

How can we learn to Work Together? Perceptions on Teaching / Learning Methods of Inter Professional Education (IPE) amongst Pre-Registration Students from Different Health Professions in Sri Lanka

ADP Perera¹, IM Karunathilake², A Olupeliyawa³, MH Ishara⁴

¹Faculty of Allied Health Sciences, General Sir John Kotelawala Defence University, Sri Lanka

^{2,3,4}Medical Education Development and Research Centre (MEDARC)

Faculty of Medicine, University of Colombo,

Sri Lanka

¹dperera85@yahoo.com, ²karunathilake@hotmail.com, ³asela_o@yahoo.com, ⁴isharamh@yahoo.com

Abstract— *Inter-professional education (IPE) is important in developing good working relationships between different health professionals. One of the key determinants of successful IPE is identifying the teaching / learning methods that could be effectively employed in IPE. The aim of this research was to explore perceptions on teaching / learning methods of IPE among pre registration students in different health professions in Sri Lanka. A cross sectional study was conducted with the students who have had prior clinical training for a period of 1 year (as they would have experienced inter-professional practice and inter-professional learning opportunities by then), from 8 health professional groups i.e. Medicine, Physiotherapy, Nursing diploma, Nursing degree, Medical Laboratory Sciences (MLS), Pharmacy, Audiology, speech & language therapy, at different educational institutions. A total of 686 students were invited to complete a self-administered questionnaire, and we received a high response rate of 84.83%. A variety of teaching/learning methods have been discussed in IPE literature including lectures, demonstrations of procedures, small group discussions, role-plays/ simulations, ward rounds, and work-based learning. Students rated their perceived effectiveness of these methods for IPE. The data was entered and analyzed using SPSS. ANOVA and Scheffe post-hoc test was used to compare the responses of different health professions groups. All student groups identified all methods as 'somewhat effective'. However, all groups rated clinical teaching methods higher than classroom-based methods. Students perceived that ward rounds and work-based tasks in wards are 'effective to a large extent' for achieving the aims of IPE while lectures were rated the lowest. Perceptions on classroom-based methods were more varied (F statistic>20)*

than on clinical teaching methods (F statistic<10). Medical, MLS and audiology students rated low values for classroom-based methods compared to others, while all groups rated higher values for ward-based methods. This study suggests some focused approaches for IPE in Sri Lanka, including the need for focused clinical training.

Keywords— Inter professional education,

I. INTRODUCTION

Interprofessional education, which is designed to promote teamwork among different health professions, is described as occurring when "... two or more professions learn with, from and about each other to improve collaboration and the quality of care" (CAIPE, 2002). The World Health Organization (WHO) first acknowledged interprofessional education (IPE) as an important aspect of healthcare in 1978 and noted that there is an increased trend towards multi-professional teamwork in healthcare supported by an increasing body of evidence (WHO, 1988). The introduction of IPE into the training of healthcare professionals has become an important object for governments and universities internationally. In the UK, the government supports interprofessional education in both post-qualification and undergraduate settings (Department of Health (London, 2000).

Interprofessional education is thought to be important in helping to develop good working relationships between different professionals by promoting positive interprofessional attitudes and behaviors (CAIPE, 2002). It is proposed that IPE is most effective in promoting teamwork of professionals who have a clear sense of their own

professional identity and have experiences to share (Funnell, 1995; Pirie, 1999). Pre- and post-intervention studies reported a range of benefits from interprofessional education programmes (Horsburgh et al., 2001; Fineberg et al., 2004; Curran et al., 2005). However, the information on the development of students' attitudes towards IPE during their training period, and the long term benefits of IPE programmes is rather limited (Carpenter et al., 2006). Factors that influence perceptions towards interprofessional learning include conflicting power relationships arising from differences in culture, philosophy, educational requirements, status and backgrounds of health care disciplines; different structures within health and social care organizations, and competing priorities and agendas (Vanclay, 1997; SCOPME, 1997). There are several teaching / learning methods that may be used for inter-professional learning. However, the effectiveness of these methods for achieving the aims of interprofessional learning may be different. The literature found that medical students rated low values for classed based activities. The medical professionals are reluctant to participate in certain educational activities, such as role play, small-group problem-based learning and practicum experiences, which have been shown to have an impact on their behavior (MacDonald N.1996) but it is suggested that without these interactive learning tools, practising IPE would be difficult. Several studies had shown PBL is a structured educational activity, usually employing case presentations as the stimulus to learning and this approach which helps students learn to listen to each other and to collaborate as they work to resolve the problems (Wahlström O et al. 1997). Therefore it would be valuable to investigate the perception of Teaching / Learning methods of Inter Professional Education (IPE) amongst pre-registration students in different health professions in Sri Lanka. This information will be useful to understand the issues impacting on health professional teams and the needs and challenges for inter-professional learning.

II. AIM

To explore the perception of teaching /learning methods of Inter Professional Education (IPE) amongst pre-registration students in different health professions in Sri Lanka.

III. METHODS

A cross sectional study was conducted with the students who have had prior clinical training for a period of 1 year, from 8 health professional groups (Medical, Physiotherapy, Nursing, Nursing degree, MLS, Pharmacy, Audiology , speech & language therapy) at different health educational institutions. A total of 686 students were invited to complete the self-administered questionnaire which included the list of teaching / learning methods. The data was entered and analyzed in the SPSS. The part of the data was analyzed using descriptive statistics. Analytical statistical methods were used to compare responses of different groups. Ethical clearance was obtained from the Ethics Review Committee, Faculty of Medicine, University of Colombo.

IV. RESULTS AND ANALYSIS

A total of 686 students were invited to participate in the study, of which n = 582 filled in the questionnaire, giving an overall response rate of 84.83%. 196 medical students were invited and 157 responded (80.1%), 225 nursing students were invited and 180 (80%) responded 60 physiotherapy students were invited and 56 responded (93.3%) , 60 pharmacy students were invited and 54 responded (90.0%) , 60 nursing degree students were invited and 46 responded (76.6%), 30 Medical laboratory students were invited and 27 responded (90.0%) , 25 Audiology students were invited and 18 responded (72%) and 60 speech and language therapy were invited and 42 responded (70.0%). Approximately 73.02% of respondents were female while 24.91% were male.

Different teaching / learning methods that may be used for IP learning:(Table 1)

There are several teaching / learning methods that may be used for interprofessional learning. However, the effectiveness of these methods for achieving the aims of interprofessional learning may be different. In this study, students rated differently how effectively these methods can be used for IPE. F2, F3, F4 & F6 had higher mean scores while F4 was the highest. "Lectures" was the lowest rated teaching / learning method. Medical students rated low values for classed based teaching learning methods (F1, F2, F3, F5); and higher values for wards based methods (F4,

F6). Nursing, Physiotherapy Speech therapy and pharmacy students rated higher values for most of the teaching methods while Audiology and MLS Students suggested several other teaching / learning methods can be used for the IPE.

- Workshops and presentations
- Community based field trips
- Wards classes
- Problem based learning (PBL)
- Wards rounds with all health professional students
- Group discussions, seminars in hospital settings

students rated low values similarly for some methods.

- F1:** Lectures
- F2:** Demonstration and/ or practice of procedural skills
- F3:** Small group discussions
- F4:** Work-based tasks at ward e.g. discussing a treatment plan with a different health professional
- F5:** Role plays and simulation-based learning sessions
- F6:** Integrated ward rounds

Table 1: Different teaching / learning methods that may be used for IP learning:

	Medicine	Nursing	Physio	Pharmacy	Nursin-degree	MLS	Audiology	Speech-therapy	Total
F1	2.08	3.23	2.69	2.92	2.83	2.48	2.65	2.95	2.73
F2	2.85	3.79	3.43	3.43	3.59	3.04	3.00	3.52	3.37
F3	2.52	3.51	3.28	3.36	3.61	2.85	3.06	3.13	3.14
F4	3.21	3.52	3.65	3.65	3.72	3.19	3.47	3.63	3.47
F5	2.61	2.98	3.07	3.17	3.50	2.81	3.00	3.10	2.95
F6	3.11	3.36	3.53	3.55	3.52	3.04	2.94	3.47	3.32

V. DISCUSSION

Health professional students' rated higher values for wards based teaching activities and low rates for classed based teaching activities. Medical students rated low values for classed based activities. Similar findings were shown by MacDonald; that medical professionals are reluctant to participate in certain educational activities, such as role play, small-group problem-based learning and practicum experiences, which have been shown to have an impact on their behavior (MacDonald N.1996) but it is suggested that without these interactive learning tools, practising IPE would be difficult. Most students in my study rated traditional lectures are less important to improve IPE activities and problem-based learning (PBL) was suggested to improve IPE. Several studies had shown PBL is a structured educational activity, usually employing case presentations as the stimulus to learning and this approach which helps students learn to listen to each other and to collaborate as they work to resolve the problems (Wahlström O et al. 1997). PBL has been introduced into IPE from medical education because it is well established in

educational institutions and also it can be used as the first choice of interprofessional learning method. The potency of PBL in professional and interprofessionanl learning is well testified. (Barre et al 2005). Howkins & Bray 2007 had shown that good interprofessional teaching method is 'Facilitation'. He emphasized that the facilitator provides appropriate learning resources and create an environment for effective interprofessionanl education. The effective facilitator leads to collaborative learning and the learners are the most important resources.

VI. CONCLUSION

All student groups identified all methods as 'somewhat effective'. However, all groups rated clinical teaching methods higher than classroom-based methods. Students perceived that ward rounds and work-based tasks in wards are 'effective to a large extent' for achieving the aims of IPE while lectures were rated the lowest. It is suggested that without above interactive learning tools, practising IPE would be difficult.

Medical, MLS and audiology students rated low values for classroom-based methods compared to others, while all groups rated higher values for ward-based methods. This study indicates important considerations in customizing IPE experiences to the Sri Lankan Health Context and that certain focused approaches need to be developed for IPE in Sri Lanka.

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BIOGRAPHY OF AUTHORS



¹Dilani Perera is a Lecturer (Probationary) Department of Basic Sciences, Faculty of Allied Health Sciences, General Sir John Kotelawala Defence University, Sri Lanka. Her research interests include Inter professional Education, Web based learning and Sport related injuries and rehabilitation.



²Dr. Indika Karunathilake is the Director of Medical Education Development And Research Centre (MEDARC), Faculty of Medicine, University of Colombo, Sri Lanka. He is also a Senior Lecturer in Medical Education at the University of Colombo. Dr. Karunathilake received his training in Medical Education at the Centre for Medical Education, University of Dundee, Scotland, where he obtained a Postgraduate Diploma and subsequently a Masters Degree in Medical Education. Dr. Karunathilake has conducted extensive research and authored many publications in medical education. His research interests include assessment, e-learning and curriculum development. He has been a resource person in Medical Education for many national, regional and international forums.



³Dr. Asela Olupeliyawa graduated from the Faculty of Medicine, Colombo in 2005 and worked as a Demonstrator in Medical Education at MEDARC (Medical Education Development And Research Centre), Faculty of Medicine, Colombo. Following his internship at the Sri Jayawardenepura General Hospital, he joined MEDARC as a Probationary Lecturer in Medical Education in 2008. He completed a Postgraduate Certificate in Medical Education at the University of Dundee, UK in 2010. He is currently completing his PhD at the University of New South Wales, Australia, on how workplace-based assessment among medical students facilitates the learning of collaborative competencies for internship. He has published medical education research in several international peer reviewed journals and has extensive experience in small group facilitation at the Universities of Colombo and New South Wales.



⁴Dr. MH Ishara is a Research Assistant, at MEDARC (Medical Education Development And Research Centre), Faculty of Medicine, University of Colombo, Sri Lanka.