

## A Questionnaire Based Study on Awareness of Students in Internship Training or Final Year Across 3 Disciplines Regarding Inter-Professional Education - A Descriptive Cross Sectional Study

Renuka S\* and Gheena S

Department of Oral Pathology, Saveetha Dental College and Hospitals, Chennai, Tamil Nadu, India

### Abstract

**Aim:** The aim of this study is to evaluate the awareness among internship students regarding inter-professional Education.

**Objective:** Questionnaire will be devised and administered to students of medical, dental and nursing in final year and internship training.

**Background:** Inter-professional Education (IPE) is an important facet for health professionals because it will benefit them while working along with different professionals in their particular work areas. All health care professionals should be Educated about inter-professional skills for better communication with other health professionals. Good communication and interaction skills will enhance the quality of treatment and will result in enhanced patient satisfaction.

**Reason:** Proper inter-professional Education is of utmost importance for quality treatment and enhanced patient satisfaction. The main reason of this study is to instil awareness in internship students about inter-professional Education and its benefits in their career.

**Keywords:** Inter-professional Education; Communication; Awareness; Internship; Students

### Introduction

IPE refers to occasions when students from two or more professions in health and social care learn together during all or part of their professional training with the object of cultivating collaborative practice [1] for providing patient-centred care. IPE plays an important role in health care. Good communication between health care professionals is important for both health professionals and patients. Good communication between health care professionals will enhance the positive relationship between professionals and also helps in quality treatment for the patients. Recent studies show that many patients are benefited from respectful communication with health care professionals, which will enhance the patient's satisfaction [2]. Recent evidence shows that students in various IPE initiatives had positive changes in their attitudes, knowledge, skills and greater level of interactivity between different professionals during IPE training [3-5]. Inter-collegial communication has many potential benefits during practice by increasing job satisfaction and flexibility. Stress and work place tension reduces when health care personnel work together as a team. The importance of IPE emerged from the need for health care team members to provide high-quality care in the most collaborative and competent way [6]. Each member of a health care team need to know about the role of other professionals for good communication and for quality practice. The importance of inter-collegial communication can be mostly seen in surgery ward. IPE pays more attention towards team work. IPE effectively teaches the students about the role of other professions and to change the attitude of the students from one profession towards other professionals. The aim of this study is to identify whether students from medical, dental and nursing are aware about inter professional Education when in their final year and internship training.

### Materials and Methods

This is a questionnaire based study on the awareness of inter-

professional Education among students in internship training. The participants include students of medical, dental and nursing during their final year and internship training from various colleges. The questionnaire is filled in paper and pen method. After the data collection, statistical measurements are done with Chi-square test. Data is collected from 80 participants of each profession during their final year and internship under the supervision of dental students.

The questions mentioned in the Appendix 1 have been asked to the medical, dental and nursing students during their final year and internship through the questionnaire. The answers were marked according to their knowledge. All the fifteen questions are of yes or no type. The IRB (Institutional Review Board) protocol number for this study is STP/16SDIIBDS52.

### Results

This study includes total 240 participants of medical, dental and nursing students from different colleges during their final year and internship training. Among 80 students from each profession 37.5% interns and 62.5% final year from medical, 60% interns and 40% final year from dental and 100% final year from nursing ( $p < 0.001$ ) participated which is tabulated in Table 1.

General awareness about Inter-professional Education in the

**\*Corresponding author:** Renuka S, Saveetha Dental College and Hospitals, No. 162, Poonamalle High Road, Chennai-600 077, Tamil Nadu, India, Tel: +919551200126; E-mail: [renuka2602@gmail.com](mailto:renuka2602@gmail.com)

**Received** August 02, 2016; **Accepted** September 12, 2016; **Published** September 20, 2016

**Citation:** Renuka S, Gheena S (2016) A Questionnaire Based Study on Awareness of Students in Internship Training or Final Year Across 3 Disciplines Regarding Inter-Professional Education - A Descriptive Cross Sectional Study. J Health Educ Res Dev 4: 191. doi: [10.4172/2380-5439.1000191](https://doi.org/10.4172/2380-5439.1000191)

**Copyright:** © 2016 Renuka S, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

population of 240 is 84.2%. Students were aware about the meaning of IPE and 15.8% were not aware about it completely. Among 84.2% students, 87.5% are from medical, 86.3% are from dental and 78.8% from nursing are aware about inter-professional Education (p=0.261). In comparison between years of study, 88.5% are aware among interns and 82.1% are aware among final year (p=0.206). Among medical profession, 87.5% of interns and final year were aware about IPE and 12.5% were not (p=0.383). Among dental profession, 86.3% from interns and final year were aware and 13.8% were not (p=0.085). Among interns, 83.3% from medical, 91.7% from dental were aware about inter-professional Education (p=0.262). Among final years, 90% from medical, 78.1% from dental and 78.8% from nursing were aware (p=0.215).

84.2% of the population think that IPE is essential in curriculum. In that population, 63.7% from medical, 75% from dental and 100% from nursing states that IPE is essential in curriculum (p<0.001) and 83.8% from medical, 83.8% from dental and 98.8% from nursing think that it is essential especially during internship (p=0.002). On comparing

the year of study among professionals, 79.5% and 84.6% interns felt that it is essential in curriculum during internship training, 79.6% and 90.7% final year students' also felt that it is important during their internship (p=0.980) (p=0.160). Among medical professionals, 63.7% feels that IPE is important in curriculum (p=0.167) and 83.8% feels that IPE plays a vital role during internship (p=0.584). Among dental professionals, 75% (p=0.035) feels that IPE is important in curriculum, 83.8% (p=0.902) believe that it is essential during internship training. Among interns, 79.5% from medical and dental students feels that IPE is important in curriculum (p=0.287) and 84.6% medical and dental feels that it is important only during internship training (p=0.691). Among final years, 79.6% from medical, dental and nursing students feels that IPE is important in curriculum (p<0.001) and 90.7% medical, dental and nursing students feels that it is important only during internship training (p=0.002). 61.3% medical, 62.5% dental and 97.5% nursing students think that it is important to be taught communication skills together with other professionals (p<0.001) and 67.5% medical, 85% dental and 98.8% nursing students feels that communication skills that are related to patients safety should be taught together with other

	Professions					
	Medical		Dental		Nursing	
	Yes	No	Yes	No	Yes	No
1. Are you aware about Inter-professional Education (IPE)	70(87.5%)	10(12.5%)	69(86.3%)	11(13.8%)	63(78.8%)	17(21.3%)
2. Do you think IPE is essential in curriculum?	51(63.7%)	29(36.3%)	60(75%)	20(25%)	80(100%)	0
3. Do you think that IPE is important during internship	67(83.8%)	13(16.3%)	67(83.8%)	13(16.3%)	79(98.8%)	1(1.3%)
4. Do you think learning with other health care students would be difficult to manage?	43(53.8%)	37(46.3%)	34(42.5%)	46(57.5%)	43(57.8%)	37(46.3%)
5. Do you think patients will ultimately benefit in health and social care if students learn together.	50(62.5%)	30(37.5%)	65(81.3%)	15(18.8%)	72(90%)	8(10%)
6. Is it important to be taught communication skills with other health care students?	49(61.3%)	31(38.8%)	50(62.5%)	30(37.5%)	78(97.5%)	2(2.5%)
7. Is it important to be taught some of the communication skills that are related to patients' safety's for all health care disciplines together.	54(67.5%)	26(32.5%)	68(85%)	12(15%)	79(98.8%)	1(1.3%)
8. Are teamwork skills vital for all health care students?	63(78.8%)	17(21.3%)	68(85%)	12(15%)	79(98.8%)	1(1.3%)
9. Learning clinical skills together before qualification will improve the work environment.	45(56.3%)	35(43.8%)	59(73.8%)	21(26.3%)	78(97.5%)	2(2.5%)
10. Respecting other health care students is essential for IPE to be effective.	61(76.3%)	19(23.8%)	67(83.8%)	13(16.3%)	77(96.3%)	3(3.8%)
11. IPE for all health care disciplines is a waste of time.	61(76.3%)	19(23.8%)	49(61.3%)	31(38.8%)	15(18.8%)	65(81.3%)
12. It is not necessary for one health care discipline to learn together with other health care disciplines.	53(66.3%)	27(33.8%)	51(63.7%)	29(36.3%)	26(32.5%)	54(67.5%)
13. You would welcome the opportunity to learn clinical skills with other health care students.	45(56.3%)	35(43.8%)	59(73.8%)	21(26.3%)	78(97.5%)	2(2.5%)
14. IPE before qualification will help you to be a better team worker.	60(75%)	20(25%)	67(83.8%)	13(16.3%)	75(93.8%)	5(6.3%)
15. Do you think IPE in curriculum will improve your working efficiency during clinical practice and your professional career?	43(53.8%)	37(46.3%)	69(86.3%)	11(13.8%)	80(100%)	0

**Table 1:** Comparison awareness across disciplines.

professional students ( $p < 0.001$ ) and 62.5% medical, 81.3% dental and 90% nursing students think that patients will be benefited from effective treatment if the students learn together ( $p < 0.001$ ). In comparison between year of study, 74.4% interns and 79.6% final years think that it is important to be taught the communication skills together ( $p = 0.357$ ) and 64.1% interns, 78.4% final year feels that the communication skills should be related to patients safety ( $p = 0.018$ ). Thereby, 51.3% interns and 49.4% final year students think that patients will be benefited more because of IPE training ( $p = 0.783$ ). Among medical professionals, 50% interns and 68% final year think that learning communication skills together with other professionals is essential ( $p = 0.110$ ) and 66.7% interns and 68% final year states that the communication skills should be related to patients safety ( $p = 0.902$ ) and 56.7% interns, 66% final year feels that patients will be benefited because of IPE ( $p = 0.404$ ). On comparing year of study between dental professionals, 72.9% interns, 46.9% final year students and 85.4% interns, 84.4% final years and 85.4% interns, 75% final year feels that learning communication skills together with other professionals is essential ( $p = 0.018$ ), the communication skills should be related to patients safety ( $p = 0.898$ ), patients will be benefited because of IPE ( $p = 0.242$ ) respectively. Among Interns, 64.1% medical and dental ( $p = 0.040$ ), 78.2% medical and dental ( $p = 0.051$ ), 74.4% medical and dental ( $p = 0.005$ ) feels that learning communication skills together with other professionals is important, the communication skills should be related to patients safety, patients will be benefited because of IPE respectively. Among final years, only maximum of 97.5% nursing students feels learning communication skills together with other professionals is essential ( $p < 0.001$ ) than other professionals, maximum of 98.8% nursing students think that the communication skills should be related to patients safety ( $p < 0.001$ ) than other professionals and 90% of nursing students feels that patients will be benefited because of IPE ( $p = 0.003$ ) but only 66% from medical and 75% from dental students.

Some of the students have a negative opinion on inter-professional Education. From the analysis, 63% medical, 63.7% dental and 32.5% nursing students feels that it is not necessary for the professionals to learn together ( $p < 0.001$ ) and 52.1% from medical, dental and nursing students feels that IPE training is a waste of time ( $p < 0.001$ ) and 50% of professionals think that it is difficult to adjust with other professionals during IPE training ( $p = 0.259$ ). Comparison between interns and final year shows that 65.4% interns and 48.8% final year, 67.9% interns and 44.4% final year, 51.3% interns and 49.4% final year feels that IPE it is not necessary for the professionals to learn together ( $p = 0.016$ ), IPE training is a waste of time ( $p = 0.001$ ) and it is difficult to manage with other professionals during IPE training ( $p = 0.783$ ) respectively. Among medical professionals, 70% Interns and 64% final year, 80% interns and 74% final year, 56.7% interns and 52% final years feels that IPE it is not necessary for the professionals to learn together ( $p = 0.0583$ ), IPE training is a waste of time ( $p = 0.542$ ) and it is difficult to manage with other professionals during IPE training ( $p = 0.685$ ) respectively. Among dental professionals, 63.7% interns and final year, 61.3% interns and final year and 47.9% interns and 34.4% final year feels that IPE is not necessary ( $p = 0.776$ ), is a waste of time ( $p = 0.851$ ) and it is difficult to manage to learn with other health care disciplines ( $p = 0.230$ ). On comparing proportions between interns and final year, 65.4% medical and dental interns ( $p = 0.498$ ) and 48.8% from medical, dental and nursing final year ( $p < 0.001$ ), 67.9% medical and dental interns ( $p = 0.071$ ) and 44.4% from medical, dental and nursing final year ( $p < 0.001$ ), 51.3% medical and dental interns ( $p = 0.452$ ) and 49.4% from medical, dental and nursing final year ( $p = 0.163$ ). 87.5% of the population think that team work skills plays vital role among health

care disciplines. In that population, 78.8% from medical, 85% from dental and 98.8% from nursing states that team work is essential in health care professionals ( $p < 0.001$ ) and 75% from medical, 83.8% from dental and 93.8% from nursing think that IPE will help students to be a better team worker ( $p = 0.005$ ). On comparing the year of study among professionals, 79.5% and 91.4% interns felt that team work will play important role in health care ( $p = 0.009$ ). 83.3% and 84.6% final year students feels that IPE will help students to be a better team worker ( $p = 0.806$ ). Among medical professionals, 70% interns and 84% final year ( $p = 0.138$ ), 66.7% interns and 80% final year ( $p = 0.182$ ) feels that team work skills plays vital role among health care disciplines and IPE will help students to be a better team worker. Among dental professionals, 85.4% interns and 84.4% final year ( $p = 0.898$ ), 93.8% interns and 68.8% final years ( $p = 0.003$ ) believe that team work skills plays vital role among health care disciplines and IPE will help students to be a better team worker. Among interns, 79.5% from medical and dental feels that team work skills plays vital role among health care disciplines ( $p = 0.101$ ) and 83.3% medical and dental feels that will help students to be a better team worker ( $p = 0.002$ ). Among final years, 91.4% from medical, dental and nursing students feels that team work will play important role in health care ( $p = 0.004$ ) and 84.6% medical, dental and nursing students feels that will help students to be a better team worker ( $p = 0.002$ ).

Respecting other health care professionals is essential for IPE to be effective. In the population of 240, 85.4% students feels that respecting other disciplines make inter-professional training more effective. Among 85.4% students, 76.3% are from medical, 83.8% are from dental and 96.3% from nursing feels that respecting other disciplines make inter-professional training to be effective ( $p = 0.001$ ). In comparison between years of study, 85.9% interns and 85.2% final year think that IPE training will be effective when the professionals were respectful to each other ( $p = 0.884$ ). Among medical profession, 80% from interns and 74% final years felt that respecting other disciplines make inter-professional training to be effective ( $p = 0.542$ ). Among dental profession, 89.6% from interns and 75% final years think that respecting other disciplines renders inter-professional training to be effective ( $p = 0.083$ ). Among interns, 80% from medical, 89.6% from dental think that IPE training will be effective when the professionals were respectful to each other ( $p = 0.237$ ). Among final years, 74% are from medical, 75% from dental and 96.3% from nursing feels that respecting other disciplines make inter-professional training to be effective ( $p < 0.001$ ).

In the population of 240, 56.3% from medical, 73.8% from dental and 97.5% from nursing states that learning clinical skills together will help in improving working environment ( $p < 0.001$ ) and 53.8% from medical, 86.3% from dental and 100% from nursing think that IPE in curriculum will help to improve working efficiency ( $p < 0.001$ ). On comparing the year of study among professionals, 70.5% ( $p = 0.182$ ), 83.3% ( $p = 0.806$ ) interns and 78.4% and 84.6% final year students felt that learning skills will help to improve work environment and IPE in curriculum will improve working efficiency respectively. Among medical professionals, 50% interns and 60% final year ( $p = 0.383$ ), 60% interns and 50% final year ( $p = 0.385$ ) feels that learning clinical skills together with other professionals will improve work environment and IPE in curriculum will help to increase work efficiency. Among dental professionals, 83.3% interns and 59.4% final year ( $p = 0.017$ ), 93.8% interns and 75% final years ( $p = 0.017$ ) believe that learning skills will help to improve work environment and IPE in curriculum will improve working efficiency respectively. Among interns, 70.5% from medical and dental feels that learning clinical skills together with other professionals will improve work environment ( $p = 0.002$ ) and 80.8%

medical and dental feels that IPE in curriculum will improve working efficiency ( $p < 0.001$ ). Among final years, 78.4% from medical, dental and nursing students feels that learning clinical skills together with other professionals will improve work environment ( $p < 0.001$ ) and 79.6% medical, dental and nursing students feels that inter-professional Education in curriculum will increase working efficiency ( $p < 0.001$ ).

According to this analysis, the awareness about and willingness to participate in IPE among students is discussed. In the population of 240, 75.8% students were interested to learn clinical skills with other health care disciplines. Among 75.8% students, 56.3% from medical, 73.8% from dental and 97.5% from nursing students were interested in active learning about clinical skills with other health care students ( $p < 0.001$ ). In comparison between years of study, 73.1% interns and 77.2% final year feels that they are interested in IPE training ( $p = 0.489$ ). Among medical profession, 63.3% from interns and 52% final years are interested in IPE training ( $p = 0.323$ ). Among dental profession, 79.2% from interns and 65.6% final years were interested in active learning about clinical skills with other health care students ( $p = 0.177$ ). Among interns, 63.3% from medical, 79.2% from dental were interested in active learning about clinical skills with other health care students ( $p = 0.125$ ). Among final years, 52% from medical, 65.6% from dental and 97.5% from nursing students are interested in IPE training ( $p < 0.001$ ).

All data are collected then compared statistically and are tabulated in Tables 1-5 respectively. Graph 1 shows the differences between the participants from medical, dental and nursing students is significant according to chi-square test ( $p < 0.05$ ).

## Discussion

This study provides the awareness about Inter professional Education among students of various professions such as medical, dental and nursing during their final year and internship training. The present results showed that the students are aware to a certain extent about the importance of inter professional Education but still some of the students are sceptical about the necessity of IPE in their curriculum. In a recent study by Norgaard et al. they found that inter professional Education will improve the communication between different professionals as well as between professional and the patients. Their result states that before training, clinicians were less confident in communication with other professionals and patients. The improvement in communication was evident in inter professional communication than in intra-professional communication and the communication is much better after finishing the IPE training and more pronounced immediately as well as after 6 months from the training [7]. The most common barrier to IPE is the already overloaded curriculum. A recent survey by Mary et al. states that only minimal formal inter professional activities were conducted in the health care student's curriculum at the seven institutions was investigated. The researchers believe that IPE training among professionals' results in better delivery of health care which is safe, more effective and cost effective. For successful IPE training there must be commitment from both administration and faculties [8].

A recent study by Fallatah et al. states that only 11.4% knew the meaning of IPE and 88.6% had no idea what IPE was among 107 participants. According to our study, Most of the students were not aware about inter-professional Education initially. 84.2% students

	Medical, Dental and Nursing Professions			
	Interns		Final year	
	Yes	No	Yes	No
1. Are you aware about Inter-professional Education (IPE)	69(88.5%)	9(11.5%)	133(82.1%)	29(17.9%)
2. Do you think IPE is essential in curriculum?	62(79.5%)	16(20.5%)	129(79.6%)	33(20.4%)
3. Do you think that IPE is important during internship	66(84.6%)	12(15.4%)	147(90.7%)	15(9.3%)
4. Do you think learning with other health care students would be difficult to manage?	40(51.3%)	38(48.7%)	80(49.4%)	82(50.6%)
5. Do you think patients will ultimately benefit in health and social care if students learn together.	58(74.4%)	20(25.6%)	129(79.6%)	33(20.4%)
6. Is it important to be taught communication skills with other health care students?	50(64.1%)	28(35.9%)	127(78.4%)	35(21.6%)
7. Is it important to be taught some of the communication skills that are related to patients' safety's for all health care disciplines together.	61(78.2%)	17(21.8%)	140(86.4%)	22(13.6%)
8. Are teamwork skills vital for all health care students?	62(79.5%)	16(20.5%)	148(91.4%)	14(8.6%)
9. Learning clinical skills together before qualification will improve the work environment.	55(70.5%)	23(29.5%)	127(78.4%)	35(21.6%)
10. Respecting other health care students is essential for IPE to be effective.	67(85.9%)	11(14.1%)	138(85.2%)	24(14.8%)
11. IPE for all health care disciplines is a waste of time.	53(67.9%)	25(32.1%)	72(44.4%)	90(55.6%)
12. It is not necessary for one health care discipline to learn together with other health care disciplines.	51(65.4%)	27(34.6%)	79(48.8%)	83(51.2%)
13. You would welcome the opportunity to learn clinical skills with other health care students.	57(73.1%)	21(26.9%)	125(77.2%)	37(22.8%)
14. IPE before qualification will help you to be a better team worker.	65(83.3%)	13(16.7%)	137(84.6%)	25(15.4%)
15. Do you think IPE in curriculum will improve your working efficiency during clinical practice and your professional career?	63(80.8%)	15(19.2%)	129(79.6%)	33(20.4%)

**Table 2:** Comparison between year of study across disciplines.

	Comparison between Medical & Dental professionals respectively			
	Interns		Final year	
	Yes	No	Yes	No
1. Are you aware about Inter-professional Education (IPE)	25(83.3%) & 44(91.7%)	5(16.7%) & 4(8.3%)	45(90%) & 25(78.1%)	5(10%) & 7(21.9%)
2. Do you think IPE is essential in curriculum?	22(73.3%) & 40(83.3%)	8(26.7%) & 8(16.7%)	29(58%) & 20(62.5%)	21(42%) & 12(37.5%)
3. Do you think that IPE is important during internship	26(86.7%) & 40(83.3%)	4(13.3%) & 8(16.7%)	41(82%) & 27(84.4%)	9(18%) & 5(15.6%)
4. Do you think learning with other health care students would be difficult to manage?	17(56.7%) & 23(47.9%)	13(43.3%) & 25(52.1%)	26(52%) & 11(34.4%)	24(48%) & 21(65.6%)
5. Do you think patients will ultimately benefit in health and social care if students learn together.	17(56.7%) & 41(85.4%)	13(43.3%) & 7(14.6%)	33(66%) & 24(75%)	17(34%) & 8(25%)
6. Is it important to be taught communication skills with other health care students?	15(50%) & 35(72.9%)	15(50%) & 13(27.1%)	34(68%) & 15(46.9%)	16(32%) & 17(53.1%)
7. Is it important to be taught some of the communication skills that are related to patients' safety's for all health care disciplines together.	20(66.7%) & 41(85.4%)	10(33.3%) & 7(14.6%)	34(68%) & 27(84.4%)	16(32%) & 5(15.6%)
8. Are teamwork skills vital for all health care students?	21(70%) & 41(85.4%)	9(30%) & 7(14.6%)	42(84%) & 27(84.4%)	8(16%) & 5(15.6%)
9. Learning clinical skills together before qualification will improve the work environment.	15(50%) & 40(83.3%)	15(50%) & 8(16.7%)	30(60%) & 19(59.4%)	20(40%) & 13(40.6%)
10. Respecting other health care students is essential for IPE to be effective.	24(80%) & 43(89.6%)	6(20%) & 5(10.4%)	37(74%) & 24(75%)	13(26%) & 8(25%)
11. IPE for all health care disciplines is a waste of time.	24(80%) & 29(60.4%)	6(20%) & 19(39.6%)	37(74%) & 20(62.5%)	13(26%) & 12(37.5%)
12. It is not necessary for one health care discipline to learn together with other health care disciplines.	21(70%) & 30(62.5%)	9(30%) & 18(37.5%)	32(64%) & 21(65.6%)	18(36%) & 11(34.4%)
13. You would welcome the opportunity to learn clinical skills with other health care students.	19(63.3%) & 38(79.2%)	11(36.7%) & 10(20.8%)	26(52%) & 21(65.6%)	24(48%) & 11(34.4%)
14. IPE before qualification will help you to be a better team worker.	20(66.7%) & 45(93.8%)	10(33.3%) & 3(6.3%)	40(80%) & 22(68.8%)	10(20%) & 10(31.3%)
15. Do you think IPE in curriculum will improve your working efficiency during clinical practice and your professional career?	18(60%) & 45(93.8%)	12(40%) & 3(6.3%)	25(50%) & 24(75%)	25(50%) & 8(25%)

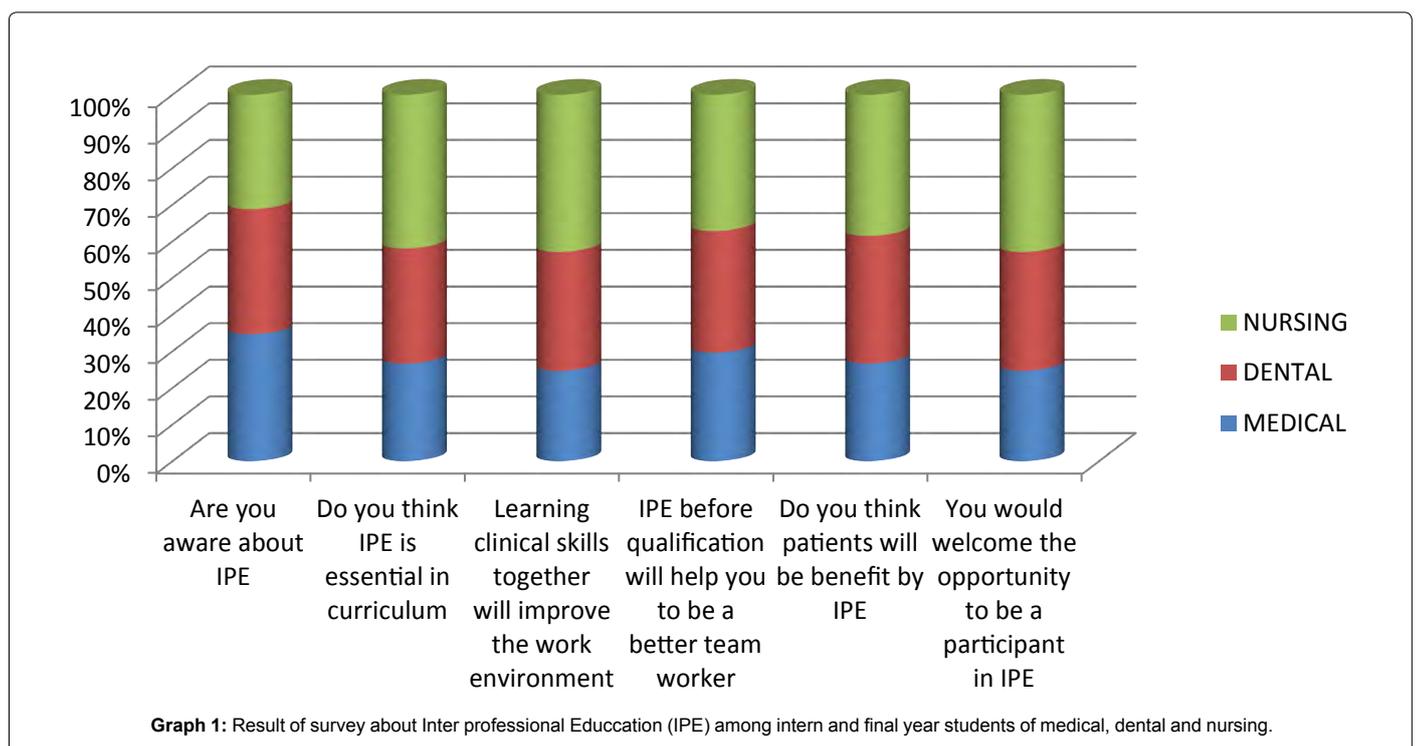
**Table 3:** Comparison within interns and final year between medical and dental professionals.

	Medical		Dental	
	Yes	No	Yes	No
	1. Are you aware about Inter-professional Education (IPE)	25(83.3%)	5(16.7%)	44(91.7%)
2. Do you think IPE is essential in curriculum?	22(73.3%)	8(26.7%)	40(83.3%)	8(16.7%)
3. Do you think that IPE is important during internship	26(86.7%)	4(13.3%)	40(83.3%)	8(16.7%)
4. Do you think learning with other health care students would be difficult to manage?	17(56.7%)	13(43.3%)	23(47.9%)	25(52.1%)
5. Do you think patients will ultimately benefit in health and social care if students learn together.	17(56.7%)	13(43.3%)	41(85.4%)	7(14.6%)
6. Is it important to be taught communication skills with other health care students?	15(50%)	15(50%)	35(72.9%)	13(27.1%)
7. Is it important to be taught some of the communication skills that are related to patients' safety's for all health care disciplines together.	20(66.7%)	10(33.3%)	41(85.4%)	7(14.6%)
8. Are teamwork skills vital for all health care students?	21(70%)	9(30%)	41(85.4%)	7(14.6%)
9. Learning clinical skills together before qualification will improve the work environment.	15(50%)	15(50%)	40(83.3%)	8(16.7%)
10. Respecting other health care students is essential for IPE to be effective.	24(80%)	6(20%)	43(89.6%)	5(10.4%)
11. IPE for all health care disciplines is a waste of time.	24(80%)	6(20%)	29(60.4%)	19(39.6%)
12. It is not necessary for one health care discipline to learn together with other health care disciplines.	21(70%)	9(30%)	30(62.5%)	18(37.5%)
13. You would welcome the opportunity to learn clinical skills with other health care students.	19(63.3%)	11(36.7%)	38(79.2%)	10(20.8%)
14. IPE before qualification will help you to be a better team worker.	20(66.7%)	10(33.3%)	45(93.8%)	3(6.3%)
15. Do you think IPE in curriculum will improve your working efficiency during clinical practice and your professional career?	18(60%)	12(40%)	45(93.8%)	3(6.3%)

**Table 4:** Comparison on proportions between professionals among Interns.

1.	Final year					
	Medical		Dental		Nursing	
	Yes	No	Yes	No	Yes	No
1. Are you aware about Inter-professional Education (IPE)	45(90%)	5(10%)	25(78.1%)	7(21.9%)	63(78.8%)	17(21.3%)
2. Do you think IPE is essential in curriculum?	29(58%)	21(42%)	20(62.5%)	12(37.5%)	80(100%)	0
3. Do you think that IPE is important during internship	41(82%)	9(18%)	27(84.4%)	5(15.6%)	79(98.8%)	1(1.3%)
4. Do you think learning with other health care students would be difficult to manage?	26(52%)	24(48%)	11(34.4%)	21(65.6%)	43(53.8%)	37(46.3%)
5. Do you think patients will ultimately benefit in health and social care if students learn together.	33(66%)	17(34%)	24(75%)	8(25%)	72(90%)	8(10%)
6. Is it important to be taught communication skills with other health care students?	34(68%)	16(32%)	15(46.9%)	17(53.1%)	78(97.5%)	2(2.5%)
7. Is it important to be taught some of the communication skills that are related to patients' safety's for all health care disciplines together.	34(68%)	16(32%)	27(84.4%)	5(15.6%)	79(98.8%)	1(1.3%)
8. Are teamwork skills vital for all health care students?	42(84%)	8(16%)	27(84.4%)	5(15.6%)	79(98.8%)	1(1.3%)
9. Learning clinical skills together before qualification will improve the work environment.	30(60%)	20(40%)	19(59.4%)	13(40.6%)	78(97.5%)	2(2.5%)
10. Respecting other health care students is essential for IPE to be effective.	37(74%)	13(26%)	24(75%)	8(25%)	77(96.3%)	3(3.8%)
11. IPE for all health care disciplines is a waste of time.	37(74%)	13(26%)	20(62.5%)	12(37.5%)	15(18.8%)	65(81.3%)
12. It is not necessary for one health care discipline to learn together with other health care disciplines.	32(64%)	18(36%)	21(65.6%)	11(34.4%)	26(32.5%)	54(67.5%)
13. You would welcome the opportunity to learn clinical skills with other health care students.	26(52%)	24(48%)	21(65.6%)	11(34.4%)	78(97.5%)	2(2.5%)
14. IPE before qualification will help you to be a better team worker.	40(80%)	10(20%)	22(68.8%)	10(31.3%)	75(93.8%)	5(6.3%)
15. Do you think IPE in curriculum will improve your working efficiency during clinical practice and your professional career?	25(50%)	25(50%)	24(75%)	8(25%)	80(100%)	0

Table 5: Comparison on proportions between professionals among final year students.



Graph 1: Result of survey about Inter professional Education (IPE) among intern and final year students of medical, dental and nursing.

were aware about inter professional Education and its necessity in total of 240 population from medical, dental and nursing only after explaining about the importance of IPE. According to a study by Fallatah et al. 75% responded that IPE is important and only 18.5% from medical, 10% from nursing state that IPE was waste of time [9]. According to this study, 63.7% of medical, 75% of dental and 100% of nursing students' states that IPE is necessary in curriculum after explanation and 20.4% from medical and dental students' states that it is not important in curriculum and 52.1% feels that IPE is a waste of time. According to a study by Fallatah et al. 24.8% strongly agree that patients will be benefited if the students from different health care professionals learn together. 8.6% feels that patients will not be benefited if the professionals learn together [9]. According to this study, 77.9% states that patients will be benefited in co-ordinated care and 22% feels that there is no benefit for the patients if the professionals are together. 73.4% of students welcome the opportunity to participate in IPE training and 15.3% were not interested. Based on this study, 75.8% welcome the opportunity to learn together with other professionals and 24.2% were not interested. 93.3% feels that team work skills are vital for all health care students [9]. In this study, only 87.5% students felt that team work will pay good and effective care for the patients.

Hence, Inter-professional Education programs that aim to improve good communication between health care professionals with patients. Hence, there is a need for Educational programs to improve the communication skills for effective health practices and attitude towards other professionals.

## Conclusion

This study showcases the importance of inter professional Education during final year and internship for the students of

medical, dental and nursing. Students are not fully familiar with inter professional Education, more awareness is required for them to be adept in this regard and to impart effective and proper treatment to their patients. The results of this study will be helpful for the health care schools to conduct more Education programs about Inter professional Education in the future. Though there was a mixed response in relation to the necessity of IPE, it was in favour of IPE. The importance of IPE in effective communication with patients is also mentioned. Students expressed interest in learning clinical skills alongside other health care disciplines.

## References

1. Centre for the Advancement of Inter Professional Education (CAIPE) (1997) Inter professional Education - a definition. London: CAIPE Bulletin 13: 19.
2. Vahey DC, Aiken LH, Sloane DM, Clarke SP, Vargas D (2004) Nurse Burn out and Patient Satisfaction. *Med Care* 42: 57-66.
3. Liakos J, Frigas A, Antypas K, Zikos D, Diomidous M, et al. (2008) Promoting inter professional Education in health sector within the European Interprofessional Education Network. *Int J Med Inform* 78: 43-47.
4. Mendez MJ, Armayor NC, Navarlaz MT, Wakefield A (2007) The potential advantages and disadvantages of introducing inter professional Education into the health care curricula in Spain. *Nurse Educ Today* 28: 327-336.
5. Cooper H, Carlisle C, Gibbs T, Watkins C (2001) Developing an evidence base for inter disciplinary learning: A systematic review. *J Adv Nurs* 35: 228-237.
6. Hall P, Weaver L (2001) Interdisciplinary Education and Teamwork: A Long and Winding Road. *Med Educ* 35: 867-875.
7. Nørgaard B, Ammentorp J, Kofoed P, Kyvik KO (2012) Training improves inter-collegial communication. *The clinical teacher* 9: 173-177.
8. Rafter ME, Pesun IJ, Herren M, Linfante JC, Mina M, et al. (2006) A Preliminary Survey of Inter professional Education. *J Dent Educ* 70: 417-427.
9. Fallatah HI, Jabbad R, Fallatah HK (2015) Inter professional Education as a Need: The Perception of Medical, Nursing Students and Graduates of Medical College at King Abdulaziz University. *Scientific research* 6: 248-254.