



The Summer Academic Enrichment Program: Exploring the Impact of a Pipeline Program on Students' Perceptions of Interprofessional Teams

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Background

Summer health careers pipeline programs include focused programming intended to enhance the competitiveness of students pursuing health professions training programs. This is accomplished through varied activities including academic and career exploration, to name a few (Alexander & Mitchell, 2010). The Summer Academic Enrichment Program (SAEP) at Virginia Commonwealth University (VCU) is an academically intensive pipeline program for pre-health students interested in attending health professions programs in dentistry, medicine, pharmacy, and physical therapy.

Beyond academic preparation, SAEP introduces students to interprofessional education (IPE), as this is an important aspect of preparing students for their future academic and professional environments. IPE has shown to increase role clarity and professional competency (Hallin et al., 2009). IPE has also demonstrated a positive impact on attitudes toward shared learning and communication skills of health professional students (Medves et al., 2013), but less is known about the perceptions and attitudes of pre-health students.

Objective

Effectiveness of SAEP's IPE activities in improving attitudes toward healthcare teams have been measured since the inception of the program by utilizing the Attitudes Toward Health Care Teams Scale (Leipzig et al., 2002). Several programmatic activities are incorporated to introduce students to IPE and other health careers. Each year, SAEP participants have reported more positive attitudes toward "team value" and "team efficiency" after participating in the program. Program IPE activities are identified in Table 1.

Table 1. SAEP Interprofessional Education Activities

Program Activity	Description
Discipline Exploration	Interprofessional student teams spend a session with each of the four participating professions to explore its role in delivery of healthcare
IPE Case Study	Interprofessional student teams use a patient case study to explore how each member of the team contributes to the care of a patient
Volunteer Foot Clinic	Interprofessional student teams perform foot exams, blood pressure checks, and glucose screenings

In the summer of 2015, qualitative items were added to the program evaluation to explore student perceptions of what aspects of the program are most meaningful in shaping their perspectives of healthcare teams.

Participants & Setting

Participants include students enrolled in the 2015 VCU Summer Academic Enrichment Program. A total of 47 students participated; 15 pre-dentistry, 12 pre-medicine, 10 pre-pharmacy, and 10 pre-physical therapy.

Measures & Data Collection

The Attitudes Toward Health Care Teams Scale was administered at the beginning and the end of the program. The attitudes toward team efficiency (5 items; pre $\alpha = .693$; post $\alpha = .614$) and attitudes toward team value (11 items; pre $\alpha = .840$; post $\alpha = .841$) subscales were used for analysis. Subscales were measured on a scale of 1 (strongly disagree) to 6 (strongly agree). Free response questions were included on the post-program survey to explore students' feedback of activities that impacted their perceptions of healthcare teams. A sample question is: "What activities or workshops during the program impacted your perception of healthcare teams?"

Results

Descriptive statistics and internal reliability were calculated for each subscale at pre- and post-program. Paired *t*-tests indicate significant increases in each subscale after the program. Quantitative results are presented in Table 2.

Table 2. Mean Scores on Attitudes Toward Health Care Teams Subscales

	N	PRE	POST	p value
Attitudes toward Team Efficiency	45	4.55	4.95	.000
Attitudes toward Team Value	43	5.17	5.61	.000

Qualitative data were analyzed using an in-vivo coding process. A three member research team developed and applied a unique coding structure to the open-ended text. Frequency of code use was used to determine activities identified most often by students and to assist with identifying emerging themes. Results indicated that students perceived a wide array of activities having an impact on their perceptions with Discipline Exploration (23), IPE Case Study (16), and the Volunteer Foot Clinic (7) being mentioned most often. Table 3 includes a list and description of the three themes.

Table 3. Emerging Themes from Qualitative Data

Theme	Description
1	Individual activities were identified as impactful for different reasons
2	Students openly acknowledged lack of understanding of healthcare teams and other professions
3	Initial lack of understanding differed by profession

Theme 1: Individual Activities Identified as Impactful for Different Reasons

Students expressed different reasons for selecting each of the top three activities. Discipline exploration provided students an "awareness" of other professions; the IPE Case Study allowed students to understand the benefits of a team and how patient outcomes can be improved through teamwork; the Volunteer Foot Clinic provided the opportunity to see the team in action.

Results Continued

Theme 2: Students Openly Acknowledged Lack of Understanding of Healthcare Teams and Other Professions

Several student responses indicated a lack of understanding of the healthcare team and roles of other health professions. Responses included references to believing some health professionals might feel their role were being "trampled" on if they operated in teams. Other students referred to an overall lack of knowledge at the beginning of the program, with one student writing, "I had no idea how much I didn't know about some professions."

Theme 3: Initial Lack of Understanding Differed by Profession

Growth of "understanding" of different professions was not standard across disciplines. Table 4 provides a breakdown of findings and responses.

Table 4: Findings and Quotes for Theme 3

Profession	Findings	Sample Quote
Dentistry	Focused on role on healthcare team	"I hadn't thought about dentists...and their role in the healthcare field"
Medicine	Focused on what an MD is not responsible for	"I have a sense of relief knowing the pressure is not all on the physician..."
Pharmacy	Breadth of knowledge and locations of practice	"Now I know pharmacists aren't just standing behind counters in drug stores"
Physical Therapy	Understand difference between PT and MD	"I...believed physicians were responsible for various treatments that [PTs] did"

Discussion

The quantitative results of this study are consistent with previous evaluations of the program that indicate improved perceptions of team value and efficiency after participation. Qualitative results, however, indicate that it was a wide array of activities that contributed to improving these perceptions and that each was identified for specific reasons. While we had anticipated the IPE Case Study or Volunteer Foot Clinic may have been most impactful, results indicate the importance of starting with the basics, and perhaps clearing up misconceptions of other professions, as a priority for students.

References

- Alexander, C.J., & Mitchell, D.A. (2010). The role of enrichment programs in strengthening the academic pipeline to dental education. *Journal of Dental Education*, 74(10S), S110-S120.
- Leipzig, et al. (2002). Attitudes toward working on interdisciplinary healthcare teams: A comparison by discipline. *Journal of the American Geriatric Society*, 50(6), 1141-1148.
- Hallin, K., et al. (2009). Active interprofessional education in a patient based setting increases perceived collaborative and professional competence. *Medical Teacher*, 31(2), 151-157.
- Medves, J., et al. (2013). The QUIPPED Project: Students' attitudes toward integrating interprofessional education into the curriculum. *JRIPE*, 3(1), 3-21.

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