COMMITTEE FOR THE ADVANCEMENT OF LEARNING AND TEACHING:

Final Report on University Teaching Development Grant

WEB-BASED REPORT

Project title

Interprofessional education for dietetic, medical, physiotherapy, and radiation therapy students with a focus on long-term condition management education.

Project team

Karen Coleman, Ben Darlow, Eileen McKinlay, Sarah Donovan, Louise Beckingsale, Peter Gallagher, Ben Gray, Hazel Neser, Meredith Perry, James Stanley, Sue Pullon

Snapshot of the case

Aims

This project aimed to evaluate if an interprofessional education programme focused on long-term conditions' management changed students' attitudes toward interprofessional teams and interprofessional learning, and self-perceived ability to participate in interprofessional teams or manage long-term conditions. It also aimed to explore student perceptions of the interprofessional education programme and radiation therapy students experience of joining an established programme.

Methods

A stratified quasi-randomised controlled trial evaluated changes in student attitudes and perceptions. Focus groups explored student perceptions of the programme

Key findings

There were positive changes in student attitudes toward interprofessional teams and interprofessional learning, as well as their self-perceived ability to participate in interprofessional teams and manage long-term conditions. Students perceived that the programme was a valuable learning experience and relevant to their future careers. Several suggestions were made to improve the programme in future, these included better introductions to each discipline so that each is understood and valued.

Introduction

Collaborative interprofessional practice is an important means of providing effective care to people with complex health problems. Interprofessional education (IPE) is assumed to enhance interprofessional practice, however, there is insufficient evidence to demonstrate its efficacy.

Methods

Eighty three pre-registration students from the disciplines of dietetics (n = 9), medicine (n = 36), physiotherapy (n = 12), and radiation therapy (n = 26) were allocated to either an intervention group (n = 41) who received the IPE program or a control group (n = 42) who continued with their usual discipline specific curriculum. Outcome measures were the Attitudes Toward Health Care Teams Scale (ATHCTS), Readiness for Interprofessional Learning Scale (RIPLS), the Team Skills Scale (TSS), and the Long-Term Condition Management Scale (LTCMS). Analysis of covariance compared mean post-intervention scale scores adjusted for baseline scores.

Thirty-five (83%) of the 41 students who participated in the IPE programme attended one of the two interdisciplinary focus groups. All 13 students from radiation therapy also attended a unidisciplinary focus group. Recordings of these focus groups were transcribed and analysed by two researchers using the framework of Thematic Analysis.

Key findings

Mean post-intervention attitude scores (all on a five-point scale) were significantly higher in the intervention group than the control group for all scales. The mean difference for the ATHCTS was 0.17 (95%CI 0.05 to 0.30; $p = 0.006$), for the RIPLS was 0.30 (95%CI 0.16 to 0.43; $p < 0.001$), for the TSS was 0.71 (95%CI 0.49 to 0.92; $p < 0.001$), and for the LTCMS was 0.75 (95%CI 0.56 to 0.94; $p < 0.001$). The mean effect of the intervention was similar for students from the two larger disciplinary sub-groups of medicine and radiation therapy.

Participants had positive perceptions of the programme which they considered was very relevant to their future professional careers. They were surprised to learn that they shared a lot of common ground, and felt that the programme would remove barriers to future collaboration and improve interdisciplinary communication. The use of a purpose-developed video resource in the introductory workshop, and patient home-visits followed by facilitated peer presentations were highly valued. Participants recommended that in future more time be spent introducing the disciplines to each other and preparing the students for their home visit to augment the value of these. They also suggested that other disciplines such as nursing be included in this programme and more interprofessional education be included in their training as a whole.

Participants from radiation therapy were also generally positive towards the programme and their involvement. Notwithstanding this, these participants perceived lack of understanding and appreciation of their profession from the other disciplines. The radiation therapy students thought they were able to demonstrate their interpersonal but not their technical skills in the context of community based long-term condition management.

Discussion and implications

The changes in participant attitudes and perceptions suggest that the programme not only achieved its interprofessional objectives, but also its subject-based learning objectives related to long-term condition management. These findings indicate that a brief, modular, multifaceted interprofessional education intervention, using purpose-developed resources, can have immediate positive effects and

contribute to the development of health professionals who are ready to collaborate with others to improve patient outcomes.

The focus group evaluation indicated that the students see the programme as being valuable and career relevant. Findings from this evaluation will be used to improve future iterations of the programme, particularly with respect to ensuring that students have an opportunity to introduce their discipline to students from the other disciplines involved, and that all students understand the value which each discipline adds to the programme.

This study found that additional disciplines can be feasibly added the existing programme. The addition of other disciplines will be actively pursued, particularly the discipline of nursing.

SUMMARY OF SPENDING

The $6900 awarded to the project was spent by 3rd October 2014. These funds were spent on researcher salaries and project running costs. Subsequent work has been funded by the Department of Radiation Therapy HOD C50 account.

OTHER OUTPUTS

Publication

One paper '*The positive impact of interprofessional education: a controlled trial to evaluate a programme for health professional students*' is currently under review by the open access journal BMC Medical Education.

Another paper 'What an interprofessional education programme means to students and what makes it meaningful?' is currently being prepared for the Journal of Interprofessional Care.

A brief report '*Does Interprofessional Education Make a Difference to Students' Attitudes to Practice?*' has been accepted for publication in the Journal of Medical Imaging and Radiation Sciences (http://dx.doi.org/10.1016/j.jmir.2014.10.004)

Conference

The results of this research have been very well received when presented at conferences:

1) Poster Presentation at Canadian Association of Medical Radiation Technology, (CAMRT) Edmonton, June 2014
2) Paper and Poster at New Zealand Institute of Medical Radiation Technology (NZIMRT) conference, Invercargill, August 2014
    - Best Radiation Therapy paper award
    - Highly Commended poster award
3) Paper Presentation at New Zealand Interprofessional Health Conference, Auckland, 8-9 September 2014

Abstracts currently under review for:

1) The Australian and New Zealand Association for Health Professional Educators, Newcastle, Australia, 29-31 March 2015
2) The World Confederation for Physical Therapy Congress, Singapore, 1-4 May 2015
3) 2015 New Zealand Institute of Medical Radiation Technology – Australian Institute of Radiography (NZIMRT-AIR) Scientific Meeting, Wellington, 23-26 July 2015