

# The MAGPIE model: An interprofessional learning opportunity for therapy students

**Alison Warren<sup>1</sup>, Ann Taylor<sup>2</sup>,  
Mairead Cahill<sup>3</sup>, and Marie O'Donnell<sup>4</sup>**

**Abstract:** Inter Professional Education (IPE) is not commonplace within Ireland. This paper presents the development and practical application of an IPE placement experience initiated by the University of Limerick. Several factors contributed to its development, including the establishment of posts based within several universities and the health service specifically to facilitate placement education. The MAGPIE model (Meet, Assess, Goal-Set, Plan, Implement and Evaluate) was used as a platform for the case-based IPE sessions involving Occupational Therapy and Physiotherapy students. Each student experienced 10.5 hours of discussion-based inter-professional activity within a placement and presented an inter-professional case study. The IPE experience was evaluated via focus groups involving students, practice educators and placement facilitators. Strengths of the experience included increased motivation, improved team working skills and development of a greater understanding of professional roles. Recommendations to enhance future case-based IPE sessions are identified.

**Keywords:** interprofessional education; therapy students; case-based placements

1. Regional Placement Facilitator in Occupational Therapy
2. Senior Lecturer in Physiotherapy
3. Practice Education Coordinator in Occupational Therapy
4. Regional Placement Facilitator in Physiotherapy

**Address for correspondence:** Alison Warren, Dept of Clinical Therapies, Health Sciences Building, University of Limerick, Ireland. [Alison.warren@ul.ie](mailto:Alison.warren@ul.ie)

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## **Introduction**

Health and Social Care professionals work in environments which require inter-professional collaboration therefore inter-professional working should be mirrored in student education, especially during placements.

IPE is limited within the Republic of Ireland, (Ryan, 2010; Finucane & Kellett, 2007). While organisation and delivery of healthcare in Ireland has evolved during the last decade, IPE has yet to become a consistent feature of the academic or clinical placement facets of health care curricula. However, professional accrediting bodies are increasingly requiring evidence that IPE is included within pre-qualification health care programmes on the premise it will further collaborative practice and improve health care outcomes.

Recently, Placement Facilitator (PF) posts in Occupational Therapy, Physiotherapy and Speech and Language Therapy were created within the health care system and key Irish Universities to increase the quality and capacity of therapy practice education within Ireland. These roles were created by the Health Service Executive (HSE) following the Bacon Report which advocated for an increase in Occupational Therapy, Physiotherapy and Speech and Language Therapy programmes (Bacon, 2001). This led to a dramatic increase in the need for therapy placement sites. Part of the role of the PF is to develop and implement innovative practice education models and PFs provide the link between the University and the health and social care sites. Within these settings students are placed with a practice educator who has the direct responsibility for facilitating the education of the student. The creation of these PF posts has facilitated the exploration of introducing IPE and other placement models within the practice setting. This IPE project was initiated by PFs from the three professions at the University of Limerick with a keen interest in IPE.

This project implemented and evaluated the MAGPIE framework (Meet, Assess, Goal, Set, Plan, Implement and Evaluate) for inter-professional case based teaching (Queensland Health, 2008).

## **Review of the literature**

IPE occurs 'when two or more professions learn with, from and about each other to improve collaboration and the quality of care' (Centre for the Advancement of Interprofessional Education, 2002). It is advocated by the

World Health Organisation (WHO) (WHO, 2010) as a method of promoting collaborative practice in healthcare. The use of IPE initiatives in practice education are recommended for the preparation of competent healthcare graduates who are capable of working collaboratively with complex client needs in future healthcare settings (WHO, 2010). The WHO (2010) highlighted a myriad of positive consequences of IPE and these included the impact on patient care, improved patient safety, reduced number of medical errors, increased job satisfaction and positive influences on organisational change. Consequently this approach to healthcare education has been acknowledged and funded worldwide (Young et al., 2007; WHO, 2010).

It has been suggested that all health care students should experience shared learning as part of their preparation for professional practice (Lidskog et al., 2009). How students should best experience this approach is contentious. Findings from previous systematic reviews (Reeves, et al., 2010; Hammick, et al., 2007) suggest that pre-qualification IPE can positively impact on students' attitudes and understanding of collaboration and team working.

Provision of pre-qualification practice-based inter-professional placements offer students the opportunity to develop an understanding of the different professional roles that exist within practice (Takahashi et al., 2010). Some studies suggest that maximising inter-professional learning opportunities during placements may positively impact practice (Salvatori et al., 2007). The scheduling of IPE placements however requires a significant amount of organisation and collaboration (Barr et al., 2005). Aligning placement schedules to facilitate participation of a variety of professions can be challenging when introducing IPE into clinical placements (Nisbet et al., 2008). Reeves et al. (2007) list imbalances in student numbers and timetabling difficulties as internal inhibitors for IPE in healthcare settings. Some external inhibitors to the development of IPE include the number of professional bodies involved in health-care programmes and their unsynchronised validation cycles.

Over the past ten years a number of innovative IPE placements have been developed, including a Clinical Education Ward (Ponzer et al., 2004); a Rural Inter-professional Education (RIPE) project (Stone, 2006); an Interdisciplinary Student Placement (ISP) model in Community Rehabilitation (Queensland-Health, 2008) and the Leicester Model of Inter-professional Education (Anderson & Lennox, 2009). Despite the methodological difficulties inherent in evaluation and delivery of IPE placement based initiatives, these studies highlight that it can enhance

collaboration and team working within placement settings.

This paper describes a pilot IPE project implemented by the PF's that will inform the future development of IPE in practice education.

## **MAGPIE model**

A key aspect of the project is the use of the MAGPIE model to facilitate IPE (Queensland Health, 2008). This is an interdisciplinary case management process, based around the International Classification of Functioning Disability and Health (ICF) (WHO, 2001) which students use in working through case studies. The ICF is an international tool that assists in the understanding of human functioning and disability for clinical, research and policy development. Previous use of the ICF in inter-professional learning within the clinical setting has demonstrated that it can aid communication, structure service provision, clarify team roles and demonstrate clinical reasoning, and has been advocated as a framework that can promote inter-professional dialogue and client centred practice (Allan et al., 2006, Stephenson & Richardson, 2008).

The MAGPIE model evolved from a community rehabilitation workforce project, a Queensland Health funded project based on the expectation that the workforce would need to be redesigned to manage the changes in health needs leading to more team delivery in the community. This project aimed to equip the future workforce (students) and current workforce (Allied Health Professionals and assistants) with the necessary community rehabilitation competencies for interprofessional working (Kendall, 2011).

The MAGPIE model was developed following a study to identify interprofessional competencies that underpin community rehabilitation (Disability and Rehabilitation Research Unit, 2006; Kendall, 2011). Ten core competencies were developed, including frameworks of understanding which recommended the use of recognised models and frameworks to underpin practice, also combined with a holistic focus. The ICF fitted well with these competencies and has accessible language therefore acting as a boundary framework to facilitate communication between professionals. The MAGPIE model is underpinned by the principles of holistic care, interprofessional working and client centred goal setting.

The MAGPIE model, a case based model involved learning tasks

undertaken by students who participated in the Interdisciplinary Student Placement in Community Rehabilitation in Queensland, Australia from 2005-2008. It has been used with a variety of health care professionals during placements to promote interdisciplinary working.

The stages of the model are: Meet, Assess, Goal- set, Plan, Implement and Evaluate. The Meet stage is the initial contact with the client and includes establishing rapport, identifying and addressing transcultural issues, explanation of the available services, rights and responsibilities including complaints procedures, consent and observation of the home environment. The Assessment stage is based around the ICF domains and includes exploring the biopsychosocial impacts of illness/injury factors, impairment to body structures and functions, activity limitations, participation restrictions, and personal and environmental factors. The Goal- setting stage is a collaborative process and focuses on short, long term and family goals and or needs. Having identified the goals, the Planning stage involves the collaborative analysis of facilitators and barriers to goal achievement, and devising strategies to address these. These are further explored in the Implementation stage which may include discipline specific assessment and intervention from a range of professionals, case management intervention, advocacy (individual or systems) self management of chronic disease, referral to other services and discharge planning. The Evaluation stage involves addressing client goals using quantitative and qualitative outcome measures. These include global measures of change in domains of Quality of Life, activity participation and environment.

## **Outline of the project**

The IPE case based project originated as a development to provide quality placement opportunities for therapy students. Drivers behind the development of the project included the need to increase the capacity and quality of practice placements and the interest in IPE from the PFs in Occupational Therapy, Physiotherapy and Speech & Language Therapy. It was hoped that by introducing an innovative project into the practice setting with support from the university, practice educators would be more willing to facilitate student placements.

### **Aims of the project;**

1. To improve interprofessional communication and team working skills in both students and therapists.
2. To informally evaluate the project, thereby improving the process for future students and practice educators.
3. To create a sustainable IPE project that would be facilitated by the PFs in the interim prior to practice educators assuming the facilitation role.

It was hoped that students would learn with, from and about each other through; working with students from other therapy professions while focusing on a particular client. Students were encouraged to share ideas, information and work together to produce a final presentation related to the client. The PFs would also model the interprofessional working while facilitating the case based sessions and students may have the opportunity to observe therapists, that is their PEs working interprofessionally. At the current time, health care teams do not always have a range of health professionals and some professions still practice in a uniprofessional way.

Initiating the project required commitment from the practice educators, students and placement facilitators. Dates needed to be identified when the three therapy professions were concurrently on placement with a minimum overlap of three weeks and maximum of eight weeks. Once dates were highlighted, sites within a 70 km radius of the university were targeted as a potential pilot site and as later research sites for the project. This distance was chosen due to the high level of commitment required from the PFs in implementing and supporting the project.

The project involved students at the placement site participating in case-based discussion sessions concerning one of their clients, which was facilitated by the PFs from the University of Limerick. The sessions occurred once a week for three weeks, lasting half a day, and informed subsequent interventions completed by the students with clients. In the final week the students presented their case from an inter-professional perspective to members of the multidisciplinary team.

### **Commitment from stakeholders**

The commitment from practice educators involved attendance at an initial

presentation by the PFs at the site, identification of a lead practice educator, knowledge of the IPE project handbook, reviewing the ICF and appropriate assessments in the site. They were also responsible for the identification of a client/patient who would be the focus of the case-based sessions and ensuring the students met the client/patient before the first session, attended a 30 minute handover at the end of the student IPE sessions and encouraged all team members to attend the student inter-professional presentation.

The commitment from the therapy students involved reading the IPE project handbook and incorporating the project into their learning contract for the placement. They were also required to review the ICF and appropriate assessments used at the site. Students worked with the client/patient between IPE sessions, ideally worked alongside the other professions with the client/patient, attended three half day discussion sessions with students and PFs and delivered an inter-professional case-based presentation.

The project was facilitated in one pilot site and three subsequent research sites. Sites included paediatric settings, an elderly rehabilitation hospital and a community rehabilitation team. In each setting the practice educators worked directly with the students of their own discipline on a 1:1 or 2:1 model. Unfortunately each IPE project only involved students from two professions working together due to placement changes. PFs from all of the three professions were involved in facilitating the discussion sessions.

## **Session contents**

The three session plans are outlined in table 1. Each session commenced with a warm up activity. In the first session this was introductions and in the subsequent weeks it was an opportunity to state one thing that was learnt from the previous IPE session. Each session finished with a clarification of the action plan for the next week. At the end of each session, client/patient's records were updated by the students under the supervision of the practice educators to incorporate IPE interventions. After the final session, the PFs met with the practice educators to ensure that the student performance assessment contained feedback on their participation within this project.

Table 1  
Outline of the three MAGPIE sessions

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**Session 1: Meet and Assess**

<p><i>Learning outcomes</i></p> <ul style="list-style-type: none"><li>• For students to gain an understanding of the purpose and process of the IPE project.</li><li>• For students to become familiar with the ICF and MAGPIE models.</li><li>• For students to discuss the client narrative in order to commence unidisciplinary and interdisciplinary assessments.</li></ul>
<p><i>Main section</i></p> <p>IPE project - purpose, process and practicalities.</p> <p>ICF- an interactive presentation to be given to the students.</p> <p>MAGPIE model- an interactive presentation to be given to the students.</p> <p>Client narrative - share any contact with the client or their notes in order to commence the assessments.</p> <p>Clarification of the assessments to be undertaken during the next week. Students to be given an opportunity to discuss or role play an assessment.</p>

**Session 2: Assess, Goal Set & Plan**

<p><i>Learning outcomes</i></p> <ul style="list-style-type: none"><li>• For students to share and discuss the results of assessments.</li><li>• For students to set interdisciplinary and unidisciplinary goals.</li><li>• For students to draft an intervention plan to be discussed with the practice educator and client.</li></ul>
<p><i>Main section</i></p> <p><i>Assessments</i> - all to share the results of any completed assessments, identify areas of impairment, limitation and restriction using the ICF as a framework.</p> <p><i>Review</i> of environmental and personal factors.</p> <p><i>Goals Set</i> - provisional goals to be set, initially unidisciplinary followed by inter-disciplinary.</p> <p><i>Intervention plan</i> - ideas to be prepared for discussion with practice educator and client.</p>



### Session 3: Implement & Evaluate

*Learning outcomes*

- For students to share and discuss the intervention undertaken with the client during the week.
- For students to develop methods for evaluating the intervention with the client from both a unidisciplinary and interdisciplinary perspective.
- For students to complete the inter-professional presentation using the ICF Framework.

*Main section*

*Intervention* - discuss and reflect interventions completed during the week.

*Evaluation* - discuss and develop methods of measuring outcomes from the perspective of the client, therapist, and family and health service.

*Presentation* - Joint presentation to be completed by the students using the ICF and MAGPIE framework to multi-disciplinary team. PFs and practice educators to support students and facilitate discussion.

## Evaluation of the project

As this was a new initiative, the placement facilitators acquired funding to evaluate the implementation of the project. The evaluation, following informed consent, involved focus groups to provide an opportunity to reflect on the experience of taking part in the project. The full evaluation is available from the author.

Following the pilot study, three separate IPE projects were conducted and contributed to the evaluation. These involved four Physiotherapy and four Occupational Therapy students, three Physiotherapy and four Occupational Therapy practice educators, and one practice facilitator from Physiotherapy, Occupational Therapy, and Speech and Language Therapy.

A total of five focus groups were conducted: two with practice educators, two with students and one with PF's. All stakeholders involved in the three IPE projects were invited to participate. One student declined due to lack of time. Three practice educators were unable to attend the focus groups and two contributed to the data set by answering the focus group questions by email.

The findings indicated that overall, the project enhanced the practice education experience for all involved. Three key themes emerged from the

data analysis; IPE as a motivating experience, IPE enhancing the depth of learning and clarity of expectations.

The weekly IPE sessions were motivating due to an increase in collaboration and communication between professionals, the client-centred focus on goals, and the sense of being involved in a novel project. Deep levels of learning were observed by the practice educators and placement facilitators within a relatively short period of time by students reflecting and critiquing their interventions. All students reported they developed team working skills by participating in the project with a shared client and a greater understanding of each other roles. Practice educators reported on the positive impact of the project on all involved and themselves as individual learners.

All commented that the student presentation did not capture the amount or complexity of the inter-professional learning experienced during this project. For some students the overall duration of the IPE project was too short and more time was required to consolidate and deepen learning. A practice educator commented that despite the short duration a positive impact was visible in student interactions. A practice educator stated that this model of case-based IPE can be completed by students at any stage in a professional programme.

The students' expectation of what inter-professional working and education involved was different to what they observed in their practice sites. In some sites inter-professional working was evident. However, some students witnessed professionals working alongside each other in parallel. The students found it difficult to balance time to work on the project with other demands.

## **Summary**

The use of the MAGPIE framework originating from an Australian community rehabilitation health context has transferred in to an Irish context. This could be due to Ireland having a community focus to healthcare practice. As well as promoting team working and enhancing communication it gave an opportunity to engage in client centred practice.

## Future plans

The IPE project was received positively by the students, PEs and PFs but there were many areas for improvement. These linked mainly to the student presentation and future plans. The presentation received feedback from all stakeholders and it was lengthy to prepare and was not necessarily considered the best way to demonstrate evidence of inter-professional learning. Presentations skills may vary between students and guidance may be required. A reflective activity for the students will be considered for future placements.

The IPE experience would be enhanced by increasing the number of sessions or spacing them out over more weeks of the placement. The sessions could be split between times with facilitators and also include time for the students to work together, potentially with the client.

When reflecting on the use of the MAGPIE model, the PFs noted that students should be encouraged to work together from the outset of the contact with the case and not be drawn too quickly into uniprofessional assessments and interventions.

PFs aligned to the University of Limerick have implemented the model in further placement sites additionally it has been used to facilitate a case-based Inter-professional session within the University. Consideration needs to be given to the sustainability of the project and whether the facilitation can be transferred to practice educators within placement sites in the future.

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