

Interprofessional Education: Perceptions of Health Professional Students

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ABSTRACT

Background and Objectives: A variety of health professionals work together for patient health care and safety. Unfortunately, poor team work among health carriers can lead to delayed treatment or even loss of the patient's life. Inter-professional Education (IPE) is an important educational intervention that consists of two or more professions learning together at the same time to develop effective team working skills for collaborative practice and enhanced care quality. Perceptions of health professional students about IPE in Pakistan were evaluated in this study.

Methodology: A descriptive cross sectional study was carried out amongst first year students of medicine, pharmacy and physiotherapy in Women Medical College, Abbottabad, Pakistan during a period of 3 months from March till May 2018. By utilizing the Readiness for Inter-professional Learning Scale (RIPLS), a quantitative analysis was conducted.

Results: Most students thought of IPE as a chance to gain information about other professionals for good communication and efficient team working. Pharmacy, physiotherapy and majority of medical students showed high interest in IPE while a few medical students believed that being leaders of health-care teams in future they needed more knowledge and skills than others and considered IPE as a waste of time.

Conclusion: This study demonstrates full support for Inter-professional education indicating requirement for its early intervention in the curriculum of health professional students. Clarifying the boundaries and professional role of one another earlier in career will lead to the formation of effective health-care teams and collaborative practice in future.

Keywords: Inter-professional Education, Readiness for Inter-professional Learning Scale.

INTRODUCTION

Health care is mostly provided by a team of various health professionals. Regretfully, lack of communication and interaction amongst healthcare team workers can cause the treatment being postponed or even cause loss of patient life.¹ Factors such as weak communication, poor relationships, unclear duties, distrust and disrespect may contribute in poor team working.^{2,3} Certain studies show that poor communication, collaboration and inefficient leaders may have adverse effects in health settings.⁴ This evidence provides support for such interventions to be carried out that will enhance teamwork in health care professionals.⁵

IPE which provides the provision to train for effective team working abilities may be the answer to this issue to some extent. IPE is an educational practice that requires two or more professions to learn and interact together for better comprehension amongst

team members in healthcare institutions.⁶ With effective team working good health care is achieved without unnecessary costs or prolonged admissions in healthcare settings. Multi professional education between medical, nursing, pharmacy and physiotherapy can lead to increased team working skills.⁷

Since IPE creates the possibility to exchange knowledge and develop regard for others, its implementation at the start of curriculum may reduce negative stereotyping which may cause hurdles for successful teamwork. Earlier IPE implementation in career may also lead to increased teamwork skills for benefit in future.^{8,9} Students should be familiarized with IPE when they have a clear idea of their own professional roles within healthcare settings.¹⁰ The collective view of the literature cited above is that healthcare students need IPE earlier in career to train them for effective team work providing standard care.

AIMS AND OBJECTIVES

To evaluate the perceptions of health professional students about IPE by utilizing the Readiness for Inter-professional Learning Scale (RIPLS) in Women Medical College, Abbottabad, Pakistan.

PARTICIPANTS AND METHODS

A descriptive cross sectional study was carried out amongst healthcare students for a period of three months from March till May 2018. Inclusion criteria included female students of first year between age range of 18 to 20 years belonging to medical, pharmacy and physiotherapy from Women Medical College, Abbottabad. Exclusion criteria contained all other healthcare students of higher classes. All males had to be excluded as the study was conducted in a female institution. A pre-intervention survey questionnaire i.e. RIPLS (Readiness for Inter-professional learning scale) was administered to 200 students to collect data for quantitative analysis. Descriptive statistics analyzed the RIPLS results with the use of IBM SPSS statistical software, version 21. It utilizes 19 items divided into three subscales along with a 5-point Likert scale. RIPLS was developed by Parsell and Bligh in 1999¹¹ and a revised model of it was created by McFadyen et al¹² in 2005 having a high internal validity and reliability.^{13,14}

RESULTS

Out of 200 students, 180 questionnaires were retrieved while 20 students did not respond giving a response rate of 90%. The response rate was 50% (n = 90) for medicine, pharmacy was 28% (n = 50) and physiotherapy was 11.1% (n = 20). The number of students who had agreed and strongly agreed were added up, the percentage extracted and then combined for both groups (as presented in the tables below) while the same was done for those who disagreed and strongly disagreed. The number and total percentage of a few

students who remained uncertain for certain statements was also calculated. Results were gathered and analyzed.

In the first subscale of Teamwork and Collaboration, mostly students strongly agreed that IPE would help to create effective teams (79.2%) which would benefit patients (90%). They had the opinion that it would help to solve clinical cases (77.8%), increase communication skills (75.6%), learn team working skills (87.8%), and clarify one's own professional limitations (66.6%). Interacting with others to develop rapport (81.6%), thinking positively for others (81.2%) and developing trust and regard for others (95.6%) all were highly appreciated. The results showed that medical student's total score was significantly decreased than others while other health groups had same scores.

In the second subscale, students had a low negative professional identity and a high positive one. Many students disagreed to consider IPE as a waste of time (74.4%) also disagreed that no shared learning at undergraduate level should take place (55.5%) or that only people of their own career could provide advantage to them (50.6%). All agreed that IPE could lead to increased communication (77%) and with the help of small group teaching (71.1%) it could reduce patient problems (73.3%) and make good team leaders (78.9%). The results showed that pharmacy students gained high scores.

In the third group of Roles and Responsibilities, many students did not believe that most health carriers were to aid doctors (65%) and disagreed that students were unclear about their professional role (77.2%). Most students (40%) concluded the fact that they had to gain more knowledge and skills than others but some had a different opinion than this (28.3%). Details of RIPLS Questionnaire results are shown in the following tables:

Table 1: For Subscale 1: Teamwork and Collaboration.

Statements from RIPLS Questionnaire	Groups of Students	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1. Learning with other students will help me to become a more effective member of a health care team	Medicine	5	3	20	45	17
	Pharmacy	1	0	1	20	28
	Physiotherapy	1	1	6	20	12
	%	4%	2%	15%	47%	32%
	Total%	6%			79.2%	
2. Patients would ultimately benefit if health care students worked together to solve patient problems	Medicine	4	3	6	40	37
	Pharmacy	0	1	2	31	16
	Physiotherapy	0	1	1	20	18
	%	2.2%	2.8%	5%	50.6%	39.4%

	Total %	5%			90%	
3. Shared learning with other health care students will increase my ability to understand clinical problems	Medicine	1	6	18	43	22
	Pharmacy	0	3	0	35	12
	Physiotherapy	1	0	11	17	11
	%	1.1%	5%	16.1%	52.8%	25%
Total %	6.1%		77.8%			
4. Communication skills should be learned with other health care students	Medicine	1	4	20	36	29
	Pharmacy	0	2	4	28	16
	Physiotherapy	0	3	10	15	12
	%	0.6%	5%	18.9%	44%	31.6%
Total %	5.6%		75.6%			
5. Team-working skills are essential for all health care students to learn	Medicine	0	2	5	42	41
	Pharmacy	0	1	6	19	24
	Physiotherapy	0	2	6	18	14
	%	0%	2.8%	9.4%	43.9%	43.9%
Total %	2.8%		87.8%			
6. Shared learning will help me to understand my own professional limitations	Medicine	0	7	19	44	20
	Pharmacy	2	5	12	25	6
	Physiotherapy	1	2	12	20	5
	%	1.7%	7.8%	23.9%	49.4%	17.2%
Total %	9.5%		66.6%			
7. Learning between health care students before qualification would improve working relationships afterwards	Medicine	1	3	16	45	25
	Pharmacy	0	2	5	22	21
	Physiotherapy	0	0	6	18	16
	%	0.6%	2.8%	15%	47.2%	34.4%
Total %	3.4%		81.6%			
8. Shared learning will help me think positively about other health care professionals	Medicine	0	0	25	36	29
	Pharmacy	0	0	5	27	18
	Physiotherapy	0	0	4	28	8
	%	0	0	18.9%	50.6%	30.6%
Total %	0%		81.2%			
9. For small-group learning to work, students need to trust and respect each other	Medicine	0	0	2	38	50
	Pharmacy	0	0	2	21	27
	Physiotherapy	0	0	4	20	16
	%	0	0	4.4%	43.9%	51.7%
Total %	0%		95.6%			
Mean % for Subscale 1:		4.2%		14.06%	81.7%	

Table 2: For Subscale 2: Professional Identity.

Statements	Group	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
<i>(a) Negative Identity</i>						
10. I don't want to waste my time learning with other health care students	Medicine	30	29	26	2	3
	Pharmacy	30	13		0	0
	Physiotherapy	20	12	5	2	1
	%	44.4%	30%	21.1%	2.2%	2.2%
Total %	74.4%		4.4%			
11. It is not necessary for undergraduate health care students to learn together	Medicine	14	28	25	19	4
	Pharmacy	8	25	8	9	0
	Physiotherapy	4	21	11	2	2
	%	14.4%	41.1%	24.4%	16.7%	3.3%
Total %	55.5%		20%			
12. Clinical problem-solving can only be learnt effectively with my own department/school	Medicine	8	34	17	27	4
	Pharmacy	5	27	9	7	2
	Physiotherapy	3	14	10	9	4
	%	8.9%	41.7%	36%	23.9%	5.6%
Total %	50.6%		29.5%			
Mean % for Subscale 2a		60.1%		27.1%	17.19%	
<i>(b) Positive Identity</i>						
13. Shared learning with other health care professionals will help me to communicate better with patients and others	Medicine	2	4	19	44	21
	Pharmacy	0	3	6	27	14
	Physiotherapy	0	2	5	28	5
	%	1.1%	5%	16.7%	55%	22%
Total %	6.1%		77%			
14. I would welcome the opportunity to work on small group projects with other health care students	Medicine	0	5	20	50	15
	Pharmacy	0	0	13	28	9
	Physiotherapy	1	2	11	18	8
	%	0.6%	3.9%	24.4%	53.3%	17.8%
Total %	4.5%		71.1%			
15. Shared learning will help to clarify the nature of patient problems	Medicine	4	4	24	38	20
	Pharmacy	0	0	12	30	8
	Physiotherapy	0	0	4	29	7
	%	2.2	2.2	22.2%	53.9	19.4
Total %	4.4%		73.3%			

16. Shared learning before qualification will help me to become a better team-worker	Medicine	2	4	21	41	22
	Pharmacy	0	3	7	21	19
	Physiotherapy	0	1	0	29	10
	%	1.1%	4.4%	15.6%	50.6%	28.3%
Total%	5.5%		78.9%			
Mean % for Subscale 2b		8.87%		19.72%	75.05%	

Table 3: For Subscale 3: Roles and Responsibilities:

Statements	Group	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
17. The function of nurses and pharmacists is mainly to provide support for doctors	Medicine	9	26	27	17	11
	Pharmacy	28	18	4	0	0
	Physiotherapy	14	22	4	0	0
	%	28.3%	36.7%	19.4%	9.4%	6.1%
Total %	65%		15.5%			
18. I'm not sure what my professional role will be	Medicine	26	45	17	1	1
	Pharmacy	14	29	7	0	0
	Physiotherapy	7	18	12	1	2
	%	26.1%	51.1%	20%	1.1%	1.7%
Total %	77.2%		2.8%			
19. I have to acquire much more knowledge and skills than other health care students in the Faculty	Medicine	0	5	21	44	20
	Pharmacy	3	24	19	4	0
	Physiotherapy	4	15	17	3	1
	%	3.9%	24.4%	31.7%	28.3%	11.7%
Total %	28.3%		40%			
Mean % for Subscale 3		56.83%		23.7%	19.43%	

Table 4: Mean % of each subscales.

	Disagree	Undecided	Agree
Subscale 1	4.2%	14.06%	81.7%
Subscale 2a	60.1%	27.1%	17.9%
Subscale 2b	8.87%	19.72%	75.05%
Subscale 3	56.83%	23.7%	19.43%

DISCUSSION

This study discovered the perceptions of healthcare students of IPE with RIPLS questionnaire and found higher scores on positive questions and low on the negatively phrased ones showing increased tendency towards IPE. Pharmacy, physiotherapy and majority of

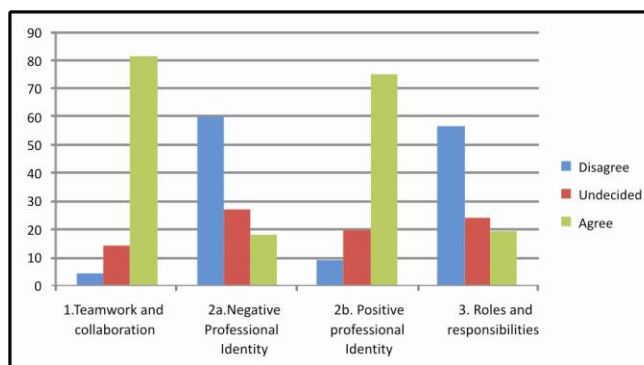


Fig. 1: Bar chart according to mean % of each subscale.

medical students showed high interest in IPE while a few medical students believed that being leaders of

healthcare teams in future they needed more knowledge and skills than others and considered IPE as a waste of time. In general, early integration of IPE into the curriculum was agreed by majority to be fruitful for good working relationship amongst health care students.

Our study has been consistent with other studies that have evaluated developing perceptions about IPE in first year health professional students. Horsburgh¹⁵ in his study administered RIPLS to students of first year to evaluate developing perceptions as early as possible in career. He found a keen interest for IPE in nursing and pharmacy students while medical students believing to be team leaders in future, felt to acquire more knowledge than others. Honan¹⁶ conducted a qualitative analysis on first year medical and nursing students and suggested that doctors and nurses should be educated together in certain things as they spent more time with patients than others, and for this purpose he found IPE to be the best solution. Similar to our study, the use of RIPLS questionnaire has been used in many other studies^{17,18,19} to evaluate the positive and negative view points of students on IPE. Cook²⁰ in 2014, found out that certain students are stereotypes and develop negative perceptions against other students influencing IPE and teamwork practice. In our study, a small number had negative perceptions against each other which correlates with Cook's findings. In a study²¹ with similar findings to ours, it was seen that communication, knowledge of professional role of others and negotiation for conflict resolution amongst health carriers was necessary for IPE success and collaborative practice.²⁰

The idea that IPE can raise the standards of teamwork and collaborative practice is now recognized internationally. Reviews on the positive effects of IPE have also been documented in BEME (Best Evidence Medical Education) guide by Reeves S.²² WHO²³ recommends teamwork regulations to be introduced early in curriculum for which IPE is the answer. CAIPE²⁴ (Centre for the advancement of IPE) a UK based organization with an international outreach established in 1987 has been working to promote and develop IPE. Innovative methods for the development of practice models for IPE in educational organizations are being used.^{25,26,27} The outcome of our research correlates with findings in previous literature which are mostly in favour of IPE and recommends the early integration of IPE into the curriculum of health care students.

It is **concluded** that this study strongly favours IPE for developing efficient teams in healthcare places. Through IPE the professional role of one another can be differentiated clearly. Stereotypes, can be reduced due to IPE being introduced in the initial period of career buildup. In general, research provides clear evidence to higher educational institutions to consider add-

ing mandatory IPE into the curriculum of health care students earlier in their careers for quality healthcare.

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Author's Contribution

SN: Conceptualization of Study Design. SN, SR: Literature Search. SN, MM: Data Collection, Data Analysis. SN, TI, NS: Data Interpretation. SN: Write-up. NS, AJ: Proof Reading.

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