

Communication Skills Training Through an Inter Professional Education Initiative for Undergraduate Multi-Professions Students

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Abstract. Our aims were to teach multi-professions students, from Alzaeim Alazhari University, Sudan, to learn together and gain the knowledge, skills and attitude to work together. And to train them together to acquire the specific communication skill associated with "breaking bad news". **Methods:** A session of training of trainer was first organized. Senior students from the medicine, nursing, anaesthesia and midwifery colleges were invited to join voluntary in the IPE initiative. 36 multi professions students were selected and divided into 6 multi professions groups. Selected students attended one lecture and four sessions on the IPE and the roles and responsibility of the different professions. The participants learned and practiced six different scenarios of breaking bad news. The IPE was evaluated by administration of a pre and post questionnaires to determine the attitude of the participants to the IPE and towards the training of

communication skills within multi professions teams. **Results:** 30 multi professions students responded to the questionnaires (83.3%). The participants` responses showed that, they have gained knowledge, and become more oriented with their roles and responsibilities. The IPE training course on "breaking bad news" was accepted by all the multi professions students. The participants` overall change of attitude was significant. **Discussion:** The results showed that the implemented IPE initiative had positive effects on the attitude and perception of the undergraduate multi professions students; and that "Breaking bad news" training is possible and practicable within multi professions teams.

Keywords: Inter Professional Education; breaking bad news; undergraduate students; Sudan.

Introduction

Inter professional education (IPE) is a teaching and learning process that fosters collaborative work between two or more health care professionals. The IPE can be implemented when students from different professions learn with, from and about one another. (Freeth et al 2002) IPE is evoked by the WHO since 1988When different professionals work together during training, it will be easier for them to practice together to improve the standard of health care. (Freeth et al, 2002,Jill et al2014)The WHO defined IPE as " a process by which a group of students (or workers) from the health related occupations with different educational backgrounds learn together during certain periods of their education , with interaction as an important goal, to collaborate in providing promotive, preventive, curative, rehabilitative care and other health related services" (Freeth et al.2005) . The importance of IPE to medical education is that it offers an opportunity for the different health care students to learn how to work inter-professionally enabling them to develop the knowledge, skills and ability to practice collaboratively in the work place to enhance service delivery. The values of IPE include: improvement in communication, efficiency, cost effectiveness and patient centeredness of health care team. (Freeth et al 2002) The relationship between different health professionals during practice shows some misunderstandings. These misunderstandings affect the quality of patient care. Many studies revealed that there is communication failure, poor coordination and collaboration and fragmented care; all these failures will have serious impact on patient's care and safety. (Carpenter 1995, Jain et al 2012, Hammick et al 2007, Barr 1998, 2002,) As the relationship between the different health professionals plays an important role for delivering a high quality health care, an IPE programme is needed to improve communication and collaboration.

Students of different health professions hold the view that they are experts in their own fields. This notion would mean that the different health professions do not overlap. However, in the modern health care systems the professional boundaries become unclear and blurred. (Barr1998) These blurred boundaries and the unclear hierarchies and roles may lead to uncertainties and even to competitions. Early and ongoing IPE programme for health care students, during the undergraduate period is therefore necessary to improve

communication and help prevent uncertainties and competitions between health professionals during practice. (Carpenter 1995, Jain et al 2012, Hammick et al 2007, Barr 1998, 2002,Morison et al 2004)

Many initiatives and curricula were described and designed for implementing IPE for undergraduate health care students. A didactic programme, where students can learn team building skills, knowledge of profession and patient's centered care; nurse shadowing; training within simulated environment and community-based programme are examples.(Jain et al 2012, Barr 1998, Aston et al 2012, Luctkar et al 2010, Alinier et al 2008,Olenick et al 2011)

Students of different health professions have few opportunities to learn and practice together. Simulation offers an ideal environment for learning and practicing together in a safe environment and under controlled supervision. (Alinier et al 2008, Ker et al 2003)

Communication skills is a program required by all health care students and it can be learned in inter professional teams within a simulated environment.(Barr 1998, Jill et al 2014) "Breaking bad news" is a skill which is required by all health care professionals. "Breaking bad news" is one of the most difficult tasks that a member of a health care team has to do. It is associated with strong emotions, fear of bearing the responsibility and negative evaluations. (World Health Organization 2010) The way a health care professional, delivers bad news may have a serious impact on the relation between the health care professional and the patient. (Walter et al 2000) Teaching and training of the technique of breaking bad news improves this communication skill. The 6- point protocol (Garg et al 1997, Walter et al 2000) can be used for teaching the undergraduate health care students how to deliver bad news to patients and their families.

Aims and Objectives

The aims of our study were to teach different health care students to learn together and gain the knowledge, skills and attitude that can help them to work together. Another aim was to encourage the undergraduate students from these different health professions to learn and practice together the communication skill of "breaking bad news".

Specifically the study aims to:1- provide the students coming from different professional background with the knowledge and the skills to know their roles and responsibilities and the roles and responsibilities of other health professions and practice these roles collaboratively. 2-Break the barriers and misconceptions that prevent collaborative work of a team composed of different health professionals. 3- Encourage the different health care students to work in teams to gain the team-work and leadership skills. 4- Enable the participants from different undergraduate health care students to deal with difficult situations and share their skills and knowledge of breaking bad news to patients and 5- to evaluate the outcome of the IPE initiative.

Methods

This is a descriptive, cross sectional, university based study; conducted at Alzaiem Alazhari University (AAU) Khartoum Sudan, during Feb 2014–June 2014.

Ethical approval was obtained from the ethical committee of AAU.

At the beginning of the project a group of interested and motivated faculty members from the health sciences colleges of AAU, formed an Inter-professional education group (IPEG).The IPEG included members from the medical, nursing, anaesthesia and midwifery and public health colleges. The group discussed the feasibility of conducting an IPE initiative for the undergraduate students from the different health sciences colleges at AAU.

The first step was to organize training of trainer (TOT) workshops to train the faculty on how they can facilitate an IPE sessions. Four educational sessions (each of 2hours) were organized. 11 faculties participated in the TOT sessions.

The TOT sessions discussed:

1-IPE; its definition, requirements, benefits, skills and competencies gained and how to facilitate an IPE session. 2- Communications skills in relation to IPE. 3- Conflict management within IPE. 4- How to teach the skill of breaking bad news for a multi profession group of students. Each session of TOT was followed by active discussion, feed- back and reflections.

The second step included the means of inviting learners, establishing content, learning resources, teaching methods and selection of tools of evaluation of the IPE initiative.

Senior students from the medical, nursing, anaesthesia and midwifery were invited to join the IPEG to learn the communication skills of breaking bad news within an IPE initiative. Our theme for the IPE course was: "Working to learn together, Learning to work together".

12 medical students, 18 nursing students, 9 midwifery students and 6 anaesthesia students accept the invitation. The participation was voluntary, and all sessions were in the afternoons, to allow participants to attend their scheduled activities. A preliminary meeting was organized for all faculty and students of the IPEG. The aim of the meeting was to orient the participants with the aims and the objectives of the IPE initiative.

Thirty six multi professional students were selected, and divided in 6 multi-profession groups. Each group was formed of 2 medical students, 2 nursing students, one midwifery student and one anaesthesia student. Participants attended one interactive lecture about the IPE and four sessions discussing the roles of the nurse, the midwife, the anesthetist and the doctor, as well as two hours of discussion about breaking bad news within a multi-profession team. The leaders of the multi-profession student groups were 2 from the medical college 2 from the nurses and one from each of midwifery and anaesthesia. The

activities and practice of the multi-profession groups were supervised by the faculty.

Six different scenarios of breaking bad news were selected by the trained faculty and students. The students were instructed to learn and practice their scenarios under supervision of the faculty. Each multi-profession students group selected a simulator and trained him/her to participate during practice and at presentation. The scenarios were:

Scenario 1: - A 26- year old female, single, is discovered during examination to have diabetes mellitus (DM). She has a bad family history of DM, with relatives having mishaps. The IPE team has to inform the patient.

Scenario 2: - A 35- year old female, married with three children, is discovered on laboratory tests to be positive for HIV. The IPE team has to inform the patient.

Scenario 3: - A 38 -year old male has to do a surgical operation. Unfortunately he did not recover from anaesthesia. The IPE team has to inform his wife.

Scenario 4: - A 26- year old primigravida comes to the clinic. On examination is diagnosed "Intra uterine fetal death". The IPE team has to inform the patient.

Scenario 5: - A 30- year old male comes to the clinic. Diagnosis is carcinoma of the colon. The IPE team has to inform the patient.

Scenario 6: - A 50- year old female comes to the clinic complaining of a breast lump. Diagnosis was carcinoma of the breast. The IPE team has to inform the patient.

The scenarios of breaking bad news were presented during 3 sessions. All faculty and students were present during scenarios presentation. Active discussions and feedback followed each presentation.

A reflection session was organized at the end of the IPE course where each one of the students and faculty reflected his/her experience, what was good and what were the strengths and weaknesses of the educational experience.

The attitude of the multi-profession students to the IPE initiative was assessed by Arabic translation of the "Readiness for Inter Professional Learning Scale" (RIPLS) which was administered pre and post course. Another questionnaire was also administered at the end of the course to evaluate the learners` attitude towards the content using a 5-point scale (1=strongly disagree—5= strongly agree), the teaching methods and whether they benefited from the IPE course.

Certificates were distributed to all participants and simulators were offered financial incentives. Data from the RIPLS and the questionnaire for evaluation of the course was analysed for the descriptive statistics using SPSS as software.

Results

Out of the 36 multi professional students, 30 responded to the RIPLS (83.3%); 93.3% of them were females. The participants were 10 medical students, 10 nursing students and 5 students from each of anaesthesia and midwifery departments. The responses of the multi professional students to the first part (Team work & collaboration) of RIPLS are shown in table 1. Table 2, illustrates the responses to the second and third parts of RIPLS. There were an increasing percentage of participants who believe that shared IPE helped them to become

good team workers, and that shared IPE is helpful in clarifying patients' problems and in understanding own limitations. A good number of the multi professional students gained knowledge and more awareness about their roles and responsibilities and the roles and responsibilities of the other professions. The participants also became more oriented with their roles and responsibilities within the multi professional teams. Almost all the participants were aware of the importance of the teamwork. More students became convinced that communication skills learned within a multi professional group is acceptable and useful.

Table 1: The pre and post course participants' responses to the first part of "RIPLS" (Team work & collaboration)

No	Questions	Pre course (no=30) (%) mean sd			Post course(no=30) (%) mean sd		
		(%)	mean	sd	(%)	mean	sd
1	"Learning with other students helped me become a more effective member of a health care team"	97.3	4.64	0.53	100	4.70	0.46
2	"Patients would ultimately benefit if health care students work together to solve patient problem"	94.7	4.56	0.86	96.7	4.80	0.76
3	"Shared learning with other health care students will increase my ability to understand clinical problems."	40.5	4.32	0.62	93.3	4.65	0.62
4	"Learning with healthcare students before qualification would improve relationships after qualification."	83.7	4.13	0.91	83.4	4.26	0.82
5	"Communication skills should be learned with other health care students."	86.5	4.18	0.73	96.7	4.53	0.57
6	"Shared learning will help me to think positively about other professionals"	94.6	4.37	0.59	96.7	4.50	0.82
7	"For small-group learning to work, students need to trust and respect each other."	100	4.75	0.43	100	4.83	0.37
8	"Team-working skills are essential for all healthcare students to learn."	94.6	4.56	0.60	99.6	4.70	0.53
9	"Shared learning will help me to understand my own limitations."	75.6	3.97	0.98	90	4.46	0.68

Note: The % and mean represent the agreement of the students to the statements

Table 2: participants` responses to the second &third part of "RIPLS" (Negative professional identity and Roles and Responsibilities)

No	Questions	Pre course(no=30) % mean sd	Post course(no=30) % mean sd
10	"I do not want to waste my time learning with other healthcare students."	94.5 1.95 0.68	92.7 1.86 1.76
11	"It is not necessary for undergraduate healthcare students to learn together."	91.9 1.51 0.90	90 1.87 1.85
12	"Clinical problem-solving skills can only be learned with students from my own department."	56.7* 2.45 1.19 21.6‡	33* 2.41 2.01 96.6‡
13	"Shared learning with other healthcare students will help me to communicate better with patients and other professionals."	91.9 4.24 0.68	96.6 4.74 0.67
14	"I would welcome the opportunity to work on small-group projects with other healthcare students."	97.3 4.37 0.54	93.3 4.74 1.82
15	"Shared learning will help to clarify the nature of patient problems."	83.7 4.16 0.76	90 4.74 2.04
16	"Shared learning before qualification will help me become a better team worker."	67.5 4.51 0.86	96.6 4.70 0.52
17	"The function of nurses and Anesthetist is mainly to provide support for doctors."	37.8‡ 2.75 1.34 54*	36‡ 3.45 2.89 40*
18	"I am not sure what my professional role will be."	72.6* 2.13 1.15 18.9‡	80* 2.41 3.10 10‡
19	"I have to acquire much more knowledge and skills than other healthcare students."	83.8 4.00 0.94	80 4.51 2.81

Note: * =disagree; ‡ =agree.

Table 3: shows the comparison of the responses of the multi professional students to the RIPLS, and their significance.

Parts of RIPLS	Comparing groups	mean	s d	t value	P value	Sig
Team & work collaboration	Pre course (no=30)	5.53	1.94	0.49	0.62	Not sig
	Post course(no=30)	5.26	2.25			
Negative professional identity	Pre course (no=30)	17.13	2.22	1.60	0.11	Not sig
	Post course (no=30)	18.00	1.94			
Roles & responsibilities	Pre course (no=30)	8.93	2.06	0.92	0.10	Not sig
	Post course (no=30)	8.92	2.01			

sd = standard deviation; sig= significance

Table 4: The overall comparison of the multi professional students` attitude toward inter professional learning

RIPLS	Comparing groups	mean	sd	t value	P value	Sig
	Pre course (no=30)	39.56	3.96	2.02	0.04	Significant difference
	Post course (no=30)	41.36	2.48			

The questionnaire for evaluation of the IPE communication skills of breaking bad news was answered by 30 multi professional students 93.1% were females. The questionnaire was administered after completion of the course. Eighteen students (60%) rated the lectures as good, 20% as very good and 20% as excellent. The scenarios and their practices were rated by 53.3% of the students as very good and 23.3 as excellent. Groups` work was rated as excellent or very good by 43.3% for each and by 13.3% as good.

The evaluation of the IPE communication skills of breaking bad news shows that there is a strong level of agreement to 80% of the questions except, questions 2 and 3 in which the answers are still above the level of 3(neutral answer)(see index 1).

Discussion

Health care professionals have few opportunities to practice within multi professional teams. Inter professional simulation training is not a common educational opportunity at the undergraduate level especially in the developing countries. One aim of organizing inter professional simulation sessions for multi professions students is to give them the opportunity to observe each other and interact with all members of the multi professions team during practicing the scenarios.(Alinier et al 2008) The way we organized our simulated sessions allowed each multi professional student to take a different role during scenarios practice. He has the opportunity to be the leader of the team or a helper or an observer when other teams were practicing or presenting the scenario. This way

of implementing the IPE initiative leads to improving inter professional collaboration.

Our results demonstrated that the multi professions students became aware of the roles and responsibilities of their profession and the roles and responsibilities of other professions. They also gained the skills of working together in collaboration with other professions and the skill of leadership. The multi professions students gained knowledge and skills because they have opportunity to work together in a multi professional team and they observed and helped each other. The results showed that the implemented IPE initiative had positive effects on the multi professions students` perception and attitude to inter professional team work.

Breaking bad news is commonly associated with strong emotions, burden of responsibility and fear of negative evaluation. This stress may lead to reluctance to deliver the bad news. (Walter et al 2000, Amiel GE et al 2006) Bearing these in mind healthcare professionals may collaborate and support each other to break the bad news working together in a mutual respect and each within his/her role. The 6-point protocol can be used for teaching and training multi professional undergraduate students the technique of breaking bad news.

One objective of our study was to show that it's possible and practicable to offer a training course, in the technique of breaking bad news for the undergraduate multi professions students. Our results showed that such a course can be implemented within the available limited resources; as far as the administration and faculty are committed.

Assessment of our participants` attitude towards an IPE was conducted using an Arabic version of the validated scale (RIPLS). We used the scale because it is easy to administer and its three parts can investigate all the aspect of the learners' attitude toward IPE.(Desiree AL et al 2013, Page RL et al 2015) Although RIPLS has been validated in many studies, but recently Desiree reported it has a low discriminating ability for detecting the attitude of the multi-professions learners. They attributed this low discriminating ability of RIPLS to the mode of constructing the scale. (Desiree AL et al 2013) Another study showed that two of the three of RIPLS parts, namely profession identity and role and responsibilities, are less reliable for establishing the attitude of the multi profession learners toward IPE.(Lauffs M et al 2008)

The fact that more than 90% of our multi profession learners were females may has had impact on the result, because some studies reported that female students and nursing students are more positive to team work than males.(Wilhelmsson et al 2011)

During the reflection sessions the discussion highlighted that the multi professional training is important and feasible. However, there were some challenges: the voluntary participation, timetabling, that force the organizers to hold session in the afternoons and the commitments of the students. The difficulties which might be encountered during implementing an IPE initiative can be avoided by an online IPE course or more realistic and recommended by

integrating IPE in the curriculum of the undergraduate healthcare students. Further studies are warranted to investigate other modalities of IPE (community-based IPE or simulation-based training for our multi-profession undergraduate students)

Conclusion

Our study explored the individual teamwork competencies as it is perceived by inter-professional students to contribute to effective teamwork in breaking bad news. The findings of our study encourage and support the necessity for greater focus on inter-professional education within the healthcare sector, with special focusing on teamwork development approach. The "breaking bad news" teams' competencies suggested that team success is assured when the team members display a strong interest in implementing the team work by active discussions, regular presence and effective interpersonal and teamwork relationships. The findings of this study will encourage faculty to initiate focused teamwork training initiatives for undergraduate multi professions students.

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Index 1 : Illustrates the students` answers to the post course evaluation questionnaire on a 5- point scale (1= strongly disagree; 5= strongly agree)

No	Questions	Options	5-point scale	%	Mean
1	Breaking bad news is important topic and has to be learnt.	0	1	0	4.9
		0	2	0	
		0	3	0	
		3	4	10	
		27	5	90	
2	IPE with other health care students helps me to acquire communication skills in breaking bad news.	0		0	3.96
		0		0	
		5		16.7	
		6		20	
		19		63.3	
3	Breaking bad news should be learnt or taught as an inter professional course.	0		0	3.86
		0		0	
		5		16.7	
		9		30	
		16		53.3	
4	Working as a group made me more competent in breaking bad news.	0		0	4.00
		0		0	
		5		16.7	
		5		16.7	
		20		66.6	
5	Breaking bad news should be conveyed by the group that is treating the patient.	0	1	0	4.20
		1	2	3.3	
		1	3	3.3	
		14	4	46.7	
		14	5	46.7	
6	The team leader who breaks the bad news should be experienced unperturbed and have self restraint.	0		0	4.80
		0		0	
		0		0	
		6		20	
		24		80	
7	I gained useful knowledge in breaking bad news by taking part in an IPE course	0		0	4.56
		0		0	
		1		3.3	
		8		26.7	
		21		70	
8	I gained the skills of breaking bad news by taking part in an IPE.	0		0	4.20
		0		0	
		2		6.6	
		14		46.7	
		14		46.7	
9	Breaking bad news to the patient or his family will be easier if it is conveyed by a homogenous health care team.	0		0	4.70
		0		0	
		0		0	
		9		30	
		21		70	

10	IPE is a good method for gaining skills in leadership and group work.	0		0	4.10
		0		0	
		4		13.3	
		7		23.3	
		19		63.3	