

# Perception Of Socialization In Interprofessional Practice Among Healthcare Professionals At Tertiary Healthcare Facility

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## Abstract

**Objective:** To analyze the perceptions of health care professionals from a variety of fields (Anesthesia, Radiology, Gynecology, Surgery, and Orthopedics) on inter-professional socialization in a clinical setting to determine any potential disparities between educational training and to identify gaps.

**Method:** After obtaining ethical approval and informed consent, a cross-sectional study was conducted from April to June 2023 on 150 Healthcare professionals (Residents of Anesthesiology, Radiology, Gynaecology & Obstetrics, General Surgery and Orthopedics) working at CMH/PEMH. Consecutive non-probability sampling was utilized to collect the data. A close-ended questionnaire with interprofessional socialization and valuing scale was administered to the participants, providing proper instructions through hard copy and Google Forms. Data was analyzed by using SPSS version 25. Descriptive statistics were applied.

**Results:** Study results revealed that participants developed a recognition of the advantages of inter-professional collaboration with the highest score of valuing patient-centred care followed by self-perception of team responsibility and the lowest score of comfort in working with others.

**Conclusion:** This research gives a unique perspective on the experiences of health science professionals from various fields (Anesthesiology, Gynecology, Orthopedics, Radiology, and Surgery) in Interprofessional socialization.

**Keywords:** Interprofessional Socialization and Valuing Scale, Interprofessional Education, Healthcare professionals

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## 1. Introduction

To keep up with the ever-changing demands of patients, healthcare providers must work together in Interprofessional teams. It is becoming increasingly important to adopt an Interprofessional client-centred strategy in the healthcare industry as it adapts to suit the needs.<sup>1</sup> It helps us get closer to the goal of providing care that is prompt, efficient, and effective. As a result, Interprofessional education activities have become a standard part of healthcare professionals' training.<sup>2</sup>

The World Health Organization (WHO) defines Interprofessional Education (IPE) as the process by which professionals from different fields learn about, from, and with each other to foster productive collaboration and better outcomes. Improved socialization is just one of the many good outcomes that have been shown to result from health science students' participation in Interprofessional education (IPE) activities.<sup>3</sup> Because of this, health science programs are increasingly including a wide range of Interprofessional active learning activities to better

prepare their students for the leap from classroom theory to real-world application. The goal of these activities is to give students opportunities to put theoretical knowledge into practice.<sup>4</sup>

Students and practitioners in the health sciences approach the clinical setting with the expectation that they will use what they have learnt through Interprofessional education (IPE) in the classroom.<sup>5,6</sup> Students begin to form their professional networks in classroom settings where they participate in disciplinary-specific learning activities. However, this procedure also occurs in clinical settings, which frequently feature impediments to collaboration.<sup>7</sup> Due to a lack of interaction between specialists in different fields of medicine, there is a lot of misunderstanding and disrespect among them. Students' ability to work together and communicate effectively has benefited greatly from the inclusion of IPE learning activities into professional educational programs. It has also helped them realize the value of building relationships with others in the healthcare field.

There is a dearth of research into the efficacy of translating the skills acquired during IPE activities into clinical practice settings, despite the encouraging

progress observed in Interprofessional Education (IPE) towards the adoption of suitable professional socialization and the incorporation of IPE as a mandatory curricular requirement for accreditation in most healthcare education programs. According to the available literature, interdisciplinary collaboration between academic institutions and medical practices is quite uncommon.<sup>8</sup> This study aims to investigate the perspectives of healthcare workers from diverse fields of clinical sciences about inter-professional socialization.

**2. Materials & Methods**

After obtaining ethical approval from IERB (Ref no. 2023), the cross-sectional study was conducted from April to June 2023 on 150 health professionals working at CMH/PEMH. Data was gathered by consecutive non-probability sampling from postgraduate residents.

**Inclusion Criteria:** Post-graduate residents of either gender (anaesthesia, radiology, gynaecology, surgery, and orthopaedics) were included in the study.

**Exclusion Criteria:** Undergraduate medical students were excluded.

The researchers administered a closed-ended questionnaire with the Interprofessional Socialization and Valuing Scale (ISVS) to the participants after informed consent, providing proper instructions through both hard copy and Google Forms. Confidentiality of the study participants was maintained.

Data was analyzed by using Statistical Package for Social Sciences (SPSS) 22.00. Mean ± standard deviation (SD) was calculated for quantitative variables and Frequency and percentage were calculated for qualitative variables. Cronbach's alpha was used for the validation of the Interprofessional Socialization and Valuing Scale (ISVS). ANOVA test was for a discipline-wise comparison of interprofessional specialization. The p-value ≤ 0.05 was considered statistically significant.

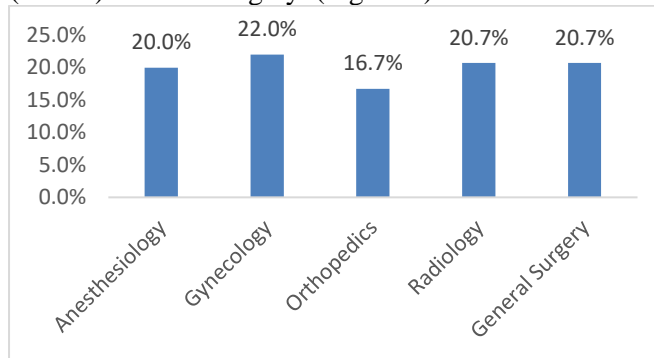
**3. Results**

A total of (n=150) residents were included in this study, and all the study subjects were identified as current residents with full-time clinical experience. Mean work experience was 5.20±3.63 years. Out of the total, 87 (58.0%) residents were male and 63 (42.0%) females with a mean age of 32.01±4.71 Years. The demographic characteristics of the residents are shown in Table 1.

**Table 1: Demographic characteristics of the Residents (n=150)**

Parameters	n (%)	
<b>Gender</b>	Male	87 (58.0%)
	Female	63 (42.0%)
<b>Mean age in Years</b>	32.01±4.71	
<b>Mean experience in Years</b>	5.20±3.63	

Out of total residents, 33 (22.0%) residents were from the gynaecology department, 31 (20.7%) radiology 25 (16.7%) orthopedics, 30 (20.0%) anaesthesiology and 31 (20.7%) General surgery. (Figure 1)



**Figure 1: Disciplines of Health Care Professionals (n=150)**

The Table 2 results revealed a lower mean for all items. The survey items with the lowest mean are "I feel comfortable initiating discussion about sharing responsibility for client care" (mean = 3.83), "I feel comfortable debating issues in a team" (mean = 3.93), "I feel comfortable speaking out within the team where others are not keeping the best interests of the client in mind" (mean = 3.99), and "I feel comfortable clarifying misconceptions with other members of the team about the role of someone in my profession" (mean = 3.99). Table 3 presents the internal consistency reliabilities, mean item scores, and standard deviations of each scale. Internal consistency assesses how well items contribute to the measurement of a single construct and is reported using Cronbach's alpha. The coefficient alphas ranged from 0.79 to 0.89, indicating moderate to excellent reliability. The coefficient alpha for the scale as a whole (24 items) was 0.958 indicating that survey items have strong internal consistency. The mean item scores ranged from 4.07 (for Comfort in Working with Others) to 4.35 (for Valuing Patient-Centred Care), indicating that greater comfort with team interaction occurred on average to a fairly great extent. In contrast, self-perceived ability to work with others occurred to a great extent as a consequence of participation in the workshops. The standard deviations of the scales were low (5.68 to 6.98), indicating that the ISVS captured diversity in responses, as desired.

**Table-2: Inter professional socialization and valuing scale survey results (n=150)**

S.No.	Factors	Mean ± SD
<b>A- Comfort in Working with Others</b>		
1.	I'm at ease starting a conversation about sharing responsibilities for client care.	3.83 ± 1.62
2.	I feel at ease arguing problems in groups.	3.93 ± 1.56
3.	In a team setting, I am at ease as the leader.	4.33 ± 1.71
4.	I am comfortable taking on different positions in a team.	4.13 ± 1.62
5.	In a group conversation, I can share and exchange ideas.	4.21 ± 1.58
6.	I am comfortable speaking up within the team when others are not acting in the best interests of the client.	3.99 ± 1.59
<b>B- Value of Collaborating with Others</b>		
7.	I prefer to work as part of a multidisciplinary team.	4.17 ± 1.62
8.	I've grown to appreciate the advantages of interprofessional collaboration.	4.08 ± 1.47
9.	I've gained a better understanding of the value of working as a team.	4.29 ± 1.69
10.	I believe that interprofessional practise will inspire me to stay in my field.	4.16 ± 1.58
11.	Interprofessional practise, in my opinion, is not a waste of time.	4.29 ± 1.64
<b>C- Self-Esteemed Capability to Collaborate with Others</b>		
12.	Within an interprofessional team, I have gotten a greater grasp of my own approach to treatment.	4.45 ± 1.67
13.	I am able to listen to other team members.	4.31 ± 1.46
14.	I am at ease explaining misconceptions about the function of someone in my field with other team members.	3.97 ± 1.59
15.	I place a higher value on contact with team members that is open and honest	4.34 ± 1.65
16.	I now have more realistic expectations of other team members.	4.23 ± 1.67
17.	I now have a better understanding of the duties of other professionals in a team.	4.21 ± 1.63
<b>D- Self-Awareness of Team Responsibility</b>		
18.	Accepting responsibilities allocated to me within a team makes me feel at ease.	4.21 ± 1.63
19.	I am confident in my ability to contribute completely to the team.	4.43 ± 1.70
20.	I am at ease with being held accountable for the duties I have accepted.	4.51 ± 1.49
<b>E- The Value of Patient-Centered Care</b>		
21.	I am comfortable making joint decisions with clients.	4.10 ± 1.53
22.	I now have a greater knowledge of the client's engagement in care decision making.	4.44 ± 1.53
23.	I've realised how important it is to have the customer and family as members of a team.	4.25 ± 1.51

There was no statistically significant difference between discipline and the comfort in working with others component (p value=0.469), value in working with

others factor (p value=0.454), self-perceived ability to work with others factor (p-value = 0.144), and valuing of patient-centered care factor (p-value=0.403). as indicated in the table, the factor "self-perception of team responsibility" differed significantly from discipline with a p-value of 0.014.

**Table 3: Mean Scores of Attributes**

Factors	Cronbach's alpha	Mean ± SD
<b>Comfort in Working with Others</b>	0.82	4.07±1.18
<b>Value in Working with Others</b>	0.91	4.20±1.20
<b>Self-Perceived Ability to Work with Others</b>	0.89	4.25±1.19
<b>Self-Perception of Team Responsibility</b>	0.92	4.34±1.34
<b>Valuing of Patient-Centred Care</b>	0.85	4.35±1.22

According to the world health organization, IPE aims to achieve client client-centred approach through socialization and collaboration of health professionals across a variety of disciplines. It has also been emphasized in the literature that just like other skills for health care professionals, inter-professional collaboration is a pivotal skill in improving overall health-related outcomes for patients.

The present study aimed to evaluate participants' attitudes and perceptions towards interprofessional teamwork using the Interprofessional Socialization and Valuing Scale (ISVS). The findings of this study offer a valuable understanding of the initial professional perspectives regarding socialization among residents of health sciences from different disciplines.

Previously, healthcare professionals used to work independently in silos, occasionally transferring care to another health professional. However, the healthcare system is now under immense pressure due to the following factors such as the increasing emphasis on patient safety, the explosion of biomedical knowledge, the presence of patients with multiple diseases, increased life expectancy and the rise in medico-legal claims. As the population's demands change, the healthcare workforce must constantly adapt to meet these demands. In general, the results of this study indicate that participants in the study acknowledge the significance of the collaborative approach and the value of inter-professional teamwork. Now more than ever, professionals from different fields have to collaborate.

**Table 4: Discipline-Wise Comparison of Interprofessional Specialization (n=150)**

Factors	Anaesthesiology (n=30)	Gynaecology (n=33)	Orthopaedics (n=25)	Radiology (n=31)	General Surgery (n=31)	p value
Comfort in Working with Others	4.30±1.38	3.84±1.08	4.13±0.73	3.89±0.95	4.21±1.18	0.469
Value in Working with Others	4.37±1.48	4.20±1.13	4.20±0.72	3.85±1.05	4.36±1.40	0.454
Self-Perceived Ability to Work with Others	4.47±1.50	4.01±1.24	4.17±0.77	3.98±0.84	4.62±1.33	0.144
Self-Perception of Team Responsibility	4.63±1.64	3.92±1.37	4.69±1.37	3.88±1.08	4.70±1.45	0.014*
Valuing of Patient-Centered Care	4.38±1.24	4.31±1.25	4.54±0.93	4.01±1.29	4.56±1.31	0.403

The training of graduates to become an efficient team member in the field of healthcare has evolved to incorporate inter-professional educational activities.

There is an ongoing dialogue regarding the prevalence, vitality, and evolution of inter-professional practice in clinical settings. It has been observed that students tend to adopt a conventional mindset focused on their discipline, which leads them to encounter challenges in effectively engaging with other healthcare professionals to address complex issues in the context of clinical practice. The participants in this study recognize that effective communication and fostering a sense of team spirit are crucial elements that can enhance their ability to collaborate and improve patient care.

#### 4. Discussion

Examining the specific factors assessed in the study, the mean scores for Comfort in Working with Others, Value in Working with Others, Self-Perceived Ability to Work with Others, Self-Perception of Team Responsibility, and Valuing of Patient-Centered Care all exceeded the midpoint of the rating scale, indicating overall positive perceptions. These findings suggest that the participants have a strong inclination towards interprofessional collaboration and demonstrate a recognition of the importance of working effectively with others in a team setting.<sup>9</sup>

It has already been indicated in other research that when the participants of IPS intervention programs were engaged with learners from other disciplines, they were able to develop insight and favourable attitudes, towards the team members of other professions. They considered it as an opportunity to transform their conventional views about their profession as well as preexisting beliefs and misperceptions about other health professions. They were able to appreciate and value the

level of contribution from other health professionals in the study groups.

In relevance to this, the survey items of this study related to comfort and communication within the team displayed slightly lower mean scores. Specifically, the items "I feel comfortable initiating discussion about sharing responsibility for client care," "I feel comfortable debating issues in a team," "I feel comfortable speaking out within the team where others are not keeping the best interest of the client in mind," and "I feel comfortable clarifying misconceptions with other members of the team about the role of someone in my profession" garnered relatively lower mean scores. These results suggest that participants may have some areas of potential improvement in terms of comfort and confidence in specific aspects of working with others in an interprofessional team. These results support existing literature highlighting the negative impact of ineffective communication on patient care quality.

According to previous research, the participants have agreed on several benefits of this approach, however, they also perceive challenges when it comes to interprofessional education and the difficult transition from education to practice within authentic clinical environments. Despite students showing a readiness to learn, they lack the guidance to comprehend the roles of other health disciplines. Healthcare educators are responsible for fostering inclusive collaborative relationships among disciplines, but they face the challenge of enhancing the understanding of the roles and responsibilities among learners from various disciplines. Woodworth highlights the importance of educators creating more opportunities for students to engage in interprofessional experiences within educational settings.<sup>10</sup> Educators should emphasize viewing themselves as interprofessional faculty rather than solely focused on their profession, aiming to inspire

students to embrace and advocate for an interprofessional team-based healthcare system.<sup>11</sup>

They do believe that an encouraging workplace culture of inter-professional team interaction has to be in place to value and support the group dynamics between different specialities for superior patient outcomes.<sup>12</sup>

Nonetheless, the overall positive perceptions demonstrated by the participants, as reflected in the higher mean scores for other factors, indicate a positive inclination towards inter-professional teamwork. The highest mean scores were observed for Valuing Patient-Centered Care, followed by Self-Perception of Team Responsibility, Self-Perceived Ability to Work with Others, Value in Working with Others, and Comfort in Working with Others. This suggests that participants highly value patient-centred care, recognize their responsibilities within the team, exhibit confidence in their ability to work with others, and appreciate the benefits of interprofessional collaboration. We need to develop a collaborative workplace which can foster and encourage interprofessional team interaction.

The strong internal consistency of the survey items, as indicated by the high Cronbach's alpha coefficient (0.958),<sup>13</sup> suggests that the ISVS is a reliable tool for assessing participants' socialization and values related to interprofessional teamwork and collaboration.<sup>14</sup> The high coefficient indicates that the survey items are measuring the same underlying construct consistently.

The positive attitudes and perceptions observed in this study suggest that the participants have the potential to contribute positively to interprofessional teams, leading to better overall patient care and outcomes. These findings also align with previous research highlighting the importance of interprofessional collaboration in healthcare settings.<sup>15,16</sup> Effective teamwork and collaboration among healthcare professionals have been linked to improved patient outcomes, enhanced communication, and increased satisfaction among both patients and healthcare providers.<sup>17,18</sup>

It is worth noting that this study has certain limitations. Firstly, the sample size and composition might limit the generalizability of the findings to a larger population. Additionally, the study relied on self-reported data, which may introduce response bias and social desirability effects. We can also draw inferences from participants' experience, that there are some challenges in implementing IPP lack of optimal training. Future research could address these limitations by including a more diverse and representative sample, utilizing

additional measurement tools, and incorporating objective measures of Interprofessional collaboration and its impact on patient outcomes.

The findings of this study indicate positive attitudes and perceptions towards Interprofessional teamwork among the participants. Despite slightly lower mean scores for some items related to comfort and communication within the team, participants demonstrated overall positive perceptions, valuing patient-centred care, recognizing their responsibilities, and exhibiting confidence in their ability to work with others in an Interprofessional setting. These results highlight the importance of fostering and promoting Interprofessional collaboration in healthcare education and practice, aiming to improve patient outcomes and enhance the overall healthcare experience.

## 5. Conclusion

This study provides a unique viewpoint on the experiences of practising health science professionals from a variety of disciplines (Anesthesiologist, Gynaecologist, Orthopaedic, Radiologist, and Surgeon) on interprofessional socialisation in the clinical setting. According to the study, while the benefit of joint practice is emphasised in academia, additional measures are required to help students transition from interprofessional education (IPE) to interprofessional practice (IPP).

**CONFLICTS OF INTEREST-** None

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**Potential competing interests:** None to report

**Contributions:**

K.Q, A.A.K, T.A.K, A.H, R.K, T.A - Conception of study

K.Q, A.A.K, T.A.K, A.H, R.K, T.A - Experimentation/Study Conduction

K.Q, A.A.K, T.A.K, A.H, R.K, T.A - Analysis/Interpretation/Discussion

K.Q, A.A.K, T.A.K, A.H, R.K, T.A - Manuscript Writing

K.Q, A.A.K, T.A.K, A.H, R.K, T.A - Critical Review

K.Q, A.A.K, T.A.K, A.H, R.K, T.A - Facilitation and Material analysis

All authors approved the final version to be published & agreed to be accountable for all aspects of the work.

## References

1. Guraya SY, Barr H. The effectiveness of interprofessional education in healthcare: a systematic review and meta-analysis. *Kaohsiung J Med Sci.* 2018;34(3):160–165. DOI: 10.1016/j.kjms.2017.12.009.
2. Yune SJ, Park KH, Min YH, Ji E. Perception of interprofessional education and educational needs of students in South Korea: a comparative study. *PLoS One.* 2020;15(12):e0243378. DOI: 10.1371/journal.pone.0243378.
3. World Health Organization. Framework for Action on Interprofessional Education & Collaborative Practice. Health Professions Networks. Geneva: WHO; 2010. [internet].
4. Eschborn S, Weitkamp JH. Procalcitonin versus C-reactive protein: review of kinetics and performance for diagnosis of neonatal sepsis. *Journal of Perinatology.* 2019 Jul;39(7):893-903.
5. van Gessel E, Picchiottino P, Doureradjam R, Nendaz M, Mèche P. Interprofessional training: start with the youngest! A program for undergraduate healthcare students in Geneva, Switzerland. *Med Teach.* 2018;40(6):595–599. DOI: 10.1080/0142159X.2018.1445207.
6. Power A. Interprofessional education: shared learning for collaborative, high-quality care. *British Journal of Midwifery.* 2019 Feb 2;27(2):128-9. DOI: 10.12968/bjom.2019.27.2.128.
7. Park G, Kim S, Lee H, Cho J, Jin S, Yune S. Differences in attitudes to patient safety and readiness for interprofessional learning in medical students according by gender and grade. *J Educ Innov Res.* 2019;29(4):429-50.
8. Almalki A, Park YS, Tekian A. Needs assessment for interprofessional education: implications for integration and readiness for practice. *Healthcare.* 2021;9(4):411. DOI: 10.3390/healthcare9040411.
9. Shustack L, Karnish K, Brogan L. Perceptions of socialization in interprofessional practice among health science students and first-year practicing professionals. *Journal of Interprofessional Education & Practice.* 2021 Jun 1;23:100420.
10. Woodworth JA. Promotion of nursing student civility in nursing education: A concept analysis. In *Nursing forum 2016 Jul (Vol. 51, No. 3, pp. 196-203).*
11. Jeffries P. *Clinical simulations in nursing education: Advanced concepts, trends, and opportunities.* Lippincott Williams & Wilkins; 2022 Sep 21.
12. Babiker A, El Hussein M, Al Nemri A, Al Frayh A, Al Juryyan N, Faki MO, et al. Health care professional development: Working as a team to improve patient care. *Sudan J Paediatr.* 2014;14(2):9-16.
13. King G, Orchard C, Kahalili H, Avery L. Refinement of the interprofessional socialization and valuing scale (ISVS-21) and development of 9-item equivalent versions. *JCEHP.* 2016;36(3):171–177. <https://doi.org/10.1097/CEH.0000000000000082>
14. King G, Shaw L, Orchard C, Miller S. The Interprofessional Socialization and Valuing Scale: a tool for evaluating the shift toward collaborative care approaches in health care settings. DOI:10.3233/WOR-2010-0959.
15. Pabian PS, Neely L, Gonzalez Luna E, Presnell B, Delgado M, Tucker J. The Relationship Between Interprofessional Collaborative Practice Experience and Interprofessional Attitudes in Students from Health Professions. *Journal of Allied Health.* 2022 ;51(3):163-171.
16. Babiker A, El Hussein M, Al Nemri A, Al Frayh A, Al Juryyan N, Faki MO, et al. Health care professional development: Working as a team to improve patient care. *Sudanese journal of paediatrics.* 2014;14(2):9.
17. Jha N, Palaian S, Shankar PR, Poudyal S. Readiness for Interprofessional Learning Among First Year Medical and Dental Students in Nepal. *Adv Med Educ Pract.* 2022;13:495-505. DOI: 10.2147/AMEP.S354210.
18. Kersbergen MJ, Creugers NH, Hollaar VR, Laurant MG. Perceptions of interprofessional collaboration in education of dentists and dental hygienists and the impact on dental practice in the Netherlands: A qualitative study. *European Journal of Dental Education.* 2020 Feb;24(1):145-53. DOI: 10.1111/eje.12478.