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Engaging older people as university-based instructors: A model to improve the empathy and attitudes of pharmacists in training



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ABSTRACT

Background and purpose: Clinical guidelines increasingly emphasise the importance of comprehensive and holistic care for older people. The objective of this education brief is to describe a workshop designed to improve first year pharmacy students' empathy and attitudes towards older people.

Educational activity and setting: A two-hour, interactive, university-based workshop was developed and evaluated. Small groups of first year pharmacy students (approximately five per group) worked with an older person to complete a number of scaffolded activities focused on the older person's life experiences with pharmacy and medication usage. The effectiveness of this intervention was measured using an eight-item, pre- and post-workshop survey adapted from published scales.

Findings: Engaging older people as university-based instructors for first year pharmacy students was associated with significant improvements in three of the eight attitudinal items. Following the workshop, students were more likely to report that older people are: pleasant to be with ($p < 0.001$), more likely to understand what it feels like to have problems with aging ($p < 0.005$) and less likely to believe older people become less organised and more confused as they age ($p < 0.001$).

Summary: Engaging older people as university-based instructors for first year pharmacy students may be a useful strategy to develop empathy and positive attitudes towards older people. Further research is needed to determine if the attitudinal improvements are sustained over time.

Background and purpose

There is increasing recognition of the need to provide comprehensive and holistic care for older people with multi-morbidity and polypharmacy.¹ Two-thirds of Australians aged 75 years and older use five or more medications daily and > 80% of these medications are purchased through pharmacies.² For this reason, pharmacists are in frequent contact with older people. Traditionally, pharmacy education courses have been delivered in a predominately didactic nature focusing on developing therapeutic knowledge

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and clinical skills of students. The successful implementation of medication management services is dependent on pharmacists' abilities to interact and communicate with a diverse range of patients to optimise patient care.³

The Code of Ethics for Pharmacists published by the Pharmaceutical Society of Australia requires a pharmacist to practise and promote patient-centred care.⁴ The Standards for Pharmacy Programs in Australia and New Zealand describe the importance of ensuring graduates are equipped with appropriate knowledge, skills, and attitudes to commence work as a pharmacist.⁵ The importance of health professionals' skills and attitudes are increasingly described in guidelines for the management of illnesses disproportionately affecting older people. Australia's new Clinical Practice Guidelines and Principles of Care for People with Dementia recognises the importance of health professionals identifying and responding to older peoples' individual needs and preferences through person-centred and culturally appropriate care.⁶ Therefore, in undergraduate health professional education, there is a need to address those attitudes and skills, such as empathy, which enable comprehensive care for older people.

Empathy comprises the ability to comprehend and see the world from others' perspectives (cognitive empathy) and to connect to others' experiences or feelings (affective empathy).⁷ It can be challenging for health professionals to relate to and empathise with older people, especially if they have no experience with aging or disease-related conditions.⁸ The World Health Organization has recognised that negative attitudes towards aging and older people can have detrimental effects on physical and mental wellbeing.⁹ Empathy is an essential skill for health care professionals to develop and possess to establish a successful relationship with the patient to improve patient outcomes. A study of second year pharmacy students who engaged empathetically with patients resulted in improved patient satisfaction, adherence, and accuracy of diagnosis and prognosis.¹⁰

Two of the most commonly used scales to evaluate the effectiveness of interventions designed to improve empathy related to older people are the Maxwell-Sullivan Attitude Survey on Aging (MSAS)¹¹ developed in 1980 and the University California Los Angeles Geriatric Attitude Survey (UCLA-GAS)¹² developed in 1998. The reliability and validity of these scales in context beyond that for which they were developed has been questioned, with more recent validity testing not reaching established thresholds.^{13,14} However, these tools continue to be used to determine the effectiveness of educational interventions.^{14,15}

In a systematic review of interventions to improve medical students' attitudes towards older people, 16 of 27 interventions evaluated were reported as effective.¹⁶ The most effective interventions incorporated an aging simulation exercise or contact with a healthy older adult.^{16,17} Interventions that have been effective for medical students are likely to also be effective for other health professional students.⁸ Previous initiatives in the literature relating to pharmacy students have explored various ways to improve attitudes and perceptions towards older people.^{18,19} In a second-year pharmacy intervention, most students had a favourable attitude towards older people and geriatric care when it was incorporated into the pharmacy curriculum.¹⁹

A range of interventions have shown the pedagogical benefits of learning by visualisation, using aging simulation games, and guided experiences with specific consumer groups.²⁰ There is evidence to support this approach, to engage students and allow them to conceptualise aging.²⁰ Experiential learning can help to improve students' empathy towards older people and socialisation of aging.²¹ The integration of consumers with specific traits as university-based instructors may be a promising strategy to improve pharmacy students' attitudes.^{22,23} Engaging consumers with schizophrenia as university-based instructors improved students' attitudes towards people with mental illness.²⁴ Contact with consumers in a safe, educational setting has improved empathy and led to sustained reductions in stigma at six weeks and 12 months post intervention.²² This paper describes the implementation of a workshop to improve first year pharmacy students' empathy and attitudes towards older people. Educational activity and setting

Monash University is one of 17 Australian universities offering undergraduate pharmacy education. Most Australian universities offer a four-year bachelor of pharmacy (BPharm) honours degree after which graduates are required to complete a one-year intern training program prior to undertaking their registration examination. From 2017, Monash University began offering a new five-year vertically integrated Master of Pharmacy (MPharm) degree; the fifth year incorporates the required professional practice intern hours. Professional Practice was one of three units of study taught within the first semester of the degree. There are five Professional Practice units delivered over the four-year degree.

Throughout the MPharm curriculum, there is an intentional focus on developing eight skills identified as essential for a practising pharmacist. The eight skills are empathy, problem solving, inquiry, reflective practice, integrity, team-work, oral communication, and written communication. The aged care pharmacy workshop described here was offered as part of the first Professional Practice unit of study. The workshop focused on development of three skills: team-work, oral communication, and empathy. Fig. 1 provides an overview of the two-hour workshop. The different phases of the workshop are outlined across the columns, while the roles of the facilitator (trained current practitioner), student, older person university-based instructor (> 60-year-old volunteer), and faculty lead (content expert- often tenured faculty member) during these phases are described in the rows. Throughout the workshop, the students worked with the older people to explore their life experiences, experiences with health services, and medication use.

The primary aim of the workshop was for students to develop an understanding of, and empathy with, older people, and through this experience comprehend the difficulties older people may face in relation to medication adherence.

There were five phases to the workshop: question development and interview planning (30 min), student led interview (30 min), presentation preparation (15 min), presentation (5 min per group), and feedback and reflection (10 min).

Specific roles of workshop participants

Older person university-based instructor

Healthy older people from a local community group were invited to participate in the workshop. The older person university-based instructor ($n = 25$) were at least 60 years of age and had visible characteristics of independent, active older people. Prior to volunteering in the workshop, the university instructors (older people) were briefed on the structure of the workshop and their role

The session plan for the workshop with an older person.

	Preparation (before the session)	Introduction (10 mins)	Question development and interview planning (30 mins)	Interview (30 mins)	Presentation preparation (15 mins)	Presentation (5 mins per team)	Feedback and reflection (10 mins)	Closing the loop (10 mins)	After the workshop
Facilitator	Workshop briefing	Setting the stage	Rotate throughout the room, provide support and advice to students as required			Prepare feedback for students based on their presentations and older person feedback	Provide feedback to students	Facilitator leads a discussion to identify the important skills, strategies and learning opportunities students had around relating to an older person	Workshop debrief
Student	Pre workshop survey		Students work in groups to plan interview	Students as a group interview the older person about: <ul style="list-style-type: none"> Life experiences Experience of Pharmacy Medication use 	Students work in groups to prepare presentation on interview outcomes	Students deliver presentation to peers on the finding from their interview. Listen to 4-5 peer presentations			Post workshop survey
Older person university-based instructor	Photo at ~18 years Identify up to five current medications		Welcome and session briefing		Older person completes feedback form for students	Debrief and refreshments for older people			
Faculty Lead	Arrange older people. One older person per group of 5 students Produce and deliver Discovery and Explore sessions with students Deliver workshop briefing with facilitators			Rotate throughout the room, provide support and advice to facilitators and to students as required	Academic staff member debriefs on the overall activity	Sort and deliver feedback to individual facilitators	Rotate throughout the room, provide support and advice to facilitators and to students as required		Workshop debrief

Fig. 1. Session plan for the workshop with an older person.^a

^aEach column represents a period of time associated with the workshop. Each row represents a role (facilitator, student, older person university-based instructor, and faculty lead). Each box represents an activity or task. The alignment of the box within or across columns and rows indicates when and who are involved in completing the task. Colour coding of each box represents the role who is responsible for leading the activity.

(this included bringing a photo of themselves when they were in their early 20s and identifying no more than five medications they regularly use).

During phase two of the workshop, students worked in small groups with the older person university-based instructor providing stories of their younger days supported by the photos. In response to questions from the students, the older person described their experience with pharmacies and pharmacists and how these experiences helped or hindered their medication use. In the final part of the interaction, students used structured interviewing techniques to complete a Medi-List²⁵ for the older person university-based instructor about their medicines. The older people were then escorted by a student to a separate room where they completed a form providing feedback to their students on the communication skills of the group and informally debriefed while having light refreshments.

Student

Small groups (of five students) had the opportunity to develop their team-work skills during the question development and interview planning phase. Students worked together to brainstorm questions and decide on key topics and themes for the interview. To encourage active participation and support all students in actively engaging with the workshop, each student in the group was required to ask at least one question. Students were required to reach consensus on the communication strategy they would use with the older person.

Each group worked with one older person for 30 min. During the interaction, students needed to listen closely to what the older

person said and make notes for the presentation phase. In the final part of the interview, student gained experience completing a Medi-List, an Australian Government tool for assisting older people or their caregivers to maintain an up-to-date medication list.²⁵ At the end of the interview, one member of the group escorted the older person to the debriefing area. Each group prepared and delivered a five-min oral presentation to the other groups within the room. To support individual students in developing their oral communication skills, every student contributed to the preparation and delivery of the presentation.

Each group presentation covered the following information: 1) demographic information about the older person (name, age, gender, health issues and social history); 2) the older person's experience of pharmacy, pharmacists, and medicine; 3) reflection of the students' experience filling in the Medi-List with the older person; and 4) comment on the communication techniques used and reflection on effectiveness.

Prior to the workshop students completed Discovery sessions (introduces students to the key knowledge and resources related to this topic) and Explore sessions (where students use their knowledge in a scaffolded way to address professionally relevant questions) aligned to this topic.

Facilitator

Facilitators were assigned to workshop groups for approximately four weeks. They were trained in facilitating collaborative learning experiences upon appointment. Facilitators for all professional practice workshops were actively practising pharmacists. Prior to the workshop, the facilitators were briefed by the faculty lead on the workshop and their role. The role of the facilitator was to introduce the aims of the workshop and manage the logistics of the session. During the interview planning, interview, and presentation preparation, the facilitator rotated through the room providing advice and support to students as required. During the student presentation, the facilitator prepared feedback for students based on their presentations. To conclude the workshop, the facilitator led a discussion with their room of students around identifying important skills, strategies, and learning opportunities students had around relating to an older person.

Faculty lead

The role of the faculty lead was to produce and deliver Discovery and Explore sessions prior to the workshop. On the day of the workshop, the faculty lead delivered the workshop briefing with facilitators and allocated an older person university-based instructor to each group of students. The faculty lead supported the facilitators and students as needed throughout the two-hour workshop.

Evaluation process

The MSAS and the UCLA-GAS were adapted to create a contextually relevant eight-item survey instrument.^{16,26,27} These scales were adapted to provide greater relevance to the intervention (Table 1). The wording of several items was modified to improve comprehension among undergraduate pharmacy students and better contextualise to the Australian setting. An abridged eight-item survey was used in preference to a longer scale in order to maximise the response rate for online completion by students.²⁸ The abridged survey was independently assessed for face validity by two faculty members.

The instrument was delivered to students through the learning management system Moodle. Students were invited to respond to the pre-workshop survey 48 hours before the commencement of the workshop. The post-workshop survey opened at the conclusion of the workshop and remained open for one week. Students received two separate reminders to complete the post-workshop survey. No incentive was offered for completion of the survey.

Student responses were paired and converted to numeric scores (strongly disagree = 1, disagree = 2, neutral = 3, agree = 4,

Table 1

Impact of involving older people as university-based instructors in a professional practice workshop for first year pharmacy students as part of Monash's new integrated MPharm degree.^a

Item ^b	Pre (SD)	Post (SD)	Change (n = 136)	Adjusted p-value ^c
1. If I have the choice, I would rather see younger people than older people ^d	2.85 (0.80)	2.43 (0.91)	−0.41	0.63
2. Most older people are pleasant to be with ^d	3.86 (0.69)	4.36 (0.72)	−0.5	< 0.001
3. Older people in general do not contribute much to society ^d	1.77 (0.83)	1.74 (0.90)	−0.04	> 0.99
4. It is interesting listening to older people's accounts of their past experiences ^d	4.40 (0.69)	4.65 (0.65)	0.25	0.22
5. As people grow older, they become less organised and more confused ^d	3.32 (0.96)	2.49 (0.97)	−0.83	< 0.001
6. I can empathise with older people ^{d,e}	4.02 (0.81)	4.19 (0.80)	0.18	0.75
7. I understand what it feels like to have problems with ageing ^c	3.29 (1.05)	3.76 (0.95)	0.47	< 0.005
8. Understanding older people is valuable to me ^e	4.61 (0.63)	4.68 (0.54)	0.06	> 0.99

^a Data presented as mean with standard deviation (Friedman test).

^b 5-point Likert scales ranging from strongly disagree to strongly agree adapted from the Maxwell-Sullivan Attitude Survey on Aging and the University California Los Angeles Geriatric Attitude Survey.

^c Dunn's test for non-parametric pairwise multiple comparisons.

bold represents significant difference.

^d Adapted with permission from the University California Los Angeles Geriatric Attitude Survey.¹²

^e Adapted from the Maxwell-Sullivan attitude survey on Aging.¹¹

strongly agree = 5) and difference was statistically calculated. Significance was determined using a Dunn's multiple comparison test (between the matched responses for each question). Unpaired responses and responses without consent were excluded from the analysis.

Ethical review

The study was approved by the Monash University Human Research Ethics Committee (Reference number 2017-9268-10376).

Findings

Of the 180 students who participated in the workshop with an older person, 164 students provided consent for their responses to be analysed for research purposes. There were 177 responses to the pre-workshop survey and 150 responses to the post-workshop survey. Combined there were 136 matched pre- and post-workshop survey responses with approval to be analysed (response rate 75%) (Table 1).

For all items, the mean response in the post-workshop survey was indicative of a more empathetic response. The item with the largest change was item 5 (As people grow older, they become less organised and more confused), which moved 0.83 points. Significant change was also observed in the post test for item 2 (Most older people are pleasant to be with) and item 7 (I understand what it feels like to have problems with aging).

Discussion

Engaging healthy older people as university-based instructors for first year pharmacy students was associated with significant short-term improvements in three of the eight attitudinal items assessed. This provides evidence of the value of health professionals engaging with their future consumers in a directed, scaffolded, and safe environment.^{29,30}

We found this education initiative addressed an important need. The need for students to be empathetic without being patronising or condescending has been identified through anecdotal feedback from staff and clinical placement preceptors of previous cohorts. This need has also been reported in relation to the training of other health professional students.³¹ The structure of the workshop allowed students to develop, practise, and receive feedback (directly from the older person) on this skill in a supported environment. Following the workshop, students were more likely to report older people are pleasant to be with, more likely to understand what it feels like to have problems with aging, and less likely to believe older people become less organised and more confused as they age. Improvements in these three areas will support students to treat older people with respect and as valued individuals as outlined in the 10 principles of dignity.³² The lived experience students gained through the workshop activities served as an important complement to knowledge-based education. It has been established that knowledge-based education alone is unlikely to improve students' attitudes.¹⁶

Student participation in the specific workshop activities was maximised through the group structure and task design. Allowing each older person university-based instructor to work exclusively with a single group decreased the time pressure to complete the task, allowed genuine rapport to start to emerge, and enabled active engagement of all group members. The mandate in the workshop design for all students to directly participate through asking one or more questions further supported engagement. The use of small groups in learning experiences has been shown to support student learning in other contexts and has been shown to improve both student satisfaction and performance.³³

Although not a primary objective of this study, the workshop familiarised students with the process of completing a Medi-List, an Australian Government tool for assisting older people or their caregivers to maintain an up-to-date medication list.²⁵ As rates of polypharmacy and regimen complexity continue to increase,^{34,35} the necessity of tools such as the Medi-List tool may also increase. Within the region there is also an improved awareness of the value of pharmacist-led medication reconciliation services across a range of practice settings.³⁶

The older people who participated in our workshop were not acutely unwell or in a patient-health professional relationship with the students. This may have been a factor in its success in influencing student attitudes. Research in the mental health literature has reported contact is most effective at improving students' attitudes when the patient and health professional share equal status.²² For this reason, engaging healthy older people as university-based instructors may be more effective at improving attitudes than student encounters with unwell older people during undergraduate clinical placements. The wording of the eight items used to evaluate the workshop did not distinguish between older people in general or older people as patients. We do not know whether students would have had different attitudes to older patients. This has also been described as a limitation in previous studies.¹⁶

While the workshop produced an immediate improvement in attitudes, further research will be required to identify if the improvements are sustained and if they influence behaviour when in practice. Immediate improvements in empathy scores were not sustained for seven days following pharmacy students' participation in a 40-min workshop involving watching and discussing a theatrical performance about aging.³⁷ However, a study of consumer-led education in mental health pharmacy education demonstrated students' attitudinal changes were sustained over a 12-month period.²² The duration of impact will need to be elucidated in further studies. Incorporating the Aged Care Workshop in the curriculum may help prevent the apparent decline in emotional empathy reported over the course of some health professional degrees.^{38–40} The sustainability of this workshop will need to be established. The recruitment of older people university-based instructors for this workshop was dependent upon the personal connections of the faculty lead.

The logistics and resources required to organise this workshop are described to assist other educators who may be interested in adopting this program. The development of the resources (discovery, explore, apply) used a team-based approach with faculty members (20 hours), educational specialists (10 hours), and technical specialists (10 hours). These resources are anticipated to be revised as part of the continual improvement process annually based on feedback and critical reflections. Annually the academic staff member will need to arrange the logistics, including identifying and recruiting older people university-based instructors (3 hours). Training for facilitators and older people university-based instructors was approximately 30 min each for one faculty member, one facilitator, and five older persons (total 3.5 hours). Delivering the workshop to 25 students requires faculty time (two hours), facilitator time (two hours), and older person time (one hour per group). The faculty is able to monitor up to five simultaneous workshops in the teaching environment at Monash University.

A strength of our initiative was the high response rate. The eight-item survey used to evaluate our initiative were adapted from two previously validated survey instruments. We adapted these previous scales to contextualise to the Australian pharmacy student setting. However, our survey instrument was only assessed for face-validity. The internal consistency or content validity of the specific items has not been established. We did not collect demographic data therefore were not able to determine the impact of these factors on the outcomes. However, demographic factors have not been shown to be associated with empathy responses in previous research.³⁸

We did not collect data on whether students had prior experience of working in a pharmacy, caring for a family member, or the structure of their family unit. While workplace contact with people with mental illness does not necessarily improve attitudes,²² it is possible students with prior work, caregiving, or family experience derived less benefit from our initiative. Our study employed a pre-test/post-test design and did not include a parallel control group. This is a limitation common to many other education studies.¹⁶ Further research is needed to determine to what extent improved attitudes among students translate into pharmacists having greater empathy in provision of pharmacy services to older patients. Anecdotal feedback suggested potential benefits for the older people themselves; however, we did not formally evaluate this as part of the initiative.

Summary

A two-hour workshop involving older people as university-based instructors produced immediate improvements in self-reported attitudes of students towards older people. Engaging older people as university-based instructors for first year pharmacy students may be a successful strategy to develop positive attitudes towards older people, empathy, and oral communication skills. There is a clear need for pharmacy courses to focus on empathy training to develop pharmacy students' communication skills, empathy, and attitudes towards older people. Further research is needed to determine whether the attitudinal improvements are sustained over time.

Disclosure(s)

None.

Declaration of competing interest

None.

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