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The Pharmacy Guild of Australia

5th Community Pharmacy Agreement

HeLP: Health Literacy in Pharmacy project

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Research & Development

EXECUTIVE SUMMARY

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(For input into the design and delivery of the educational package and the use of these pharmacies for producing the backdrops and sets for the various videos used in the educational package.)

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Executive Summary

Health literacy is defined by the World Health Organization as "the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health." The concept of health literacy and its effect on the Quality Use of Medicines is relatively new to pharmacy practice, especially in Australia. Interventions to bridge the educational gap for practising pharmacists and pharmacy staff regarding health literacy communication techniques to use with consumers in Australia are non-existent, albeit very limited. This is despite the fact that up to 60% of Australians between the ages of 15 and 74 have limited health literacy.

Aims and objectives

The overall aim of the proposed research was to increase Australian community pharmacists' and pharmacy staff members' knowledge of health literacy, and ability to detect and respond to consumers' health literacy issues. This was to be achieved through the delivery of an education package that used a variety of methods to help overcome communication barriers regardless of consumers' perceived health literacy ability. The literature suggests that measurement of consumers' health literacy is impractical in a healthcare setting such as a community pharmacy; thus, this project focussed instead on **building capacity in community pharmacy to communicate and engage effectively with consumers to improve their use of medicines and healthcare resources**.

The specific research objectives were:

- To undertake a review of the literature relating to health literacy and health literacy educational interventions for healthcare professionals, specifically pharmacists.
- To investigate how health literacy education is delivered in pharmacy curricula in English-speaking countries to inform the development of the educational package trialled in this study.
- To design, develop and implement a multi-modal health literacy education package for community pharmacies in New South Wales, Victoria and Western Australia.
- To evaluate the impact of the package on pharmacists' and pharmacy staff members' knowledge and practice.
- To identify motivational factors and attitudes of pharmacists that may influence the uptake and success of the health literacy educational package in the pharmacy and how these may change over time.
- To measure the change in the health literacy friendliness of the pharmacy environment over the course of the trial.

Overview

This project was undertaken from October 2011 to February 2014, and involved the contribution of health literacy and pharmacy practice experts from around Australia, including Monash University, Curtin University, The University of Sydney, University of Technology Sydney, The University of Queensland and the Pharmaceutical Society of Australia.

The first phase of the project was a review of literature to November 2011, relating to health literacy in pharmacy practice. Twenty-two original research articles and five reviews were identified as suitable for inclusion in the literature review from 5,182 possibly-relevant articles. The review concluded that health literacy has demonstrated relationships in a number of pharmacy-related contexts, yet research directly in community

pharmacy is relatively rare, and effects in this context are less clear-cut. Even less common are interventions with pharmacy staff, rather than consumers. A 'grey-literature' search was conducted to collect possibly-relevant health literacy resources including videos, online courses, presentations and manuals. Forty-two resources were collected and reviewed, with the majority deemed unsuitable for informing either the content or format of the educational package.

To supplement the literature reviews, an international survey of pharmacy academics was conducted to collect information regarding methods in which health literacy is taught to students, as well as the content included in pharmacy curricula. The survey, distributed online, demonstrated a low response rate of 5%. Available data indicate that small-group learning was viewed as the most popular form of teaching in this area, and that oral-based assessment is the most prevalent form of evaluation.

The health literacy educational package was developed with assistance by professionals in the fields of health literacy, pharmacy and educational design, and reference to relevant literature and an online survey of health literacy education in English-speaking countries to inform the content and format of the package. The package was produced in two formats, for face-to-face or electronic delivery to a nominated staff member(s) in each participating pharmacy (a 'train-the-trainer' approach). This staff member(s) then managed the training of the remaining staff. The principle of "Universal Precautions" formed the foundation of the training, encouraging pharmacists and staff to assume that a consumer has limited health literacy until cues or clues from the consumer indicate otherwise. Central to the training was skills development for pharmacists and pharmacy staff to encourage questions from consumers, and ensure consumers' understanding of instructions and techniques. Two specific elements were use of the phrase "What questions do you have" and use of the "teach-back" method.

A randomised controlled trial method was used to evaluate the implementation of the educational package, with pharmacies block randomised into three groups: a group receiving training face-to-face, a group receiving training electronically, and a group receiving no training (control). A total of 77 pharmacies agreed to participate in this project, sampled by geographical region in New South Wales, Victoria and Western Australia. 63 pharmacies remained at the conclusion of the trial. After completion of the randomised control trial, control group pharmacies will receive the educational package to conduct training. This is to occur beginning June 2014 and continue throughout July 2014. Final approval for the refined package had not been provided at the time of publishing of this report, and therefore control group pharmacies had not been provided with training.

Pre-intervention, a number of evaluations were undertaken within each pharmacy. Firstly, a researcher-delivered survey was conducted in-pharmacy with consumers. This survey involved researchers observing consultations for key elements of the Universal Precautions training, followed by a brief interview with the observed consumers regarding their recall of these elements. Secondly, two simulated patients visited each pharmacy before and after the training, with a standardised request for either a product or advice, and documented the use of Universal Precautions by pharmacists and pharmacy staff members. Pre-intervention data identified little use of Universal Precautions, specifically the primary outcome, which was the use of the phrase "What questions do you have?". Observational data combined with consumer recall showed that pharmacies in the face-to-face group used the phrase 7.8% of the time, electronic group pharmacies used the phrase 4.5% of time, and control group pharmacies used the phrase 11.8% of the time. However, on the interactions that were observed by researchers pre-intervention, there was no use of this phrase. Consumer recall was relied upon for all interactions that could not be observed, and thus inaccurate recall may have led to a higher reported rate of use of this phrase.

Attitudinal and motivational data were also collected to assess pharmacists' and pharmacy staff members' attitudes, motivations and potential barriers to implementing the health literacy educational package. Pre-intervention median scores were determined for the intervention and control groups in the tested domains. The intervention and control groups scored the same median scores for all four domains pre-intervention on a scale of 1 to 7, where 1 is the lowest score and 7 the highest. These scores were: 5 for perceived behavioural control, 6 for attitudes, 6 for intentions, and 6 for subjective norms. An environmental survey of the 'health-literacy friendliness' of the pharmacy was also undertaken by the managing pharmacist or pharmacist-in-charge. Pre-intervention, face-to-face, electronic and control group pharmacies scored generally quite poorly in the area of 'health literacy policies', with mean scores of 1.45, 2.03 and 1.35 out of 3, respectively. Pharmacies performed

better in areas related to the promotion of services, printed materials and clear verbal communication, pre-intervention.

One or two senior staff members from each pharmacy in the *face-to-face* training groups attended a workshop (conducted locally) that aimed to develop their capacity to then train their remaining staff using the educational package. The *electronic* training group received the materials on a USB drive, along with hard-copy training materials, and a key staff member was then responsible for self-directed learning, then training of the remaining staff. Participants were allocated from August 2013 to November 2013 to complete their in-pharmacy training. Post-intervention evaluations were then conducted with all pharmacies to measure the implementation of the educational package.

Post-intervention, consumer recall, researcher observation, and simulated patient data collectively demonstrated a significant increase in use of the phrase 'What questions do you have?'. Specifically,, there was a significant increase in the use of the phrase "What questions do you have?" by pharmacists and pharmacy staff members in both intervention groups, with the face-to-face and electronic groups 6.14 and 4.29 times, respectively, more likely to use the phrase than the control group using consumer recall. There was no change in the use of the teach-back method.

There was a significant improvement in attitudes and intentions of pharmacists and pharmacy staff of the intervention groups regarding undertaking health literacy training in comparison to the control group, as well as a significant improvement in perceived behavioural control (people's perceptions of their ability to perform certain tasks) of pharmacists and pharmacy staff in the intervention groups when compared pre- and post-intervention.

There was some improvement in environmental and organisational aspects of the pharmacy, particularly in relation to the implementation of health literacy policies and management of health literacy issues for consumers from culturally and linguistically diverse (CALD) backgrounds.

Following this, focus groups and individual telephone interviews were conducted with 17 pharmacists and 22 pharmacy assistants from 11 pharmacies to collect feedback in relation to the perceived effectiveness, usability and sustainability of the educational package to aid in the refinement of the package before wider dissemination to community pharmacies in the future. Participants offered generally positive feedback in regards to the usability and perceived effectiveness of the package, yet reported difficulty using the teach-back method with consumers, due a lack of examples and practice.

A revised version of the educational package is presented within this report, along with recommendations relating to ongoing evaluation and methods to ensure its sustainability in pharmacy. The package, comprising four modules, is recommended for wider implementation, including to Schools of Pharmacy for inclusion in Pharmacy curricula. The researchers welcome further feedback on all components, but in particular, the applied module relating to 'outreach' initiatives to the carers and teachers of at-risk sectors of the community, when these service models become more widely trialled.

Findings versus project objectives

The literature review identified the gaps in knowledge and paucity of educational interventions in relation to health literacy in community pharmacies, especially in Australia.

The survey of academic pharmacists, an additional objective to supplement the literature review, confirmed the original concept of small-group learning as an effective delivery mode, supplemented with role-plays. A low response rate limited the ability to generalise these findings more widely.

The educational package was successfully designed in a train-the-trainer format and implemented in 77 pharmacies in Australia, 63 pharmacies remained at the conclusion of the project. Withdrawing pharmacies cited perceived commitment for training of pharmacy staff and lack of managerial support as issues. Partial data

collected pre-intervention was able to be used from eight pharmacies before withdrawal. This withdrawal rate is comparable to other trials involving community pharmacies.

All three evaluation methods, researcher observation, consumer recall and simulated patient documentation, demonstrated improvement in some elements of the Universal Precautions approach with consumers. The element proving more challenging was the use of the teach-back method. Feedback from participants identified the need for flexibility in this approach, along with alternative techniques to encourage questions from consumers. Attitudes and intentions towards using the educational package were positive, and showed improvement in the intervention pharmacies following the training. Environmental change was detected, but may require more time for pharmacists and pharmacy staff to implement for significant change to be observe.