



Improving Interdisciplinary Collaboration through Learner-Developed and Learner-Driven IPE Curriculum



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Introduction

Medical errors arise from lack of collaboration and miscommunication among health professionals (Fewster-Thuente & Velsor-Friedrich, 2008). In 2010, the World Health Organization concluded that "interprofessional education enables effective collaborative practice which in turn optimizes health-services, strengthens health systems and improves health outcomes." In 2006, UCSF implemented an interprofessional education (IPE) curriculum for all 475 first-year learners in the programs for dentistry, medicine, masters entry program in nursing, pharmacy and physical therapy.

Purpose

The 2011-12 IPE curriculum development team of students from each of the professions and their faculty mentors responded to 2010-11 student feedback [3] and current IPE literature [4] both of which underscored the importance of engagement in group-based, authentic interprofessional experiences, by enhancing the curriculum and assessment plan in four ways:

1. Extensive small group, longitudinal interaction, including creation of a new problem-based learning case appropriate to first-year learners from all UCSF professional schools
2. Longitudinal group projects to address authentic UCSF clinic and San Francisco community needs
3. A new competency-based pre- and post-curriculum assessment tool
4. Expanded recognition for participant learning

Materials and Methods

- This IPE curriculum consists of three components: 2 organized half-day exercises (referred to as Days 1 and 2) and a yearlong longitudinal community-based project. Day 1 focuses on a standardized patient monologue and skit, a health policy discussion and the roles and responsibilities of the health professions.
- Day 2 occurs three months later and focuses on a facilitated patient case discussion in small breakout rooms throughout campus. The longitudinal projects are community-based projects for which organizations and clinics in the San Francisco Bay area expressed a need for assistance
- The curriculum was evaluated with a novel competency-based pre- and post-assessment survey using competencies chosen from the "Core Competencies for Interprofessional Collaborative Practice" report released by the Interprofessional Education Collaborative in May 2011. Responses to this survey were analyzed for reliability using cronbach's alpha, variance (ANOVA and ANCOVA), and for significant change (p < 0.05) in response from baseline (pre-survey). Pre- and post- survey responses were matched by the last 4 digits of learner's telephone numbers. In addition, each individual component of the curriculum was evaluated by learners with post-event satisfaction surveys.



Figure 1: Key words of the IPHE competencies

Results

Day 1 Satisfaction Survey (N = 434, 91% response)

- 80% agreed the interactive patient case scenario between the Deans and standardized patient helped their understanding of the roles and responsibilities of the health professions
- 77% agreed that Day 1 was an effective session overall
- 78% agreed that Day 1 complemented their education

Day 2 Satisfaction Survey (N = 430, 90% response)

- 73% of students agreed that the IPE Day 2 experience complemented their professional education
- 75% felt overall it was an effective session.

Table 1: Pre/Post Competency Survey: Percent Respondents by School (N = 118)

Dentistry	10.2%
Medicine	39.0%
Nursing	17.8%
Pharmacy	24.6%
Physical Therapy	8.5%

Pre/Post Competency Survey (N = 118)

- Demographics were representative of each class
- Reliability of test items by obtaining Cronbach's alpha showed acceptable to good reliability for the domains of Communication, Values/Ethics, and Teamwork. Roles and responsibilities survey items were found to have unacceptable reliability (see table 2). Reliability improved with removal of reverse scored items.
- Some change occurred in student's self-report of pre/post competency; however, this was found to not be statistically significant

	Pre-test	Pre-test without reverse scored item	Post-test	Post-test without reverse scored item
Communication	0.777	-	0.803	-
Roles and Responsibilities	0.26	0.472	0.156	0.434
Values and Ethics	0.803	0.858	0.698	0.76
Teamwork	0.484	0.639	0.621	0.796



Figure 2: Hot Topics for Day 1 Discussion

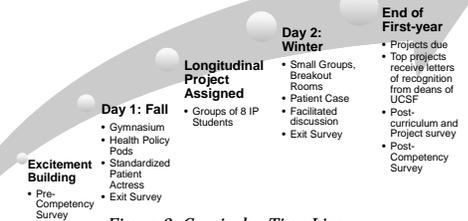


Figure 3: Curricular Time Line

Discussion

- The Pre/post survey has room for improvement. The survey items form a reliable scale (with exception of reverse-scored items), but there is no evidence to date that they are sensitive to the intervention.
- This study shows that it is possible to create reliable assessment tools that are competency-based and together show internal consistency to the IPEC domains. The challenge lies in designing IPE curricula that is meaningful and provides students with the opportunity to improve their competency in the interprofessionalism.
- The results of the pre/post survey suggest that the curriculum did not impact achievement of competency. However, this tool has not been studied longitudinally and therefore it is unknown whether learners achieve interprofessional competency through additional IPE curricula past the first-year experience.
- Students enjoyed both Days 1 and 2 and these were successful IPE activities.

References

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