

Attitude of Postgraduate Medical and Nursing Students towards Inter-professional Learning

NAZI NOOR¹, SAMINA KOUSAR², ROZINA MALIK¹, RIZWANA YASMIN³, SHAZIA EMENNIAL⁴, AFSHAN MEHWISH NAZ⁵

¹Department of Nursing, Jinnah Hospital, Lahore-Pakistan

²Department of Nursing, UHS, Lahore-Pakistan

³Department of Nursing, PIMS Hospital, Islamabad –Pakistan

⁴Department of Nursing, Mayo Hospital, Lahore-Pakistan

⁵Department of Nursing, Holy Family Hospital, Rawalpindi- Pakistan

Correspondence to Miss. Nazi Noor, Email: nazianoor383@gmail.com Tel:+92-332-5439173

ABSTRACT

Background: Globalisation, newly discovered diseases, and technological improvements have been noted to have significantly altered the healthcare system in recent years, which is continuously affecting healthcare outcomes. These adjustments necessitate standard care from medical specialists, who must be highly motivated to collaborate as a team.

Aim: To assess and compare the attitudes of postgraduate medical and nursing students towards inter-professional learning.

Study design: Comparative cross-sectional study.

Methodology: Purposive sampling approach and a comparative cross-sectional study design were used to study postgraduate medical and nursing students from the University of Health Sciences and the University of Lahore. One hundred twenty (120) of the three hundred and twelve (312) postgraduate medical and nursing students who were contacted for data collection completed the survey. The 19 items of the RIPL, or Readiness to Inter-professional Learning Scale, were used to collect the data. In order to analyze the data, SPSS 23 was used.

Results: Ages of study participants ranged from 21 to 52, with a mean of 32.4 +/- 6.4. 62 (51.7%) and 58(48.3%) of the 120 people were from the University of Health Sciences, Lahore, respectively. The mean readiness score on the Inter-professional Learning Scale, with a range of 42 to 86, was 72.4 6.97 overall. In the categories of duty and responsibility and teamwork and collaboration, there was no appreciable difference between postgraduate medical and nursing students' mean attitudes scores.

Practical Implication: IPL as a pedagogical tool because it gives the concepts of collaborative practice, as represented by the IPL idea, a framework. Students must always be prepared to participate in inter-professional learning if IPL is to be successfully promoted, as doing so will expand their knowledge, skills, and understanding of responsibilities of healthcare professionals.

Conclusion: It was concluded that early adoption of inter-professional learning programmes at the beginning of professional training and the provision of a suitable learning environment for healthcare learners will promote collaboration and cooperation in clinical settings, which may also improve patient and family satisfaction.

Keywords: Inter-professional Learning, Post-graduate Nurses, Knowledge and Attitude.

INTRODUCTION

The healthcare system has seen enormous changes all around the world as a result of globalization, new diseases, and rising technologies. Additionally, a number of other issues like the growing older population with health issues, a labour scarcity, and public demand for standard treatment necessitate highly motivated health care workers to function as a team. Inter-professional learning (IPL) is the best example of a multidisciplinary strategy that raises awareness of the responsibilities and job descriptions of other professions and provides access to understanding the teamwork spirit for improved patient care¹.

Interprofessional learning (IPL) has demonstrated through reducing the duration of stay and burden on hospitals that it is a significant contribution to better patient outcomes through better teamwork. Health organizations are responsible for bringing students from various health care institutions and disciplines to the universities that serve as the IPL base trainer.² Inter-professional learning is essentially described as "learning which promotes and enhances collaborative practice among different healthcare professionals"³.

The UK Centre for the Advancement of Interprofessional Education (CAIPE) also defined it as a situation in which many professionals learn about one another's fields in order to increase collaboration and raise the standard of care⁴.

The WHO recently provided a more thorough explanation of IPL as a learning that occurs among students of two or more distinct vocations, who learn about each other's job in order to foster better collaboration and enhance health outcomes⁵.

In the 1980s, the WHO papers "Continuing Education for Physicians" and "Learning Together to Work Together" helped

further IPL⁶. IPL places a strong emphasis on collaboration and teamwork as well as a sense of professional identity, position, and responsibility⁷.

While roles, duties, and professional identities have been further clarified through communication and cooperation, the core components of teamwork, still serves as the cornerstone of inter-professional learning⁸.

Students who participate in inter-professional learning (IPL) become more aware with the obligations and important roles of team members from various professions. Early interactions with IPL from many disciplines may aid in their realisation of the value of interpersonal communication skills in the healthcare industry⁹.

A significant barrier to the adoption of inter-professional learning is a lack of physician and organisational engagement. The perspective of nurses as front-line stakeholders in our healthcare system and the efficacy of existing training techniques have gotten little attention¹⁰. Lack of effective communication among the medical team usually leads to mistakes and negatively affects patient care. In contrast, successful collaboration enhances the standard of care, reduces the likelihood of errors, boosts safety, and supports the best possible patient outcome¹¹.

IPL has unfortunately encountered many difficulties because of the medical disciplines' deep-seated silos in human society. These silos have harmed inter-disciplinary collaboration, particularly between nurses and doctors. IPL as a pedagogical tool because it gives the concepts of collaborative practise, as represented by the IPL idea, a framework. Students must always be prepared to participate in inter-professional learning if IPL is to be successfully promoted, as doing so will expand their knowledge, skills, and understanding of the roles and responsibilities of healthcare professionals.

Thus aim of study was to assess and compare the attitudes of postgraduate medical and nursing students towards inter-professional learning.

Received on 26-11-2022

Accepted on 14-04-2023

METHODOLOGY

In partnership with the University of Lahore in Pakistan, a comparative cross-sectional study was carried out at UHS. The research was finished in a year. Students in postgraduate nursing and medical programmes were taken into consideration for this study's population. Sample size was 120 participants. Participants were enrolled through simple random sampling technique. This study involved postgraduate medical and nursing students (MS, M Phil parts I & II). Online/blended learning students were not included. Students' attitudes towards shared learning were assessed using a standardised 19-item structured questionnaire called "The Readiness to Inter-professional Learning Scale (RIPLS)" on a 5-point Likert scale. The Readiness to Inter-professional Learning Scale on 5-Point Likert Scale was used to collect demographic data and information about "Postgraduate Medical and Nursing students' attitudes towards Inter-professional learning." Data was collected through questionnaire. Written consent was taken.

Statistical Analysis: In order to analyse the data, SPSS 23 was used. For the inter-professional learning age and attitude score, the mean and standard deviation were determined. For the gender, institute, and discipline, frequency and percentage were provided. The mean attitude score of inter-professional learning between postgraduate medical and nursing students was compared using an independent sample t test. Significant data was defined as p-value 0.05.

RESULTS

Age, gender, educational institution, and participant discipline were used as demographic indicators. A total of 120 male and female medical students from the University of Health Sciences, Lahore and the University of Lahore participated in this study. Participants in the study ranged in age from 21 to 52, with a mean age of 32.4±6.4. The graph below displays the distribution of study participants. There were 92(76.7%) female participants and 28(23.3%) male ones. Out of 120 individuals, 62(51.7%) and 58(48.3%) were from the University of Health Sciences, Lahore, respectively. 48(40%) M.Ph students in basic sciences and 72(60%) MS nursing students were among the 120 participants as shown in table-3.

On the Inter-professional Learning Scale, the domain of preparation for teamwork and collaboration had a mean score of 37.1 4.45, with a range of 14 to 45. On the Inter-professional Learning Scale, the professional identity domain of preparation had a mean score of 25.4 3.15, with a range of 18 to 33. With a range of 3 to 15, the mean score for the Role and Responsibility domain

of preparation for the Inter-professional Learning Scale was 10.0 1.97. With a range of 42 to 86, the mean readiness score on the Inter-professional Learning Scale was 72.4 6.97 overall. The fact that the score is so close to the maximum score suggests that students' attitudes towards the shared learning were favorable.

Table 1: Gender distribution of participants

Gender	Frequency	Percent
Male	28	23.3%
Female	92	76.7%

Table 2: Distribution of participant's according to institution

Institute	Frequency	Percent
University of Health Sciences, Lahore	58	48.3%
University of Lahore	62	51.7%

Table 3: Distribution of participants according to discipline

Discipline	Frequency	Percent
M.Phil. Basic Sciences	48	40%
MS Nursing	72	60%

Table 4: Descriptive Statistics of Readiness to IPL Scale

Variables	Mean ± SD	Min.	Max.
Teamwork and Collaboration (Max score = 45)	37.1 ± 4.45	14.0	45.0
Professional identity (Sense of Negative and positive Professional Identity) (Max score = 35)	25.4 ± 3.15	18.0	33.0
Role and Responsibility (Max score = 15)	10.0 ± 1.97	3.0	15.0
Attitudes to Inter-Professional Learning (IPL) (Max score = 95)	72.4 ± 6.97	42.0	86.0

Comparison of the Attitudes of Postgraduate Medical and Nursing Students towards Inter-Professional Learning:

The Shapiro Wilk test was used to determine whether the data were normal. The data was found to be regularly distributed by the results. The Inter-professional Learning Scale's mean attitudes score for the categories of teamwork and collaboration, professional identity, and duty and responsibility was therefore compared across postgraduate medical and nursing students using an independent sample t-test. Nursing students considerably outperformed M.Phil students in terms of the mean attitudes score for the professional identity domain ($p = 0.004$). However, there was no discernible difference in postgraduate medical and nursing students' mean attitudes scores for the areas of teamwork and collaboration and duty and responsibility ($p=0.099$ & 0.866 , respectively).

Nursing students considerably outperformed postgraduate medical students in terms of their mean attitudes towards interprofessional learning ($p = 0.021$).

Table 5: Comparison of Mean Attitudes Score of Postgraduate Medical and Nursing Students towards Inter-Professional Learning

Variables	Students	Mean ± SD	Minimum	Maximum	p-value
Teamwork and Collaboration	Basic Sciences	36.2 ± 5.9	14.0	45.0	0.099
	Nursing	37.6 ± 3.1	30.0	44.0	
Professional identity (Sense of Negative and positive Professional Identity)	Basic Sciences	24.4 ± 3.2	18.0	31.0	0.004*
	Nursing	26.0 ± 3.0	21.0	33.0	
Role and responsibility	Basic Sciences	10.0 ± 2.6	3.0	15.0	0.866
	Nursing	10.0 ± 1.4	7.0	14.0	
Attitudes to Inter-Professional Learning (IPL)	Basic Sciences	70.6 ± 8.5	42.0	86.0	0.021*
	Nursing	73.6 ± 5.5	63.0	86.0	

DISCUSSION

The study involved a total of one hundred twenty (120) students from both disciplines, 58 of whom (48.3%) were from the University of Health Sciences, Lahore, and 62 of whom (51.7%) were from the University of Lahore.

The participants' ages ranged from 21 to 52, with a mean age of 32.4 6.4. The participants were split by gender, with 28(23.3%) men and 92(76.7%) women. 72(60%) students were from the Master of Science in Nursing programme, and 48(40%) were MS Medical (Basic Sciences) students. Similar results for

participant demographics (gender) were provided by various studies^{12,13}, who noted that 81% and 74% of students, respectively, were female in both investigations. One study participants ranged in age from 26 to 50 years, validated the findings of the current investigation with reference to age¹⁴. The bulk of participants in the current study were from the nursing field. The results of the present study are consistent with one previous study¹⁵, who found that the majority of participants in their study were from the nursing discipline (43%) followed by pharmacy students (42%) and only 15% came from the medical field. The majority of medical and dentistry students did, however, participate in studies on IPL,

according to published literature, whereas only a small number of studies indicated lower participation rates from the nursing profession¹⁶. This scenario demonstrates that there has been little progress made in nursing education and/or that nursing students are not given the opportunity to participate.

On a readiness scale for the IPL, the majority of survey participants showed favourable views towards teamwork and collaboration. These results showed that both groups of students had positive attitudes towards cooperation and teamwork. Our results are in line with study¹⁷, who found that postgraduate medical and nursing students preferred teamwork and information sharing in their study.

In the current study, 96% of the students showed that collaborative learning improved their perceptions of their professional selves, and they were eager to take advantage of any possibilities to collaborate on projects in small groups with other health care students. The current study's findings concur with one researcher¹⁸, who found that medical students' professional identities had improved during IPL sessions. The findings of our study, which showed that IPL improved professional identity among medical students assigned to multi professional teams as a team member, were supported by another study¹⁹.

Between postgraduate medical and nursing students, there was no discernible difference in the mean attitudes score of the duty and responsibility area in the current study. About 67% of participants in both groups reported that the role of nurses and other healthcare team members is to support doctors only; even half of them were unsure of what their professional role was. This indicates that the majority of participants in both groups were unaware of their professional roles and responsibilities. 86% of the students, however, felt that they needed to understand their professional role and responsibilities and that it needed to be made clear to them. This demonstrates their willingness to learn about their professional job through collaborative learning. Our results are consistent with one study²⁰, who found that research participants wanted to learn about their professional roles in a group setting. Our findings were in line with those who discovered that IPL has the potential to create a culture of shared learning among healthcare professionals to aid in their understanding of both their own and other healthcare professionals' roles.²¹ On the other hand, a study produced unexpected results because while the respondents in that study were willing to take part in the IPL, the majority of them showed erratic behaviour in terms of their roles and duties²².

The Shapiro Wilk test was used to determine whether the data were normal. The data was evenly dispersed, according to the results. To compare the mean attitudes scores of the teamwork and collaboration, professional identity, and duty and responsibility areas of the Inter-professional Learning Scale between postgraduate medical and nursing students, an independent sample t-test was used. The results of the current study showed that students in the nursing discipline were more supportive of IPL than students in the medical discipline. The results of our study are consistent with one study, who noted that because nursing students were given more credit for peer learning than medical students, they had exhibited a more positive attitude towards IPL¹⁶. **Limitations of study:** The sample size for this study was 120 participants, and the data were only collected from two universities in Lahore. A sample from the entire province with a higher sample size might offer a more comprehensive picture of the research issue.

CONCLUSION

It was concluded that early adoption of inter-professional learning programmes at the beginning of professional training and the provision of a suitable learning environment for healthcare learners

will promote collaboration and cooperation in clinical settings, which may also improve patient and family satisfaction. This approach will be useful in relieving professional tension and discord, which will undoubtedly result in seamless operation of healthcare facilities and lower the financial burden on patients, families, and the nation.

Authors' Contribution: NN&SK: Conception and design of work. **RM&RY:** Collecting and analyzing the data. **SE & AMN:** Drafting the manuscript

Conflict of interest: None

Funding: None

REFERENCES

- Bhatia-Lin, A., Wong, K., Legha, R. and Walker, V.P., 2021. What Will You Protect? Redefining Professionalism Through the Lens of Diverse Personal Identities. *MedEdPORTAL*, 17, p.11203.
- Brandt, L., 2017. Personal professional identity formation through interprofessional learning and early patient encounter during preclinical years. *Korean journal of medical education*, 29(3), p.203.
- Cason, M., Sessions, L.C., Nemeth, L., Catchpole, K. and Bundy, D.G., 2020. Components of team science—What contributes to success?. *Journal of Interprofessional Education & Practice*, 18, p.100298.
- Granheim, B.M., Shaw, J.M. and Mansah, M., 2018. The use of interprofessional learning and simulation in undergraduate nursing programs to address interprofessional communication and collaboration: An integrative review of the literature. *Nurse education today*, 62, pp.118-127.
- Jiang, T., Tavares, M.A., Ticku, S.H., Riedy, C.A., Silk, H.J. and Sullivan, K.M., 2020. Interprofessional education in dental schools: Results of a national survey. *J Interprofessional Educ Pract*, 18, p.100256.
- Maharajan, M.K., Rajiah, K., Khoo, S.P., Chellappan, D.K., De Alwis, R., Chui, H.C., Tan, L.L., Tan, Y.N. and Lau, S.Y., 2017. Attitudes and readiness of students of healthcare professions towards interprofessional learning. *PLoS one*, 12.
- Marletta, Giuseppe, Leopoldo Sarli, Luca Caricati, and Tiziana Mancini. 2017 "Intergroup contact and team functioning among nursing students, *Acta Bio Medica: Atenei Parmensis* 88, no. Suppl 3 pp.37.
- Morse, J.C. and Brown, C.W., 2020. Interprofessional Learning in Immediate Life Support training improves simulated patient related outcomes. *medRxiv*, pp.12.
- Parrott, J.S., Sabato, E., Findley, P., Gataletto, M.A. and Fenesy, K., 2021. Improving interprofessional collaboration through data-driven process evaluation of interprofessional case reviews. *Journal of Interprofessional Education & Practice*, 22, p.100364.
- Saaranen, T., Silén-Lipponen, M., Palkolahti, M., Mönkkönen, K., Tiihonen, M. and Sormunen, M., 2020. Interprofessional learning in social and health care. *Nursing Open*, 7(6), pp.1978-1987.
- Salberg, J., Ramklint, M. and Öster, C., 2021. Nursing and medical students' experiences of interprofessional education during clinical training in psychiatry. *Journal of Interprofessional Care*, 1-7.
- Wong, A.K.C., Wong, F.K.Y., Chan, L.K., Chan, N., Ganotice, F.A. and Ho, J., 2017. The effect of interprofessional team-based learning among nursing students: A quasi-experimental study. *Nurse Education Today*, 53, pp.13-18.
- Zaher, S., Otaki, F., Zary, N., Al Marzouqi, A. and Radhakrishnan, R., 2022. Effect of introducing interprofessional education concepts on students of various healthcare disciplines: a pre-post study in the United Arab Emirates. *BMC Medical Education*, 22,1-14.
- Ward J, Randall V. From college graduate to physician: professional identity formation. *MedEdPublish*. 2020;9(180):180.
- Santivasi WL, Nordhues HC, Hafferty FW, Vaa Stelling BE, Ratelle JT, Beckman TJ, Sawatsky AP. Reframing professional identity through navigating tensions during residency: A qualitative study. *Perspectives on Medical Education*. 2022;11(2):93-100.
- Byram JN. The professionalization of medical students: a longitudinal analysis of professional identity formation and professionalism perceptions in second and third year medical students. *Indiana University-Purdue University Indianapolis*; 2017.
- Sarrafi-Yazdi S, Teo YN, How AE, Teo YH, Goh S, Kow CS, Lam WY, Wong RS, Ghazali HZ, Lauw SK, Tan JR. A scoping review of professional identity formation in undergraduate medical education. *Journal of general internal medicine*. 2021;36(11):3511-21.
- Mount GR, Kahke R, Melton J, Varpio L. A critical review of professional identity formation interventions in medical education. *Academic Medicine*. 2022;97(11S):S96-106.
- Jarvis-Selinger S, MacNeil KA, Costello GR, Lee K, Holmes CL. Understanding professional identity formation in early clerkship: a novel framework. *Academic medicine*. 2019;94(10):1574-80.
- Bhatia-Lin A, Wong K, Legha R, Walker VP. What will you protect? Redefining professionalism through the lens of diverse personal identities. *MedEdPORTAL*. 2021;17:11203.
- Reimer D, Russell R, Khallouq BB, Kauffman C, Hernandez C, Cendán J, Castiglioni A. Pre-clerkship medical students' perceptions of medical professionalism. *BMC medical education*. 2019;19:1-9.
- Tagawa M. Scales to evaluate developmental stage and professional identity formation in medical students, residents, and experienced doctors. *BMC Medical Education*. 2020;20:1-9.