

Changing Student Attitudes Toward Interprofessional Learning and Collaboration Through Interactions with Healthcare Mentors: Findings from a Mixed Methods Approach

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INTRODUCTION & BACKGROUND

An increasing number of academic institutions are including opportunities for interprofessional learning (IPL) and collaboration (IPC) in the curriculum of its students studying to become health care and human service professionals. Faculty and schools are being encouraged to create learning experiences that foster the skills needed to work on interprofessional teams. Educational experiences requiring cooperative problem-solving around real life, clinical issues helps students to best learn with, from and about their peers in other professions. Multidisciplinary educational experiences must be perceived by students as relevant to their future clinical practice for interprofessional learning to occur. As educational partners, healthcare mentors (HCM), who are individuals living with one or more chronic health conditions, may offer faculty opportunities to create highly effective and authentic learning experiences.

PURPOSE

The purpose of this study was to examine the effectiveness of a 6-hour curricular experience involving HCM in changing student attitudes toward interprofessional learning (IPL) and collaboration (IPC).

METHODS

Participants. Thirty-eight students from clinical psychology, nursing, physical therapy and social work participated in the study. The HCM-IPL or intervention group (n=19) participants were selected based on being designated for the IPL experience. The control group (n=19) was randomly selected from the larger student body. The HCMs (n=3) had a diagnosis of relapsing-remitting multiple sclerosis

Materials. Three surveys were completed pre and post-IPL: (1) the Interdisciplinary Education Perception Scale (IEPS) - measures student perceptions toward collaboration with other professional disciplines; (2) the Readiness for Interprofessional Learning Scale (RIPLS) – examines student preparedness for educational activities designed to increase effectiveness in collaborative practice; and (3) the Attitudes Toward Health Care Teams Scale (ATHCTS) – developed to compare the attitudes toward teamwork and collaboration.

Learning Experiences. Table 1 outlines the learning experiences that were completed the HCM-IPL group.

Data Analysis. A 2 (group: HCM-IPL versus control) by 2 (time: pre versus post-IPL) repeated measures ANOVA was implemented. Alpha was set at p<.05. The interview data were transcribed verbatim and a constant comparative approach was used to code the responses for categories.

RESULTS

Participant demographics are presented in Table 1. The percentage of participants who self-reported having opportunities to work with other healthcare professionals was relatively similar.

IEPS. For the HCM-IPL group, the means were lower than the control group prior to the IPL experience. However, the HCM-IPL demonstrated a statistically significant increase in their mean scores for competency and autonomy (p<.001), perceived need for cooperation by their discipline with other professions (p=.003) and perceptions of actual cooperation that occur between their discipline and other professions (p=.008).

RIPLS. Increases in the mean score for the HCM-IPL group were noted on the RIPLS from pre to post-learning. However, there were no statistically significant between and within group differences.

ATHCTS. The interaction of group with time was statistically significant for the subscales examining team value [F(1,35)=4.81, p=.035] and team efficiency [F(1,35)=1.15, p=.032]. After the learning experience, the HCM-IPL group scored significantly higher than the control group on the team value (p=.003) and team efficiency (p=.048) subscales. In addition, statistically significant increases in the mean scores for the HCM-IPL group from pre to post-learning on the team value (p=.025) and team efficiency (p=.017) subscales.

“I want to say that if this can catch on as a trend in every nursing school with PT, social work, everyone who works on the case of a patient, that this could really be a huge benefit to getting patients out of the hospital faster and taking charge of their own health hopefully, and that would be cool.”

DISCUSSION & CONCLUSIONS

The findings from the study demonstrate the positive impact of the learning experiences on student attitudes toward IPL and IPC. Statistically significant changes found on the IEPS and ATHCTS were supported by the qualitative data from the focus groups, which provided insight into why attitudes toward IPL and IPC changed as a result of the learning activities. The nature of the interaction occurring in the group created a supportive and positive learning environment characterized by open communication and mutual respect. Such behaviors represent key competencies identified by the Interprofessional Education Collaborative Panel as necessary for collaborative practice. A 6 hour-long IPL experience involving HCM led to positive changes in attitudes toward teamwork and collaboration.

Table 2. Participant Demographic Information for the Interprofessional Learning and Control Groups.

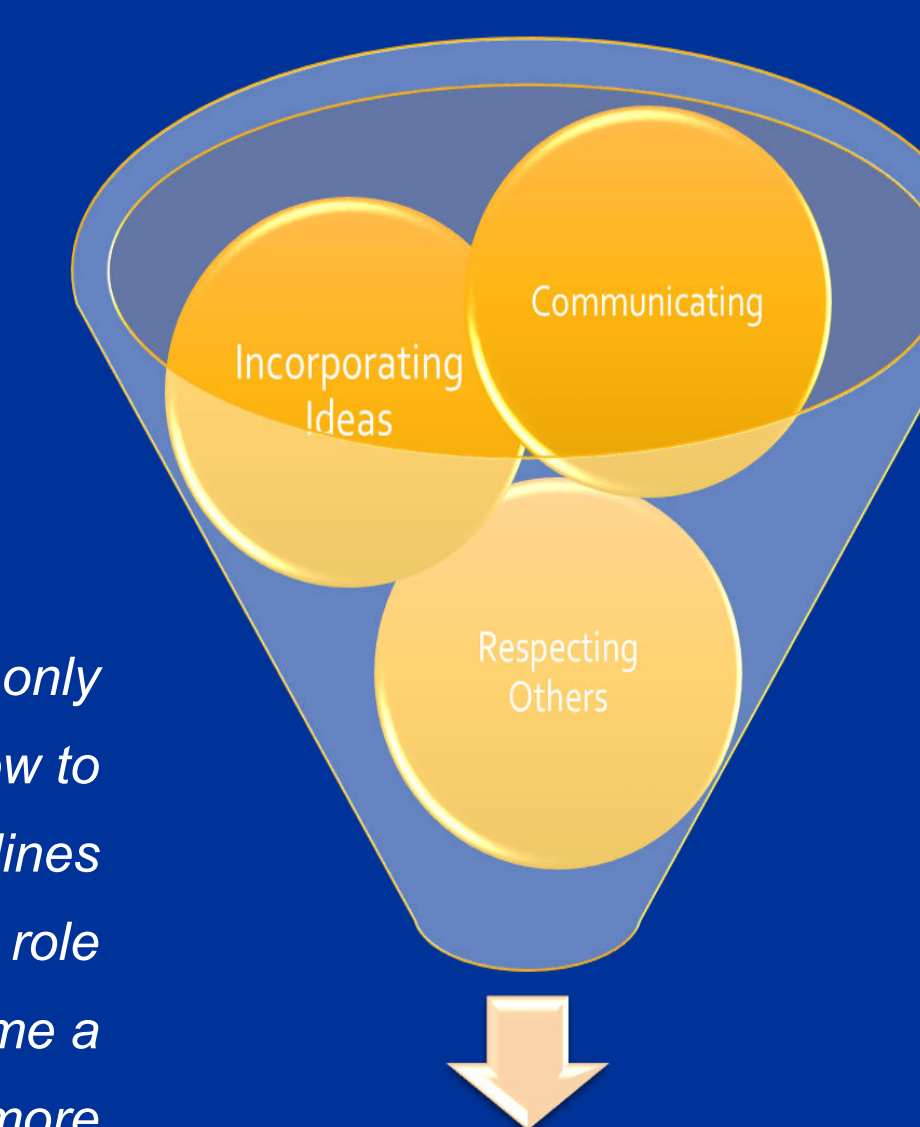
Participant Demographics		Groups									
		Health Care Mentor (n=19)					Control (n=19)				
		Psy	PT	SW	RN	Total	Psy	PT	SW	RN	Total
Gender	Female (n)	3	4	4	4	79%	3	3	4	4	74%
	Male (n)	1	1	1	1	21%	1	2	1	1	26%
Ethnic Identity	Asian (n)	1	-	-	-	5%	-	-	-	-	0%
	Black/AA (n)	-	1	2	-	15%	-	-	2	1	16%
	Hispanic (n)	-	-	1	-	5%	-	-	1	-	5%
Highest Degree Earned	Caucasian (n)	3	4	3	5	75%	4	5	2	4	79%
	No Degree (n)	-	-	-	4	20%	-	1	-	4	24%
	Associates (n)	-	-	-	1	5%	-	-	-	-	0%
Age	Bachelors (n)	2	3	5	-	55%	-	4	4	1	47%
	Masters (n)	2	2	-	-	20%	4	-	1	-	26%
	Mean (yrs)	27.9	27.6	36.8	25.7	29.9	29.1	23.6	43.1	28.8	31.3
IPC Experience	SD	3.6	4.4	13.8	2.6	8.9	1.3	1.1	12.3	15.1	11.9
	Yes (n)	4	4	1	5	63%	3	1	4	3	58%
IPC Experience	No (n)	0	1	3	0	37%	1	4	1	2	42%

Psy – clinical psychology; PT – physical therapy; SW – social work; RN – nursing

Figure 1. Summary of the Major Themes Emerging from the Qualitative Interviews with the Students Participating in the Interprofessional Learning Experience.

“I think it allows you to kind of have a more holistic approach to treating a patient because you’re considering what other disciplines might be looking for, what their goals might be, and you kind of end up with a more functional outlook.”

“I thought that the project was not only good for me in terms of learning how to work together with different disciplines but also to get to know my own role within [a team]. I know it changed me a lot in terms of feeling a lot more confident in my role and what I am supposed to be looking for and what will help the other disciplines the most.”



“Being confident. That you should be able to sit in a meeting and be confident and express what you feel is good on the behalf of the client.”

“I think it made me at least think in a different way, psychologically, as well, as how to treat someone, because I had more information about their physical well-being from the PT and the nurses than I would have had on my own. I wouldn’t have thought to ask some of the questions that they did of the participants.”

Qualitatively, the focus group data identified 3 key themes that may account for the positive impact of the IPL experience: (1) communicating effectively and incorporating ideas from other members of the team; (2) respecting other disciplines during the team meeting; and (3) valuing collaboration for putting it all together to identify the best plan of care for the HCMs.

Table 1. Overview of the Curriculum Summarizing the Key Learning Activities

Learning Activity	Time	Description
Introduction to IPL & IPC	30 Minutes	Discipline-specific introduction to the importance of IPC and purpose of IPL.
Issues in the Management of MS	60-90 Minutes	Discipline-specific discussion – management of MS and planning for the examination.
Interprofessional Examination	60-90 Minutes	Students are paired to conduct the examination as an IP team.
Interprofessional (IP) Team Meeting Planning	30 Minutes	Discipline-specific planning for the IP team meeting.
Interprofessional Team Meeting	Introduction	15 Minutes Identify the expectations for the day.
	Interprofessional Team Meeting	60 Minutes Develop an IP plan of care for the HCM based on the examination findings.
	Dinner	30 Minutes Informal meeting time between students, mentors and faculty.
	Planning for the Meeting with HCM	30 Minutes Mentor-specific IP teams plan what and how to share information with the HCM.
	Information Sharing with the HCM	30 Minutes Share the team’s recommendations for care or services with the HCM and receive feedback.
Group Debriefing	30 Minutes	HCMs, students and faculty share their impressions of the learning experience.

Table 3. Means and Standard Deviations for the Learning Intervention and Control Groups on the Interprofessional Education Perception Scale (IEPS), Readiness Toward Interprofessional Learning Scale (RIPLS) and the Attitude Toward Health Care Teams Scale (ATHCTS) Pre and Post-IPL.

Learning Outcomes		Groups			
		Health Care Mentors		Control	
		Pre	Post	Pre	Post
IEPS	Competency & Autonomy	74.4 ± 8.3	83.6 ± 6.7*	78.5 ± 8.9	81.6 ± 7.5
	Perceived Need for Cooperation	59.3 ± 5.8	64.7 ± 5.7*	63.2 ± 6.1†	63.7 ± 5.7
	Perception of Actual Cooperation	68.7 ± 8.2	76.8 ± 7.9*	75.4 ± 9.1†	74.8 ± 9.1
RIPLS	Understanding Others’ Values	48.4 ± 6.8	48.9 ± 7.1	51.4 ± 8.0	50.1 ± 8.9
	Team Work & Collaboration	40.9 ± 3.7	43.4 ± 2.6	37.6 ± 5.5	39.5 ± 5.1
	Professional Identity	31.3 ± 1.8	32.9 ± 2.2	25.3 ± 6.8	29.7 ± 4.1
ATHCTS	Roles & Responsibilities	10.6 ± 2.8	11.3 ± 2.6	12.0 ± 1.7	12.2 ± 1.6
	Team Value	44.7 ± 5.1	48.6 ± 4.5†*	42.9 ± 6.8	42.5 ± 6.6
	Team Efficiency	16.7 ± 3.7	19.1 ± 3.2†*	15.7 ± 3.7	16.8 ± 3.6
	Shared Leadership	15.3 ± 4.6	15.7 ± 5.0	14.8 ± 4.1	14.8 ± 2.9

* statistically significant within group difference p<.05; † statistically significant between group difference p<.05