



# Medicines Clinic

## A novel learning opportunity for understanding health literacy

### Summary Report

James Windle, Aynsley Peterson, Rhiannon Braund, Stephen Duffull

School of Pharmacy  
University of Otago

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## Authors

James Windle – School of Pharmacy, University of Otago  
Aynsley Peterson – School of Pharmacy, University of Otago  
Rhiannon Braund – School of Pharmacy, University of Otago  
Stephen Duffull – School of Pharmacy, University of Otago

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## Aims

In mid-2014, a group of University of Otago School of Pharmacy academic staff members began running monthly Medicines and Health Literacy Clinics (MHLC) within the Dunedin community with final year pharmacy students attending. There were three aims: 1) to provide a community based patient-centred placement opportunity for final year students to better understand adult health literacy; 2) to provide a complimentary service providing medicines information for Dunedin residents led by the School of Pharmacy; 3) to provide an environment where students and academic pharmacists could interact, while illustrating a new example of activities possible in clinical care settings. This paper reports on the outcomes over one year since the initiation of MHLC.

## Background

In New Zealand, good health literacy means people “have the capacity to obtain, process and understand basic health information and services in order to make informed and appropriate health decisions” (Kōrero Mārama, Ministry of Health, 2010). More than half of adult New Zealanders have low levels of health literacy (Ministry of Education, 2006) which is inclusive of both numeracy skills and knowledge around health information (Workbase, 2013). The extent of low health literacy concerns all health professionals as impacts include: increased hospitalisation rates for chronic conditions, reduced ability to effectively manage long-term conditions and reduced ability to communicate to health professionals (Reid and White, 2012).

The Pharmacy Council of New Zealand (PCNZ) requires of all registered practicing pharmacists that they demonstrate competency in encouraging and supporting individuals in enhancing their health literacy and in self-managing their health and medicines, while identifying and addressing factors likely to affect adherence adversely. It is therefore important that students in the profession have the opportunity to directly gain exposure of how literacy around medicines affects patients' everyday lives. Placement opportunities in the current BPharm course for students which allow communication practice, then reflective learning about both health literacy and problem solving are limited.

The School sought an opportunity to create an experiential placement that gave back to the community in a meaningful and practical manner. This clinic offers a patient-centred health information opportunity to improve health literacy in the community. The MHLC (also known as a ‘Brown Bag Medication Review’) encourages patients to bring all of their medicines and supplements to a community setting without appointment or cost. Typical discussions centre around answering patient concerns, verifying what is being taken, identifying medication interactions or errors and improving aspects of adherence.

## Methodology

### **The Clinic**

The MHLC commenced in June 2014. Clinics were held on a monthly basis for a two or three hour duration. Venues included residential aged care facilities that incorporated independent living and community halls that were located in areas of high socioeconomic deprivation (Ministry of Health, 2008). Promotion of the clinic was conducted via public newspaper advertising if in the community, or via advertising flyers and newsletters distributed to residential aged care homes prior to the clinic dates. Local community pharmacies were advised directly of clinic times and pharmacist staff invited to attend.

Staff of the School of Pharmacy who held annual practicing certificates (APCs) as pharmacists were communicated with, inviting attendance to each clinic session. On occasion, personal communication was also made to specific pharmacists external to the University and all attendances were on a voluntary basis around current work demands and availability.

### **The Students**

All final (fourth) year pharmacy students (n=144 in 2014 and n=153 in 2015) were sent a clinic notification email two weeks prior, inviting expressions of interest to attend. The MHLC was offered to students on a voluntary participation and for attendance only if there was no timetable clash with curriculum activities, assessments etc. Student selection was made by one member of staff on the basis of several factors including staff numbers attending and clinic venue. Ratios tended to be two to three students to each pharmacist in attendance. A total of eighteen students attended 6 clinics from June to December 2014 and twenty-seven students attended 5 clinics from February to June 2015, representing approximately 30% of the mean final year student cohort.

Student activities relating to MHLC attendance included the following:

- 1) Pre-clinic readings published resources to which the URL links had been provided on an electronic learning management system (Blackboard). Included on this site (and central to the clinic activity) was the published literacy tool "Three steps to better health literacy" booklet produced for the Health Quality & Safety Commission New Zealand by Workbase.
- 2) Post-clinic reflection assignment on experiences gained, usefulness to the patient and how the three step approach to health literacy assisted their learning.
- 3) Exit survey for students who had consented to an ethics approved study to identify changes in student understanding of health literacy and the value of MHLC as a placement opportunity for learning.

### **Outcomes and Recommendations:**

#### **Impact on practice**

The HLMC has had the following impact on the community:

1. Improved health literacy for many patients accessing this clinic through 3 step health literacy tool as measured by feedback from the patients, observation by pharmacists, reporting in survey instrument and reflection by learners.
2. Improved health outcomes to several patients through education in optimising medicines directly in the clinic or as a result of follow-up work with patient feedback.
3. Attempted to address a previously unknown demand for opportunities within the community to contribute to health outcomes by improvement in health literacy as evidenced by clinic attendance of 65 patients over 11 clinics.
4. No adverse communication events have been reported from sessions conducted thus far.

## Impact on learners

The HMLC has had the following impact on final year pharmacy students attending:

1. The School has been able to place approximately a quarter of all final year students into the MHLC over a period of one year. Requests to voluntarily participate in each clinic have either matched or exceeded availability of student places. Whilst students may not access each clinic they apply for, the majority will attend at least one MHLC over the year.
2. Most students read the 3 steps to better health literacy as a resource and found this helpful to their learning (survey data).
3. Most students gained knowledge around adult health literacy having undertaken readings then attended the HMLC compared with prior knowledge. Some students who reported a decline in knowledge levels after attending HMLC compared to before, realised they may have over-estimated prior knowledge (survey data). In this case the HMLC provided a framework for the students to reflect on their prior and current awareness and skills in health literacy.
4. Student learning occurred in implementing the 3 steps to better health literacy approach, appreciating the variation of health literacy with which patients present and the need to both build up and help correct aspects to patient knowledge of their medicines (student reflection).
5. Students demonstrated moderate confidence levels discussing medication matters with patients. For a majority of students confidence levels around patient discussion had not changed from what they had estimated their confidence to be prior to attending the clinic (survey data).
6. A large majority of students reported that their self-confidence in communicating directly to patients during the HMLC had increased (survey data). Students' fears/concerns in attending clinics were identified and the vast majority of concerns were positively addressed during the clinic session. Three major themes relating to student concerns were identified for types of concerns the students had. Firstly, feeling insecure about prior knowledge to an extent that this inhibited communication with the patient. Secondly, concerns about the quality of the information. Thirdly, concerns about his/her ability to communicate the information to the patient (survey data).
7. Students perceived varying levels of contribution to patient conversations mostly being adequate or fully inclusive, however they indicated a greater desire to contribute more fully to patient conversation (survey data).
8. All students wished to further participate in future clinics and similarly would recommend other students attend a MHLC (survey data)
9. Students received unique and valuable clinical tuition from academic pharmacists over the clinic time, felt supported in their own conversations with the patients, and appreciated discussions drawing connections made from classroom learning to their patient experience (student reflections).
10. Students could appreciate that academic staff members, who are pharmacists, can contribute directly to patient care in this placement experience.

## Impact on the team

The MHLC has had the following impact on academic staff members who attend and manage the placement:

1. Provided a chance to share clinical knowledge from past teaching, research and practice experience to both patients and students in a new forum that encourages three-way learning opportunities.
2. Created an opportunity to provide direct and immediate positive health outcomes to patients in the local community.
3. Allowed the opportunity to formalise staff member's own learning objectives around adult health literacy for their own continuing professional development that contributes to registration requirements for the Pharmacy Council of New Zealand.
4. Opportunities to bring back these experiences into the classroom.
5. An opportunity for further engagement of some patients into the "friends of the pharmacy school" programme for future education sessions with students.
6. Some patients have indicated a willingness to further contribute to the School's teaching programme back in the classroom setting, so these clinics have provided a new opportunity to have further engagement with patients over a longer time frame and will benefit greater numbers of students and staff.
7. Contributing roles for team members are both clearly defined and supportive in respect of administrative, clinical and educational responsibilities.

## Further opportunities for MHLC in the community

1. It is intended that the MHLC will continue to be held on a monthly basis either in a community hall setting or within a residential retirement village. We believe these clinics have addressed the 3 core reasons that underpinned their inception. In addition, they have also provided an opportunity for our students to engage in voluntary activities that help their community.
2. The management team conduct regular meetings to determine sites to hold future clinics. For July 2015 a clinic was conducted at a Mosgiel retirement village which has been very receptive to this opportunity. Other retirement villages within the greater Dunedin area have been identified and are at various stages of having approaches made to them.
3. While the South Dunedin church hall has worked well as a venue and will continue to be used, other community localities are being identified especially in North Dunedin where possible MHLC's may be conducted in the future.
4. An additional setting to a community situated MHLC is being considered whereby patients will access this service within the University. It would be expected that appointments (block or episodic timetabling) would be made which would allow staff to be efficient with time management and flexibility around current teaching and research responsibilities. Being located on campus may also allow greater availability of students and easier access to resources. These would not replace clinics in local communities but will provide an additional opportunity for patients to attend clinics from outside of the local regions.
5. A local community pharmacy is wishing to conduct a MHLC within their own premises. The 2015 date is yet to be determined and the School is offering assistance with staff and students. This interest was led by a current pharmacy intern employed at this locality, who had attended a MHLC clinic in 2014 as a final year student. This is very encouraging as it is the School's wish to encourage uptake of this service within community pharmacy. Student exposure in current MHLC could be very useful for future uptake into pharmacies throughout the country as new graduates transfer learning into workplace settings.
6. Ultimately it is anticipated that all final year students will have an opportunity to attend at least one MHLC once logistical challenges have been overcome.

## Challenges ahead

1. **Timetabling.** Timetabling clinic sessions that allow for optimal patient attendance at the same time as students can make themselves available from normal curriculum activities. A full curriculum review of the BPharm programme is currently being undertaken and it is expected that this will result in greater flexibility in the programme which should aid MHLC clinic opportunities.
2. **Staff involvement.** Increasing academic staff involvement. While each month relevant academic staff who hold annual practicing certificates (APCs) are notified by email of clinic session times and localities, the offer to participate has not been taken up for numerous reasons. Some relate around teaching and research schedule clashes, others are part time and do not work at the University on the scheduled day. Again it appears that greater flexibility in the way the clinics are managed should provide more opportunity for staff.
3. **Patient availability.** Logistic balances between ratios of patients, academic pharmacists and students attending to optimize learning is ongoing and unlikely to be further refined whilst working within the community. Free and accessible clinics held once a month during a fixed time in the community or retirement centres create unpredictable uptake by patients. This may be partly accommodated by the additional introduction of a booked time clinic. However we also believe that uptake will improve and become more predictable as the clinic becomes more well recognized within the community
4. **Other clinic opportunities.** The School is actively investigating other clinic opportunities and has recently explored the possibility of running MHLC activities in adjunct to some nurse- led community clinics.
5. **Funding.** While the School is keen to continue to run complimentary clinics we believe that these should be funded by the DHB. This is an important service for the community and is especially important in those communities where travel to health care centres is either prohibitive on the basis of cost or lack of available transport. Ultimately the School will not be able to sustain a dramatic increase in clinic opportunities without additional support.

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