



Research Article

Students' Perception and Readiness towards Inter-Professional Learning

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Abstract

Inter-professional learning is helpful for students to identify other professionals for team work and collaboration which results in improved patient care outcome and also improve Communication among health professionals and patients. The purpose of this study was to explore the relationship between readiness and perception of students towards inter-professional learning. A correlation, cross-sectional study was done with Two hundred and eighty five undergraduate Nursing and Paramedical students from Jan, 2018 to May, 2018. Convenient sampling was used to collect data. The Readiness for Inter-Professional Learning Scale (RIPLS) and Interdisciplinary Education Perception Scale (IEPS) were used to measure the readiness and perception of students regarding inter-professional learning. The data were analyzed using software Statistical Package for Social Science (SPSS) (Version 21). Spearman rho correlation test was used to explore the relationship of variables. The results showed statically significant positive correlation between the readiness and Perception of students regarding inter-professional learning ($p=.000$). This study indicated that there is strong positive correlation between readiness and perception of students towards inter-professional learning but students have least response towards team work and collaboration. Study suggests that inter-professional education should introduce in the curriculum of nursing and paramedical students to promote team work and share learning.

Keywords: Readiness; Perception; Nursing; Paramedical; Students; Inter-professional learning

Introduction

Nurses are the most important person in health care settings who spend more time with the patient and give nursing care to the patient in cooperation with doctors and other health care personals (Keshtkaran *et al.*, 2014). Inter-professional learning is the most important thing to achieve maximum health care outcome for the patient. So we should emphasize in nursing, medical and paramedical disciplines on inter-

professional education to promote team work and collaboration among health care professionals (Keshtkaran, Sharif, & Rambod, 2014). In the present era as world is advancing diseases are also going to advance day by day. It is not possible for a single person to provide complete health care to patient. Teamwork and collaboration is very important which provide us the great opportunity for Inter-professional learning. Inter-professional learning allow

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health professionals to observe, share and learn new skills and practices from one another experiences and knowledge (Mitchell *et al.*, 2012). There is a high emphasis on inter-professional learning in nursing profession. Nursing students are prepared in their training to some extent regarding teamwork and collaboration (Wilhelmsson, Svensson, Timpka, & Faresjö, 2013). WHO emphasized on inter-professional collaboration in practices. To promote inter-professional learning it should introduce among health care professionals in their professional student life (Lindqvist, 2015). The American Speech-Language-Hearing Association also greatly supports inter-professional education learning, according to this association clinical supervisor also responsible for inter-professional practices although these settings are teaching or non-teaching (Goldberg, 2015). While students Perceptions and readiness towards inter-professional learning play an important role. Inter-professional learning can promote by introduction of inter-professional education in the study curriculum of nursing, medical and paramedical students. It will promote share-learning practice and students came to know the role of each professional person, and also become an effective member of healthcare team. Small group learning will help to encourage students' positive attitude and readiness towards inter-professional learning (Maharajan *et al.*, 2017). Students have to prepare before their professional life through inter-professional education and encouraging strategies by teachers regarding teamwork and collaboration, which will be helpful to become a more effective member of Health care team and achieve maximum health care outcome in patients living with chronic diseases. Students learn by sharing with other health care disciplines and better understand clinical problems (Wellmon, Baumberger-Henry, Colby, Knauss, & Fletcher, 2017). Students' positive perception and readiness regarding inter-professional learning help them to understand their own limitation. Collaboration and teamwork help students to have positive perception towards other professionals and improve communication skills. Through inter-professional learning from small groups students trust and respect each other (Mèche *et al.*, 2016). Inter-professional learning is helpful for students to identify other professionals. Teamwork and collaboration improve Communication among health professionals and patients. Students learn professional skills from one another and better understand patients' problem. And interdisciplinary education help students in understanding their professional role and allow them to be able to work closely with individuals in other profession (Donato *et al.*, 2016). Inter-professional learning is also important in Pakistan to make health care departments strong. Research proved that Pakistan is facing crises in health care services provision. Teamwork and collaboration is important among health professionals for minimizing the health deficient services. Interdisciplinary education help professionals to play

positive role in their goals and objectives and cooperate with other professionals (Rehman, Ali, & Ahmad, 2017). Inter-professional education is very helpful for students' readiness and positive perception regarding inter-professional learning. It is helpful in making perception of students that they must depend upon the work of people in other profession and trust on each other's professional judgment. Inter-professional education effect each year level of students learning the student's perception, students of each profession must have good relation with people in other profession (Williams & Webb, 2015).

Review of Literature

Team work and Collaboration are most important practices that are required to improve quality of care and patient outcomes. All health profession students should practice with inter-professional collaboration. Inter-profession learning help a lot to improve patient care outcome and avoid up to 70% medical errors (Carr, 2015). There for In the present era Inter-professional learning is necessary for the students to enhance knowledge regarding teamwork, collaboration. Inter-professional learning strength professional relations among health profession students and provided them opportunity to learn professional skills which are required in patient care. (Paul *et al.*, 2014). Positive perceptions of students regarding other professions also work as motivation towards teamwork and collaboration. Inter-professional learning provides support for nursing, and other health profession students to improve their communication skills with each other and share knowledge. Inter-professional education is helping step for students to have positive perception toward inter-professional learning (Del Bigio *et al.*, 2016).

Inter-professional learning and professional skills can be best promoted by Inter-professional education. Inter-professional learning help in minimizing the students mistrust, miscommunication and medical errors (Aziz *et al.*, 2011). Woermann *et al.* (2016) study results showed that to promote team work and minimize conflicts among health professional students positive perception of students towards inter-professional education is very important. (Woermann, Weltsch, Kunz, Stricker, & Guttormsen, 2016). Meche *et al.* (2016) study showed that medical and nursing students showed positive attitude and perception towards education program of inter-professional learning. Inter-professional learning work as initiating step for teamwork and collaboration (Mèche *et al.*, 2016). Silva & Ponnampuruma, (2017) study showed that the introduction of inter-professional education in nursing and other health profession students course is highly effective as result of study showed that first year students perception is greater than final year students (Silva & Ponnampuruma, 2017). Study conduct on nursing and allied health sciences students' results showed great difference among students' perceptions towards inter-professional learning, and

support to start inter-professional education for development of teamwork and inter-professional collaboration. By introducing inter-professional education students understand the roles of individuals from other professions (Rajiah *et al.*, 2016). Study find out that there are conflicts among health professional students. They feel that people of their profession are only well trained or superior from other profession students. These conflicts can be minimize by inter- professional learning and inter-disciplinary education (Supper *et al.*, 2015). Inter-disciplinary education helps the students to improve relationship and minimize wrong perceptions of professionals (Hayashi *et al.*, 2012). Inter-disciplinary education change studentes perceptions and motivate them that they need to cooperate with other professionals and they will trust on each other's professional judgment (Joyal, Katz, Harder, & Dean, 2015). In nursing profession there is high emphasis on interprofessional learning. positive perception and readiness of nursing students regarding inter-professional learning motivate them to share information and resources with other professionals. Inter-professional learning is the best way to realise students team work and collaboration is also as important as formal education (Wilhelmsson *et al.*, 2013). The inter-disciplinary education perception responses of nursing students were 68.88% lowest response of the study therefore; this nursing curriculum was suggested to be revised(Keshtkaran *et al.*, 2014). Inter-disciplinary education allow nursing students to think highly of other related profession and also allow other professionals to seeks the advice of the people in nursing profession (Keshtkaran *et al.*, 2014).

Methodology

Study Setting

The setting for this study was School of Nursing, Jinnah Hospital Lahore and Institute of Allied Health Sciences, Jinnah hospital Lahore.

Study Design

A quantitative Descriptive cross-sectional co-relational study design was used.

Study Population

Study Population for this research was 236 General Nursing (1stYrs to 3rdYrs) and Midwifery students (4thYrs) from School of Nursing, Jinnah Hospital Lahore and 210 Paramedical students (Dispenser, Operation Theater Technicians, Lab-Technicians, Radiology Technicians) of Institute of Allied Health Sciences, Jinnah Hospital Lahore.

Sampling Method

Convenient sampling technique was used.

Data Collection Method and Procedure

An adopted questionnaire distributed among participants of study for data collection. Questionnaire adopted from a study conducted by (Keshtkaran *et al.*, 2014).

The questionnaire consists on questions on students readiness and perception towards inter-professional learning.

Data Analysis

Data was analyzed by using SPSS version 21. Descriptive statistic (Mean, M; and Standard Deviation, SD) was used to summarize the demographic characteristics and the RIPLS and IEPS data. Moreover, Spearman's rho Correlation test was used to assess the relationship between readiness and perception of students towards inter-professional learning among the two groups of nursing and Paramedical students (dispenser, operation theatre technicians, Lab-technicians, Radiology technicians) towards the total scores of RIPLS and IEPS.

Ethical Consideration

Permission was taken from Ethical Review Committee of Lahore School of Nursing, The University of Lahore. Permission was taken from Principal of School of Nursing, Jinnah Hospital Lahore and Principal of Institute of Allied Health Sciences, Jinnah Hospital Lahore. A consent form was attached with each questionnaire. The information of respondent will be kept confidential. They were having full permission to withdraw at any time if they want.

Study Duration

Study was conducted from Jan, 2018 to May, 2018.

Results

The present study consists of five parts. Part one is showing the demographic data of students. Part two is showing the Test of data normality. Part three is showing the correlation of students' readiness and perception. Part four is showing students' responses towards their readiness for inter-professional learning. Part five is showing students perception for inter-disciplinary education.

Profile of Respondents

Table 1 is showing the demographic data of the students in which, 29.1% were male and 70.9% were female. According to age of the students, 10.88% students were from 16-18 year of age group, 52.98% students were from 19-21 year of age group, 31.23% students were from 22-24 year of age group, 4.91% students were from above 24 year of age group. 51.93% students were from nursing discipline and 48.07% were from paramedical discipline.

Table 2 is showing that significance value of Readiness and Perception in Shapiro-Wilk is .000 which shows that the data of variables is not normally distributed. Because the data is not normally distributed that's why Pearson correlation test is applicable in this study. We will check the correlation of students' readiness and perception by using Spearman'rho correlation test.

Table 3 is showing the correlation of students' readiness and perceptions towards inter-professional learning by

spearman's rho test. Students' readiness has strong positive correlation with their perception towards inter-professional learning, p value (.000). Students' perception also has strong positive correlation with their readiness, p value (.000).

Table 4 is showing response of students for their readiness towards inter-professional learning. Consist on five points likerts scale ranging from strongly agree to strongly disagree

Table 1: Demographic Data of the Participants

Characteristics	f	%
Gender		
Male	83	(29.1)
Female	202	(70.9)
Total	285	(100)
Age		
16-18	31	(10.9)
19-21	151	(53.0)
22-24	89	(31.2)
Above 24	14	(4.9)
Total	285	(100)
Study Discipline		
Nursing	148	(51.9)
Paramedics	137	(48.1)
Total	285	(100)

Table 2: Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Students Readiness	.209	285	.000	.905	285	.000
Students Perception	.099	285	.000	.940	285	.000

a. Lilliefors Significance Correction

Table 3 : Correlations

		Students Readiness	Students Perception
Spearman's rho	Students Readiness	Correlation Coefficient 1.000	.903**
		Sig. (2-tailed) .	.000
		N 20	20
Students Perception	Students Perception	Correlation Coefficient .903**	1.000
		Sig. (2-tailed) .000	.
		N 20	20

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4: Students Readiness towards Inter-professional Learning

Sub-Scale	Variable	S.A (%)	A (%)	N.S (%)	D (%)	S.D (%)
Teamwork & collaboration	Learning with other students will help me become a more effective member of Health care team	160 (56.1)	85 (29.8)	28 (9.8)	4 (1.4)	8 (1.4)
	Patient would ultimately benefit if health care students work together to solve patient problem	101 (35.4)	148 (51.9)	22 (7.7)	7 (2.5)	7 (2.5)
	Share learning with other health care students will help me to understand clinical problem	135 (47.4)	118 (41.4)	22 (7.7)	5 (1.8)	5 (1.8)
	Learning with health care students before qualification would improve relationship after qualification	116 (40.7)	113 (39.6)	39 (13.7)	12 (4.2)	5 (1.8)
	Communication skills should be learned with other health care students	92 (32.3)	154 (54.0)	29 (10.2)	6 (2.1)	4 (1.4)
	Shared learning will help me to think positively about other professionals	101 (35.4)	138 (48.4)	29 (10.2)	10 (3.5)	7 (2.5)
	From small learning group to work, students need to trust and respect each other	120 (42.1)	124 (43.5)	24 (8.4)	10 (3.5)	7 (2.5)
	Team working skills are essential for all health care students to learn	111 (38.9)	118 (41.4)	35 (12.3)	16 (5.6)	5 (1.8)
	Shared learning will help me to understand my own limitation	82 (28.8)	128 (44.9)	47 (16.5)	22 (7.7)	6 (2.1)
Professional identity	I don't want to waste my time learning with other health care students	55 (19.3)	59 (20.7)	57 (20.0)	68 (23.9)	46 (16.1)
	It is not necessary for undergraduate health care students to learn together	41 (14.4)	77 (27.0)	57 (20.0)	67 (23.5)	43 (15.1)
	Clinical problem solving skills can only be learned with students from my own department	64 (22.5)	89 (31.2)	47 (16.5)	61 (21.4)	24 (8.4)
	Shared learning with other health care students will help me to communicate better with patient and other health care professionals	116 (40.7)	123 (43.2)	30 (10.5)	12 (4.2)	4 (1.4)
	I would welcome the opportunity to work on small group-project with other health care students	97 (34.0)	138 (48.4)	32 (11.2)	13 (4.6)	5 (1.8)
	Shared learning will help to clarify the nature of patient problems	106 (37.2)	119 (41.8)	48 (16.8)	8 (2.8)	4 (1.4)
	Shared learning before qualification will help me to become a better team worker	110 (38.6)	104(36.5)	50 (17.5)	17 (6.0)	4 (1.4)

Table 4: Students Readiness towards Inter-professional Learning (Contd.)

Sub-Scale	Variable	S.A (%)	A (%)	N.S (%)	D (%)	S.D (%)
Roles & Responsibility	The function of nurses and therapists is mainly to provide support for doctors	83 (29.1)	119 (41.8)	36 (12.6)	24 (8.4)	23 (8.1)
	I am not sure what my professional role will be	51 (17.9)	97 (34.0)	61 (21.4)	47 (16.5)	29 (10.2)
	I have to acquire much more knowledge and skills than other health care students	91 (31.9)	122 (42.8)	39 (13.7)	24 (8.4)	9 (3.2)

Table 5 : Students Perception towards Inter-Disciplinary Education

Factors	Variable	ST.D (%)	D (%)	SL.D (%)	SL.A (%)	A (%)	ST.A (%)
Proficiency and Independence	Individuals in my profession are well-trained	38 (13.3)	29 (10.2)	22 (7.7)	62 (21.8)	95 (33.3)	39 (13.7)
	Individuals in my profession are able to work closely with individuals in other profession	21 (7.4)	27 (9.5)	47 (16.5)	71 (24.9)	79 (27.7)	40 (14.0)
	Individuals in my profession demonstrate great deal of autonomy	14 (4.9)	34 (11.9)	41 (14.4)	72 (25.3)	81 (28.4)	43 (15.1)
	Individual in other professions respect work done by my profession	12 (4.2)	35 (12.3)	35 (12.3)	92 (32.3)	73 (25.6)	38 (13.3)
	Individual in my profession are very positive to their goals and objectives	23 (8.1)	15 (5.3)	32 (11.2)	76 (26.7)	79 (27.7)	60 (21.1)
Perceived need for teamwork	Individual in my profession need to cooperate with other professionals	40 (14.0)	24 (8.4)	14 (4.9)	60 (21.1)	90 (31.6)	57 (20.0)
	Individual in my profession are very positive to their contribution and accomplishment	15 (5.3)	55 (19.3)	34 (11.9)	62 (21.8)	71 (24.9)	48 (16.8)
	Individual in my profession must depend upon the work of people in other profession	33 (11.6)	48 (16.8)	64 (22.5)	44 (15.4)	57 (20.0)	39 (13.7)
	Individual in other profession think highly of my profession	25 (8.8)	31 (10.9)	53 (18.6)	72 (25.3)	69 (24.2)	35 (12.3)
Perception of actual collaboration	Individual in my profession trust on each other's professional judgment	30 (10.5)	27 (9.5)	44 (15.4)	72 (25.3)	87 (30.5)	25 (8.8)
	Individual in my profession have higher status than individual in other profession	28 (9.8)	51 (17.9)	48 (16.8)	61 (21.4)	66 (23.2)	31 (10.9)
	Individual in my profession make every effort to understand the capabilities and contribution of other professions	21 (7.4)	38 (13.3)	57 (20.0)	50 (17.5)	78 (27.4)	41 (14.4)
	Individual in my profession are extremely competent	19 (6.7)	24 (8.4)	58 (20.4)	55 (19.3)	69 (24.2)	60 (21.1)

Table 5 : Students Perception towards Inter-Disciplinary Education (Contd.)

Factors	Variable	ST.D (%)	D (%)	SL.D (%)	SL.A (%)	A (%)	ST.A (%)
Considering others' value	Individual in my profession are willing to share information and resources with other professionals	20 (7.0)	36 (12.6)	38 (13.3)	54 (18.9)	76 (26.7)	61 (21.4)
	Individual in my profession have good relation with people in other profession	25 (8.8)	26 (9.1)	39 (13.7)	58 (20.4)	86 (30.2)	51 (17.9)
	Individual in my profession think highly of other related profession	17 (6.0)	37 (13.0)	50 (17.5)	58 (20.4)	85 (29.8)	38 (13.3)
	Individual in my profession work well with each other	26 (9.1)	21 (7.4)	36 (12.6)	60 (21.1)	91 (31.9)	51 (17.9)
	Individual in other profession often seeks the advice of the people in my profession	25 (8.8)	15 (5.3)	35 (12.3)	68 (23.9)	85 (29.8)	57 (20.0)

Discussion

The aim of this research was to explore the Students' perception and readiness towards inter-professional learning. Inter-professional learning is helpful for students to identify other professionals for teamwork and collaboration and also improve Communication among health professionals and patients. Students learn professional skills from one another and better understand patients' problem. And interdisciplinary education help students in understanding their professional role and allow them to be able to work closely with individuals in other profession (Donato *et al.*, 2016). The participants of this study were both nursing and Paramedical students in which 29.1% were male and 70.9% were female. 51.93% participants were from nursing discipline and 48.07% were from paramedical discipline. Spearman's rho correlation test was use to check the correlation of students readiness and perception, students shows statistically significant positive correlation in their readiness and perceptions towards inter –professional learning, (p=.000). The total score of readiness of health care students regarding inter-professional learning (RIPLS) was correlated with the total score of inter-disciplinary education perception of students (IEPS). The relationship between RIPLS and IEPS indicated that preparing for interdisciplinary learning may promote appropriate professional attitudes in the students, emphasize conventional perceptions of other professions. As compare to another study Inter-professional education is extremely important in increasing a readiness in students to work with other healthcare students (Chua *et al.*, 2015). Present study findings showed strong positive correlation between readiness and perception of students for inter-professional learning. Consistent with our findings another

study also showed that nursing and medical students had strong positive correlation between readiness and perception of students for share learning (Keshtkaran *et al.*, 2014). The mean scores of teamwork and collaboration was lower in our study among nursing and paramedical students. Another study also has the same findings nursing and medical students showed low favorable attitude towards team work and collaboration (Woermann *et al.*, 2016). The findings of the current study showed that total score of (RIPLS) was related to the total score of (IEPS) so having the knowledge of professional roles, profession skills, professional empathy, confidence, and holistic awareness, makes them familiar with the roles of other health professionals. As compare to findings of another study inter-professional experiences in teamwork, cooperation and knowledge of professional roles with others facilitate the improvement of competencies as the students mature in their professional roles (Roberts, Davis, Radley-Crabb, & Broughton, 2018). In the present study findings nursing and paramedical students showed least attitude towards teamwork and collaboration. They feel more comfortable to work with their own professionals. Another study also showed the same results in which students showed least attitude regarding teamwork and collaboration. While students do not have significant knowledge regarding team work, collaboration and professional identity (Carr, 2015). Current study findings showed that Inter-professional learning among nursing and paramedical students allows them to learn more skills and become a more effective member of health care team. Inter-professional learning they become aware of roles and responsibilities of others. Another study results also support these findings paramedical students responded that inter-professional

learning with other disciplines be an efficient way of enabling students to attain awareness and skills. They have also gained a better perception of how efficient team work and the role of each professional (Ghatora *et al.*, 2017).

In the present study students showed highest response towards roles and responsibilities subscale as compare to team work and collaboration, Which means that students had highest readiness for their roles and responsibilities as compare to team work and share learning with other healthcare students. As students response in another study that Inter-professional education; trust among team members; help students to improve collaboration and improve patient care as a result the understanding self-awareness and job satisfactions will increase (Bookey-Bassett *et al.*, 2017). Teamwork and collaboration can be promoted among nursing and paramedical students with the special study program's that may have an impact upon the roles and responsibility subscale of readiness among nursing and paramedical students.

Conclusion

Present study findings showed strong positive correlation between readiness and perception of students for inter-professional learning. Positive attitude of students for inter-professional learning allow health professionals to observe, share and learn new skills and practices from one another experiences and knowledge. The most important finding of this study was that nursing and paramedical students had the least readiness for Perceived need of teamwork. Inter-professional education is extremely important and vital in developing a readiness to work with other members of the healthcare profession, a very important quality to possess especially in light of today's scientific advancements that herald interdependent healthcare cooperation.

Limitations

The survey received responses from the majority of the students in the study population, with very few non-respondents. Non-response is a common problem in survey based studies the percentage of non-responders was very small, we did not survey this group; non-response bias is highly unlikely to influence the results of the present study. One of the limitations of this study was that the subjects were selected from students of Jinnah Hospital Lahore therefore; the results cannot be generalized to the students of other hospitals and contexts. The results from this study are reliable and strong, enabling the planning of educational strategies for inter-professional collaborative practices.

Recommendation

Inter-professional learning should be incorporated in the curriculum of all healthcare professional programs, which may foster students to become competent healthcare providers and understand the importance of team work and collaboration.

The study finds out that with the introduction of inter-professional education in students' curriculum we can promote team work and collaboration among students with other professionals.

Study findings may be useful for the clinical educators, clinical staff, and the entire faculty members in identifying the students' readiness and perception towards inter-professional learning, facilitating teamwork learning in the clinical setting, and developing effective interventions to increase the inter-professional learning.

Authorities are recommended to provide a context in which collaborative team work and inter-professional learning are performed and inter-disciplinary education perception of students will improve.

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