Using the IDEA framework in an interprofessional didactic elective course to facilitate positive changes in the roles and responsibility competency

Todd M. Tartavoulle, DNS, APRN, CNS-BC a, *, Robin English, MD b, h
Tina Patel Gunaldo, PhD, PT, DPT, MHS c, i, Deborah Garbee, PhD, APRN, ACNS-BC d, j
Donald E. Mercante, PhD e, k, Sandra Carlin Andrieu, PhD f, l, Jessica L. Johnson, PharmD g, m

a Louisiana State University Health Sciences Center, School of Nursing, 1900 Gravier, 4C6, New Orleans, LA 70112, USA
b Louisiana State University Health Sciences Center, School of Medicine, Clinical Sciences Curriculum, 2020 Gravier, Suite 618, New Orleans, LA 70112, USA
c Louisiana State University Health Sciences Center, Center for Interprofessional Education and Collaborative Practice, 1900 Gravier Street, 6B14, New Orleans, LA 70112, USA
d Louisiana State University Health Sciences Center, School of Nursing, Undergraduate Nursing Programs, 1900 Gravier Street, 4A21, New Orleans, LA 70112, USA
e Louisiana State University Health Sciences Center, School of Dentistry, 1444 Gravier Street, 6A21, New Orleans, LA 70112, USA
f Louisiana State University Health Sciences Center, School of Dentistry, American Dental Education Association, 1100 Florida Ave. Box, 142, New Orleans, LA 70119, USA
g Xavier University of Louisiana College of Pharmacy, Louisiana State University Health Sciences Center, School of Medicine, 1 Drexel Drive, New Orleans, LA 70114, USA

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A B S T R A C T

Interprofessional education (IPE) has become an important component of health professions curricula due to evidence that interprofessional collaborative practice improves health outcomes for patients. To increase opportunities for IPE for learners in our institutions, an IPE elective was developed for students in the schools within Louisiana State University Health Sciences Center and Xavier University College of Pharmacy in New Orleans, Louisiana. The IDEA framework, a published framework for IPE curriculum development, was utilized to design learning activities. To assess the effect of using the IDEA framework to target the Interprofessional Education Collaborative (IPEC) competency related to roles and responsibilities, the Readiness for Interprofessional Learning Scale (RIPLS) was administered to students before and after the course. Comparison of the results showed a significant positive difference on items within the roles and responsibilities subscale after participating in the course. Developing the curriculum using the IDEA framework likely contributed to this effect by intentionally providing ample time for interaction and designing learning activities aimed at helping students recognize one another’s roles and contributions to health care.

C o r r e s p o n d i n g  a u t h o r.
Tel.: +1 504 568 4013.
E-mail address: ttarta@lsuhsc.edu (T.M. Tartavoulle).

T e l . : +1 504 568 2467.

T e l . : +1 504 568 4423.

T e l . : +1 504 568 4183.

T e l . : +1 504 568 5981.

T e l . : +1 504 941 8111.

T e l . : +1 504 520 5352.

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**Activity description**

Course directors used the IDEA framework\(^1\) to develop a two-credit-hour didactic IPE elective course targeting health professions students in early to mid-professional training from seven schools: Allied Health, Dentistry, Graduate Studies, Medicine, Nursing, Pharmacy and Public Health. Course learning activities were designed to promote interprofessional cultural competence, reduce profession-centric views, and enhance interprofessional learning.

The course placed a large emphasis on familiarizing and understanding one’s roles and the roles of other health care team members based on program curriculum, scope of practice and clinical responsibilities. All class activities and assignments focused on increasing student awareness about their respective professional roles and responsibilities in a team-based approach to health care. Table 1 provides an overview of the IDEA concept and the course activities utilized to meet each objective. At some level, all of the class activities and assignments focused on students discovering their professional roles and the roles of others when working together in teams.

**Interaction**

Each class session included a component where “Interaction” occurred. For example, on the first day of class, students were introduced to their small group team members. Each small group consisted of approximately 10 students representing at least 6 different health professions. Their first small group activity required students to “Build Your Team.” This exercise promoted Interaction (I) and Data collection (D).

- **Build Your Team Individual Component** — Students were presented with the following scenario: Your mom has been complaining of upper neck pain, jaw pain and headaches. Name three health care providers you would want on her team.
- **Build Your Team Small Group Component** — Students were asked to communicate within their group and prioritize the three health care providers. This was the students’ first opportunity to begin collecting information on various health care professions.
- **Build Your Team Large Group Discussion** — Small groups presented their selection and rationale to the entire class, then compared and contrasted health care provider selections across the small groups and discussed their selection process.

**Data collection**

Students had an opportunity to collect Data (D) through a health care provider interview assignment. Students were given the following instructions: The purpose of this assignment is to become familiar with other members of a patient's health care team and discover the current application of interprofessional teams in health care. The following questions should be used as a guide for the interview. We hope that you will be able to spend about 30 min with a health care provider. Examples of guiding interview questions included:

- What type of patients do you see in your practice?
- Are there specializations or certifications related to your practice or profession? Are you required to obtain a specialization/certification?
- What is the future of your profession? What challenges does your profession face? What are current health care challenges you face on a daily basis?
- How has your practice evolved over time?
- Do you perceive that a hierarchy exists between health care professionals?
- Do you feel that your profession or you as a practitioner receive respect from other health care professionals?
- Do you think there are any barriers to working in interprofessional teams? What barriers exist in your clinical practice?

Students were asked to reflect upon the answers provided to them during the interview process. As a component of a large group discussion, students were given time to share their interview experience. In addition, answers to questions were compiled and sorted for themes and presented to the class. For example, a Wordle\(^6\) was created from the statements asking for barriers to working in interprofessional teams (Fig. 1). As a class, the students discussed the themes and commonalities identified between professions.

**Expertise**

It was during the four case-based small group sessions that students had the opportunity to discuss their perceptions regarding treatment (E = Expertise). Students were presented with questions to answer as individuals prior to the small group sessions. Individual case pre-questions included, “What do you think is the most...

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[Table 1]
IDEA framework for learning objectives and course Activity design.

<table>
<thead>
<tr>
<th>IDEA framework/learning objective</th>
<th>Course activity design</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Interaction — students have the opportunity to work with others from different professions</td>
<td>Case-based studies, small group discussion (Build Your Team)</td>
</tr>
<tr>
<td>D Data — students have the opportunity to collect accurate information about other professions</td>
<td>Case-based studies, health provider interview, small &amp; large group discussion</td>
</tr>
<tr>
<td>E Expertise — students have the opportunity to openly discuss their perceptions regarding patient treatment</td>
<td>Case-based studies, small &amp; large group discussion</td>
</tr>
<tr>
<td>A Attention — students have the opportunity to reflect on their own personal and professional culture (assumptions and biases) of other team members</td>
<td>Health provider interview essay, support group attendance reflection, large group discussion topics (interprofessional cultural competence, managing interprofessional conflict)</td>
</tr>
</tbody>
</table>

[Fig. 1. Barriers to interprofessional practice Wordle\(^6\) developed using themes from students’ health professional interview.]
pressing problem?” and “What additional history would you like to know and why is that history important to you?” When students convened in their small groups, they shared their answers and collaborated on a plan of care. After an initial discussion, the students were presented with additional information about the case.

Each case was designed to highlight the strengths and potential contributions of two or three professions, ranging from medicine, dentistry, nursing, and pharmacy to physical or occupational therapy, social work, and public health. Together, the students discussed pertinent issues such as medication use, nutritional status, community resources, and health policy/regulations, and developed a final, interprofessional plan of care for the scenario.

Attention

There were several opportunities for students to reflect on personal and professional biases (A = Attention). In one large group discussion activity, students were asked to reflect on professional dress codes. Two pictures of health care teams were displayed and students were asked to guess the professions of the health care providers in the pictures based on attire. The following questions were then asked of students, “What if all health care team members dressed in scrubs and white lab coats? Would this confuse the patient? How would that make you feel? How could we avoid confusing the patient if everyone had the same dress code?”

An assignment involving support groups also provided the students with the opportunity to pay attention to any biases regarding the incorporation of support groups in a plan of care. The students were asked to attend and observe a support group of their choice. After observation, students were asked to reflect upon the experience, answering questions such as “What are your thoughts about your group experience” and “What benefits/limitations did you observe during the support session?” This support group experience was enlightening to many students, as a support group leader may not be traditionally seen as a member of the health care team.

Assessment

The RIPLS was used to assess the learning objective associated with the IPEC competency related to roles and responsibility. The RIPLS is a 19-item measure of student attitudes toward engaging in interprofessional learning and uses a 5-point Likert Scale. The instrument contains four subscales including Teamwork and Collaboration (items 1–9, total possible score 45), Negative Professional Identity (items 10–12, total possible score 15), Positive Professional Identity (items 13–16, total possible score 20), and Roles and Responsibilities (items 17–19, total possible score 15).

A pre and post RIPLS was embedded in the IPE elective course in 2013 and 2014. Consent was implied by completion and submission of the RIPLS. Ethics approval was obtained from the Institutional Review Board at LSUHSC in New Orleans.

The mean changes from pretest to posttest for each of the four subscales were compared using paired t-tests. McNemar’s test was used to detect proportions of responses that changed from pre-to post-test for each of the 19 items of the RIPLS. Statistical analyses were performed using PROC FREQ, PROC GENMOD and PROC TTEST in SAS, version 9.3. Statistical significance was conservatively based on a Bonferroni corrected Type I error rate determined by dividing the nominal Type I error rate of 5% by the number of comparisons.

After the data were cleaned for missing or incomplete pre- and post-tests, 66 and 71 corresponding pre and post RIPLS data sets remained for 2013 and 2014, respectively. Paired t-test results indicated the roles and responsibilities subscale was the only subscale with a significant pre-post test difference for both years. One item within the Roles and Responsibilities subscale (item 18: I am not sure what my professional role will be) indicated a statistically significant difference between pre and posttest for both years. The decrease in score denotes an improved score in these items because they are negatively worded (Table 2).

Evaluation

Course activities were evaluated each year by students using an end-of-course evaluation form. Consistently, students reported the course had a positive impact on their perspectives of IPE. Selected student quotes include:

“I think this elective has helped all of us understand each other’s professions better and helped break down walls between them.”

“This elective helped me to understand the importance of other health provider’s roles in providing the best care for patients.”

Students consistently reported that the most effective activities were case studies and small group discussions. Large group discussions were perceived as least valuable and most likely to get off track or waste time. Large group discussions were also perceived by students to sometimes get argumentative or create situations where students felt defensive.

Each year, in response to student and faculty feedback on course activities, course directors met to revise the course activities with the goal of increasing the small group component and focusing activities on roles and responsibilities competencies. Course directors are also working to ensure more even distribution of enrollment from various schools, ensuring fair representation from each profession for small group discussions.

Impact

According to Pecukonis, Doyle, and Bliss, utilizing the IDEA framework within an interprofessional curriculum should assist students in developing interprofessional cultural competence and learn how to work competently with other disciplines. We attribute the significant change noted in the roles and responsibilities subscale to the various activities implemented throughout the course reflecting the IDEA framework. According to the RIPLS and course evaluations, the course utilized the IDEA methodology to

<table>
<thead>
<tr>
<th>Table 2 Quantitative RIPLS results.</th>
<th>Mean Pre-test</th>
<th>SD</th>
<th>Mean Post-test</th>
<th>SD</th>
<th>P value</th>
<th>Test statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teamwork &amp; collaboration</td>
<td>41.39</td>
<td>3.83</td>
<td>41.71</td>
<td>3.69</td>
<td>0.7814</td>
<td>t = 0.28</td>
</tr>
<tr>
<td>Negative professional identity</td>
<td>13.12</td>
<td>1.94</td>
<td>13.24</td>
<td>1.92</td>
<td>1.0000</td>
<td>t = 0.00</td>
</tr>
<tr>
<td>Positive professional identity</td>
<td>17.73</td>
<td>2.27</td>
<td>17.65</td>
<td>2.59</td>
<td>0.2626</td>
<td>t = –1.13</td>
</tr>
<tr>
<td>Roles and responsibilities</td>
<td>8.05</td>
<td>2.29</td>
<td>7.38</td>
<td>2.28</td>
<td>&lt;0.0001</td>
<td>t = –4.48</td>
</tr>
</tbody>
</table>

*a Denotes significance.
assist students in decreasing their profession-centric views and increasing their interprofessional cultural competence.

Pecukonis and Wackerhausen argue that professional cultures are a barrier to interprofessional cultural competence and collaboration. Professional identities are shaped by individual and cultural aspects ranging from attire and language terms to legal scope of practice boundaries. Being members of various health care professions impacts self-concept and social identity. It is from these group associations and silos that health care professionals begin to develop biases and prejudices about other health care providers. Integrating the IDEA framework into the various course activities allowed students to explore internal biases while collaborating with team members in a supportive environment.

The use of IDEA supported the development of student dual identities through the interprofessional socialization framework. Interprofessional collaborative practice requires two identities: self/professional and team/interprofessional. In order for students to create this dual identity, the interprofessional socialization framework recommends a three stage approach: 1) break down existing uniprofessional biases about other health care professions, 2) engage in interactions with other health care professions to increase knowledge of others roles and skills, and 3) create environments where different perspectives are valued and reflected upon. Ultimately, these three stages should be repeated in order to provide the student with varying experiences.

The course directors believe that the case-based facilitating questions in combination with the focus on promoting interprofessional cultural competence through IDEA and the interprofessional socialization framework strengthened positive significant changes in the roles and responsibilities perceptions as assessed by RIPLS. Through the course activities, students were asked to examine and define their roles and responsibilities in relation to other student team members. Students learned how their professional roles were similar or overlapped with other team members, and in other situations students learned how their unique role was complementary to the team’s role of providing patient-centered care.

**Required materials**

Two articles provide information regarding the IDEA framework, which would be beneficial to faculty members engaged in IPE activities. Other activity resources, including cases, facilitation guides, and reflection questions are available by request.

**References**