

**Evaluating a Disease State and Medical Management Review Model of
Interprofessional Practice in an Aged Care Setting**

Abstract

There is lack of literature data reporting an incorporation of medication management reviews in students' interprofessional education and practice programs in aged care settings. This study reports how an interprofessional disease state and medication management review program (DSMMR) was established in a residential aged care facility in Perth, Western Australia. Students from the disciplines of nursing, pharmacy and physiotherapy focused on a 'wellness check' in the areas of cognition, falls and continence whilst integrating a medication management review. Students' attitudes were explored using a pre and post placement questionnaire. Students indicated positive experience with the Interprofessional Professional Education (IPE) DSMMR program which also resulted in their positive attitudinal shift towards interprofessional education and practice. These findings indicated that aged care can be a suitable setting for student interprofessional programs focusing on DSMMR.

Key words: interprofessional education, aged care, disease state, medication management, attitudes

Introduction

Interprofessional education (IPE) is an area which has gained an increasing attention from education providers and policymakers (Reeves et al., 2008). In this regard, in addition to increased complexity of care and prevalence of chronic diseases, an ageing population is also contributing to an increased interest for interprofessional approaches to patient care (Reeves et al., 2008). Various studies reporting worksite based programs which focused on chronic disease state management (DSM), wellness and preventative care have thus far reported positive outcomes such as improved clinical outcomes, job satisfaction, reduced health expenditures and improved health and work productivity for participants (Bright et al., 2012). To benefit their employees a number of universities are providing programs based on pharmacist led DSM and medication therapy management (MTM) (Bright et al., 2012). The rationale for these worksite based programs was to utilize the skills of various health professionals and provide a comprehensive disease state management for employees. Diseases managed under the DSM/MTM programs included hypertension, asthma and diabetes.

There is currently a lack of studies reporting an integration of the pharmacist led medication management review in interprofessional DSM programs in aged care settings. As a practice environment, aged care has potential to engage a variety of health professionals with specific opportunities for interprofessional practice. The aim of this project was to pilot an IPE placement model for the disciplines of nursing, pharmacy and physiotherapy. This model would be based around disease state and medication management reviews (DSMMR) with therapeutic focus on residents 'wellness check' i.e. cognition, falls and continence. It is worth noting that whilst Australian pharmacists engage in medication management reviews in Residential Aged Care Facilities (RACF), this is currently done largely independently. In this

article we report on the design, development, implementation and the evaluation of student's attitudinal change when introducing an IPE DSMMR based program in a RACF.

Methods

In order to develop a pilot IPE DSMMR framework model, stakeholders such as general practitioner, physiotherapist, nurse, occupational therapist, RACF management and representatives from schools of pharmacy, nursing and physiotherapy were consulted.

The IPE DSMMR pilot model

Following stakeholder consultations it was decided that the IPE DSMMR model should be focused on reviewing residents' medication management and their 'wellness status' i.e. cognition, falls and continence status. Students were focused on how residents' medications affect their 'wellness status' and how each discipline could contribute towards improving that.

A total of eight students divided into two groups of four attended the IPE DSMMR clinic on any day. A pharmacist accredited to conduct medication management reviews, an occupational therapist, a physiotherapist and a registered nurse were directly involved in students' supervision.

An IPE DSMMR data collection form was designed to guide students regarding their assigned resident throughout the session. Guided by this data collection form, students reviewed residents' medical profile and recorded relevant information.

After visiting the resident under the supervision of one of the health professionals available at site, students completed the IPE DSMMR form and also consulted health professionals. Students then discussed their assigned resident and designed an interprofessional care plan

which was based around DSMMR and 'wellness status'. The interprofessional care plan combined discipline specific findings and recommendations. This care plan was then presented to their peers.

Data analysis

The pre- and post- placement Interprofessional Socialisation and Valuing Scale (ISVS) designed by King et al. (King et al., 2010) were used to measure students' attitudes. The pre- and post-placement surveys also had additional measures designed by Brewer et al. (Curtin University, 2010). The IPE DSMMR pilot program had no assessment component for the students. Student attitudes to survey statements were measured using a six point Likert scale and analysed using SPSS® vs19. In the Likert scale, the agreement to survey statements was rated as follows: 6= to a very great extent, 5=to a great extent, 4=to a moderate extent, 3=to a small extent, 2=to a very small extent, 1=to at all, 0=not applicable. Students additional shift towards IPE was measured based on three sub-factors: ability to collaborate, value in collaboration and comfort in collaboration) initially derived by King et al (2010). Students also answered six closed (related to demographics) and a number of open ended questions (two questions in the pre-placement survey and seven in the post-placement survey).

Results

A total of 72 students participated out of which 36 were from pharmacy, 30 from physiotherapy and six from nursing disciplines. These students were assigned a total of 26 individual cases.

Attitudes towards interprofessional education

Most students indicated that their experience with the IPE DSMMR program was good/very good with no students suggesting to have had a poor or very poor experience with the program. Data from pre-placement questionnaires indicated that there were differences in students attitudes towards all three sub-factors i.e. ability to collaborate, value in collaboration and comfort in collaboration. In this regard, agreement levels of nursing students to statements proffered were lower. Following completion of the IPE DSMMR program, students' responses indicated that there was no difference between disciplines in relation to their attitudes towards IPE. Students' attitudinal change towards IPE was not affected by the clinical complexity of residents assigned to IPE teams.

Positive experience with the IPE DSMMR program was also confirmed by students' comments in open ended questions. In this regard, as a result of this program students indicated a better understanding of other health professionals. Collaborating with other professions and interacting with residents were regarded as beneficial aspects of this model. In terms of potential aspects to apply in future practice, students indicated a better appreciation of other health professionals, communication and teamwork with other health professionals. A positive attitude in terms of considering aged care as a future career plan was also indicated. Gathering patient information (from residents' medical profiles), medication selection (when discussing alternative medications to include in the interprofessional care plan) and behavioural characteristics in patients with dementia (that students had a chance to see when visiting residents) were seen as challenging aspects of this program.

Discussion

This program is one of the first, in an aged care setting, that students focused on a 'wellness check' (i.e. falls, continence and cognition) and medication management review. The evaluation of the IPE DSMMR program indicated that students had positive experiences and

a positive attitudinal shift towards interprofessional education and practice. Students' comments indicated that better collaboration between professionals could be achieved through an IPE DSMMR model discussed above. Literature data has suggested that collaboration between health professionals has a positive effect on workplace issues such as recruitment, job satisfaction and retention (Stone, 2007). Therefore, the model employed in this program may be a suitable basis for designing future interprofessional programs which are aimed at alleviating workforce shortages in aged care setting. This can be also confirmed by students' comments that suggested that they would consider an interprofessional setting as a future career plan. Brewer et al. (2011) reported a successful integration of IPE teams in aged care settings.

The pilot IPE DSMMR program described in this study provides a model which integrates medication management review focused on improving residents' 'wellness status' in an aged care setting.

Conclusion

This program demonstrated that the aged care setting can provide a suitable basis for designing interprofessional education and practice models for disciplines of nursing, pharmacy and physiotherapy focusing on 'wellness check' and medication management review.

Declaration of interest

The authors report no conflict of interest

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