

Team-Based Learning Curriculum and Interprofessional Collaboration Attitudes of Pre-Health Professional Students

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Introduction & Background

- IPE curriculum has the potential to address barriers to collaboration in practice
- The development of interprofessional collaborative competencies may help prevent medical errors and negative patient outcomes
- Globally, preventable medical errors account for approximately 80% of patient adverse events

Purpose & Aims

This study aimed to assess the effects of an evidence-based interprofessional team-based learning (IPTBL) curriculum on interprofessional collaboration attitudes of pre-health professional students enrolled in a 3-credit service-learning seminar course.

Hypotheses/Aims:

- Increased readiness for interprofessional learning
- Higher readiness assurance for team learning

Methods

Design: Pre- and post-test design of self-reported student measures

Sample: Pre-health professional students in a service-learning seminar course

Measurement Tools

- Readiness for Interprofessional Learning Scale
- Individual and Team Readiness Assurance Tests

Intervention: Care coordination module taught with IPTBL curricular methods

Results

Table 1. Demographic Characteristics

Sample Size		N = 15	
Age, mean (SD)	20.67 (1.047)	Major	
Gender, n (%)		Health Behavior Science	2 (13.3)
Man	3 (20.0)	Biology	2 (13.3)
Woman	11 (73.3)	Med Lab Sci/Diagnosis	2 (13.3)
Non-binary	1 (6.7)	Neuroscience	2 (13.3)
College grade level, n (%)		Psychology	3 (20.0)
Freshman	0 (0)	Sociology	1 (6.7)
Sophomore	2 (13.3)	Exercise Science	1 (6.7)
Junior	5 (33.3)	Applied Molecular Bio	1 (6.7)
Senior	8 (53.3)	Human Services	1 (6.7)
Previous IPE experience		Pre-professional category	
Yes	1 (6.7)	Pre-Medicine	6 (40.0)
No	14 (93.3)	Pre-Physician Assistant	3 (20.0)
		Pre-Social Work	2 (13.3)
		Pre-PT/OT	2 (13.3)
		Public Health	1 (6.7)

Table 2. Descriptive Statistics for Aim 1

		Pre-test (N = 15)	Post-test (N = 15)	Score Differences (N = 15)
Subscale 1: Teamwork and Collaboration	Mean	40.53	42.33	1.8
	SD	4.55	3.31	5.57
	Median	42	43	1
	IQR	9	4	5
Subscale 2: Professional Identity	Mean	27.87	27.4	-0.47
	SD	2.26	1.64	2.72
	Median	28	28	0
	IQR	3	3	4
Subscale 3: Roles and Responsibilities	Mean	5.53	5.4	-0.13
	SD	1.85	2.50	3.31
	Median	5	5	0
	IQR	3	4	5
Summary Score	Mean	73.93	75.13	1.2
	SD	5.75	4.49	6.77
	Median	76	75	1
	IQR	10	7	10

Results

Table 3. Descriptive Statistics for Aim 2

Summary Score	iRAT	tRAT
Sample Size	N = 15	N = 4
Mean	6.93	8.75
SD	1.91	0.43
Median	7	9
IQR	2	1

Aim 1

- Median 1-point decrease in overall readiness for interprofessional learning ($Z = 0.509, p < 0.05$)
- Median 1-point increase in readiness for teamwork and collaboration ($Z = 0.277, p < 0.05$)
- No change in the median for professional identity ($Z = 0.461$) & roles and responsibilities ($Z = 0.753, p < 0.05$)

Aim 2: Median 2-point increase from the iRAT to tRAT

Conclusion

Benefits may include:

- Higher readiness assurance for team learning in comparison to individual learning
- More positive perceptions of interprofessional teamwork and collaboration

Dissemination

- Findings presented to Lori's Hands leadership to help guide future IPE initiatives
- Submittal to conferences and peer-reviewed journals that are industry-specific to health and/or medical education