



# Examining Attitudes of Pre-health Students toward Interprofessional Education in a Summer Enrichment Program: A Pilot Study

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## Background

Pipeline programs are initiatives that take many forms, but often serve to strengthen the readiness and applicant profiles of students pursuing entry to health professions training programs. Summer enrichment pipeline programs can include a wide array of components, which may encompass academic preparation, career exploration, learning and study skill development, and professionalization to students' selected careers (Alexander & Mitchell, 2010). A review of dental enrichment programs by Alexander and Mitchell (2010) indicated that pipeline programs were an important strategy to diversifying the dental profession through an increase in applicants. It seems reasonable to assume that support and preparation provided by pipeline programs may have similar positive outcomes in other healthcare disciplines.

Professionalization to future careers is an important aspect of summer enrichment pipeline programs. Interprofessional education (IPE) is a key component of preparing students for their future careers. IPE contributes to demonstrated substantial improvement in collaborative team behavior (Morey et al., 2002) and patient satisfaction (Campbell et al., 2001). IPE also improves professional competency, role clarity, and provider knowledge and skills (Hallin et al., 2009; VanderWielen et al., 2014).

A study of professional students in medicine, nursing, occupational therapy and physical therapy found that students had already developed opinions on interprofessional learning at the time of their clinical training, with medical students presenting the least positive opinions (Medves et al., 2013). This suggests that health professional students are forming opinions regarding IPE before beginning their health professions training programs.

## Objective

While little is known about pre-health students' attitudes toward IPE, it appears that students are forming opinions regarding IPE before entering their health professions training programs. Introducing IPE to pre-health students may be beneficial to shaping perspectives earlier in the educational pathway.

The Summer Academic Enrichment Program (SAEP) introduces pre-health students to IPE through exploration of health professions disciplines in small groups, as well as through a large, interprofessional team exercise in the form of a case study presented by health professionals and academic faculty.

Through a pre-post program evaluation approach, this study aimed to examine the attitudes toward IPE of pre-health students in four different health professions disciplines before and after participating in the SAEP at Virginia Commonwealth University (VCU).

## Participants & Setting

Participants include students enrolled in the SAEP during the summer of 2014 at Virginia Commonwealth University. A total of 51 students participated; 19 pre-dentistry, 12 pre-medicine, 10 pre-pharmacy, and 10 pre-physical therapy. Only students present for all pre- and post-program assessments, course exams, and surveys were included in the program evaluation analysis.

## Measures & Data Collection

Students completed the Attitudes Toward Health Care Teams Scale (ATHCTS; Leipzig et al., 2002) and the Revised Readiness for Interprofessional Learning Scale (RIPLS; McFayden, Webster, & MacLaren, 2006). Versions of the scales were selected based on literature searches that indicated the scales had previously been used with student populations.

Subscales used for analysis in the evaluation are attitudes toward team efficiency (5 items; pre  $\alpha = .819$ ; post  $\alpha = .698$ ), attitudes toward team value (10 items; pre  $\alpha = .766$ ; post  $\alpha = .700$ ), and teamwork and collaboration (9 items; pre  $\alpha = .792$ ; post  $\alpha = .810$ ). All items on the ATHCTS and RIPLS were measured on a scale of 1 (strongly disagree) to 6 (strongly agree).

## Results

Descriptive statistics and internal reliability were calculated for each subscale at the beginning and end of the program (see Table 1). Results of a one-way ANOVA from the pre-assessment indicated statistically significant differences in attitudes toward team value at the beginning of the program ( $F(3, 41) = 3.13, p = .036, r = .431$ ), with pre-pharmacy students reporting more positive attitudes toward team value than pre-dental students. Group differences were not observed at the conclusion of the program. Means on all subscales significantly increased by the end of the program.

**Table 1: IPE Subscales Overall and by Pre-health Concentration**

	N	PRE	POST	p value
Attitudes toward Team Efficiency				
Dentistry	16	4.29	4.78	.021
Medicine	12	4.3	4.77	.055
Pharmacy	7	4.6	4.89	.328
Physical Therapy	10	3.84	4.48	.056
Total Group	45	4.24	4.72	.000
Attitudes toward Team Value				
Dentistry	17	4.74*	5.52	.000
Medicine	11	4.96	5.49	.006
Pharmacy	7	5.41*	5.61	.251
Physical Therapy	10	4.87	5.43	.007
Total Group	45	4.92	5.51	.000
Teamwork and Collaboration				
Dentistry	18	5.5	5.72	.055
Medicine	12	5.52	5.72	.080
Pharmacy	7	5.78	5.83	.604
Physical Therapy	9	5.7	5.85	.242
Total Group	46	5.59	5.76	.003

## Discussion

The SAEP evaluation found differences in attitudes toward team value at the beginning of the program, with pre-pharmacy students reporting more positive attitudes than pre-dental students. Differences in student attitudes has been reported, with Medves et al., (2013) finding that medical students displayed less positive attitudes toward IPE than their peers. The SAEP results provide preliminary support to our assertion that pre-health students may have varied perceptions of IPE before admissions to health professions training programs.

The SAEP results also indicated that student attitudes toward IPE became significantly more positive during the program. The SAEP engaged students in IPE through sessions to promote in-depth understanding of each program discipline and then applying that knowledge in the form of a case study. This specific approach to IPE, educational sessions and then applied learning, may be an influential contributor to impacting student attitudes toward IPE.

These results have implications for program planning and development. Program administrators should consider that pre-health students may enter programs with differing perceptions and levels of receptivity toward IPE. The SAEP evaluation protocol has been expanded to include qualitative responses regarding students' beliefs of how their attitudes toward IPE were impacted during the program. This will allow for exploration of students' perceptions and understanding of specific programmatic components that may contribute to improving attitudes toward IPE.

## References

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