

- **Body**
  - A diverse interprofessional faculty teaching team worked through various barriers and developed a novel IPE experience for pre-licensure health science students
    - The IPE experiences is presented in four independent hybrid modules
    - Each module is based on the IPEC competencies.
    - The focus of IPE is coordination of care for the veteran population as an exemplar.
  - Helping students translate the four key elements of IP practice into population health.
    - Members of the community veteran population design case studies and volunteer to be interviewed as a standardized patient.
    - Student experiences may be virtual or face-to-face encounters with veterans and VHA teams of providers.
  - A pre-post longitudinal study using a convenience sample to evaluate the effectiveness of this hybrid course.
    - Survey and anecdotal data were obtained from a convince sample of senior baccalaureate nursing students over four consecutive semesters.
    - Measures of student comprehension of key aspects of the veteran culture, unique veteran health issues, and student attitudes toward working interprofessionally were captured.
  - Significant changes in students’ views toward IP teamwork, community centeredness, and professional biases were observed with intermediate to large effect sizes.
    - Survey and anecdotal findings suggest that shared IP learning enables students to think positively about other professionals and improves communication as they work on small group projects that are designed to help them understand their own professional limitations as well as gain a broader understanding of various clinical problems as seen from a variety of different professions.
  - Limitations
- Single site with a convenience sample.
- Culture of the college might influence responses related to ethics, which is where ceiling effect noted.

**Conclusion**
- IPE is complex and requires interprofessional faculty commitment and creative educational approaches to provide effective IPE to help students learn about the unique environmental and occupation hazards that affect a populations’ health and discover the distinctive professional qualities their peers contribute toward improving health delivery overall.
- This example encourages educators to implement innovative and practical IPE within their own educational context with the aim of improving population and community health.

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