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Community pharmacy modifications to non-prescription medication requests: A simulated patient study

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ABSTRACT

Background: Self-care, and hence self-medication, is becoming an increasingly popular practice worldwide. Community pharmacies are an important destination for those seeking non-prescription medicines, and pharmacists and their staff are in a prime position to facilitate appropriate and safe self-medication.

Purpose: To determine what modifications (for example, a change in brand, change in drug, or non-supply) pharmacy staff make when presented with a request for a non-prescription medicine, and to determine what factors influence whether a modification is made.

Methods: Sixty-one third year Bachelor of Pharmacy students from The University of Sydney were trained as mystery shoppers to make 9 visits once a week to 36 community pharmacies in the metropolitan region of Sydney, Australia from March–October 2015. Students presented to a different, pre-allocated pharmacy once a week with a direct product request for a non-prescription medicine relating to a common ailment (e.g. asthma, insomnia, allergic rhinitis) for 9 weeks. Student mystery shoppers audio-recorded each visit and collected the details of the interaction and product sold. Descriptive statistics, chi-squared analyses, and binary logistic regression were performed to find factors influencing modifications made by pharmacy staff to the simulated patient initial request.

Results: Of 540 completed visits, 497 were eligible for analysis. Modification (change in brand, intra/interclass change, companion sale, or no product supplied) occurred in 49% (n = 245) of visits. Whether the product requested was deemed "not appropriate" given the scenario outline was the only significant predictor of whether a modification to the request occurred (42% modification, "appropriate" scenarios vs. 57% modification, "not appropriate" scenarios; $\chi^2 = 8.90$; $p < 0.01$).

Conclusions: Modification from the original non-prescription medicine request occurred in approximately half the reported requests. A request for a product that was considered "not appropriate" was more likely to elicit a modification than a request for an "appropriate" non-prescription medicine.

Introduction

In modern healthcare there has been a shift towards patient self-care as patients take on greater accountability for their own wellbeing.[1] An aspect of self-care is that of self-medication,[2] a practice by which individuals select and use medicines to treat self-recognised illnesses or symptoms.[3]

Self-medication is increasingly facilitated by the growing multi-billion dollar non-prescription medicine market,[4] and wider availability of medicines as more medicines are moved from prescription-only to non-prescription (over-the-counter) status globally.[5–7] As pharmacies are widely accessible to the public as medicine outlets to facilitate self-care,[8,9] it is important to determine how pharmacists and their staff are handling requests for non-prescription medicines.

Previous studies exploring the motives behind the reasons

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pharmacists make recommendations have established several factors influencing product recommendations when presented with a request for non-prescription medicines. Such factors include the medicine's adverse effect profile, self-use of the product, personal preference, patient characteristics, stock availability, and deals offered by pharmaceutical sales representatives.[10–13] From a consumer perspective, research has also highlighted that consumers have mixed feelings regarding the role of the pharmacist when seeking non-prescription medicines from a pharmacy. For example, some consumers responded that they believe that the pharmacist should routinely offer a generic or therapeutic substitution, whereas others stated that they would prefer the pharmacist didn't intervene.[14] Additionally, it has been shown that pharmacy staff can be very influential compared to other sources of information when purchasing a non-prescription product for the first time.[15]

In Australia, three medicine "schedules" exist for medicines available without a prescription from an authorised prescriber. These are *Pharmacist Only* (a registered pharmacist (or graduate pharmacist) must *personally* hand the product to the individual requesting it), *Pharmacy Medicine* (can only be sold under the supervision of a registered pharmacist in a licensed premises),[16] or unscheduled (freely available for sale in outlets such as supermarkets and convenience stores). Pharmacy staff in Australian community pharmacies primarily consist of pharmacists with a recognised Bachelor or Masters degree, dispense technicians with some level of training in the prescription dispensing process, and pharmacy assistants whose level of training is not standardised and may vary according to workplace and experience. Non-pharmacist staff members are permitted to engage in the selection and counselling of Pharmacy Medicines and unscheduled medicines.

To the best of the authors' knowledge, no study has examined the modifications (for example, a change in brand, a change in drug, or non-supply) pharmacy staff make when presented with non-prescription medicine requests for a wide range of common ailments. Research has shown mystery shopping (the use of simulated/pseudo-patients) is a method that can be employed to observe current practice and is feasible and accepted by pharmacists and their staff as a method of audit and intervention.[17] Therefore, this study aimed to use mystery shopping to determine the extent that pharmacists and their staff modify requests for non-prescription medicines by mystery shoppers, and the factors that are associated with modification.

Methods

A prospective parallel, repeated intervention, repeated measures study design was employed to monitor mystery shop visits to 36 different community pharmacies in the Sydney metropolitan region between March–October 2015. Ethics approval was granted by The University of Sydney Human Ethics Research Committee (approval number 2014/186).

Participants and setting

Thirty-six community pharmacies in the metropolitan region of Sydney, Australia were recruited by students about to enter their third year of the 4 year Bachelor of Pharmacy (BPharm) program at The University of Sydney. Of the 36 pharmacies included in the study, 18 (50%) belonged to a chain or banner group of pharmacies and the remaining half were independent. Geographically, 26 (72%) of pharmacies were located on a shopping street and 10 (28%) were inside a shopping mall or similar complex.

Pharmacy staff and students were invited to provide informed consent prior to participating in the study, including consent to audio-record any mystery shopping visits and feedback sessions. Pharmacy staff were informed that a mystery shopper would be coming to the pharmacy at any time once a week for 9 weeks, they were not informed which scenario their pharmacy had been allocated.

Sixty-one student mystery shoppers from the BPharm program volunteered to take part in the study in lieu of a component of their regular clinical placements program. Prior to undertaking any visits to recruited pharmacies, students attended a full day training program where they were familiarised with the scenarios and data collection sheets, practised mystery shopping, as well as given coaching on providing verbal feedback to pharmacy staff.

Mystery shopping visits

Thirty student mystery shoppers in semester 1 of the 2015 academic year were allocated a group of 9 pharmacies, based on geographic location, to visit each week with a variation of a mystery shopping scenario. Each pharmacy (n = 30) was allocated a different scenario where they would be presented with a direct product request relating to 1 of 10 common minor ailments (Table 1) over the course of 9 once-weekly visits by different student mystery shoppers. Each pharmacy was presented with the same scenario (with certain particulars varying each week) across the course of the 9 visits. In semester 2 of the academic year, 31 students were again allocated a group of 9 pharmacies, with 24 pharmacies from the first semester again participating in the study and 6 new pharmacies participating. Six pharmacies from semester 1 opted to not take part in semester 2. Pharmacies who participated in the first semester were allocated a different scenario for semester 2. Twenty-nine students were from the same third year BPharm cohort and the remaining 2 students were in their fourth and final year of the program (fourth-year students shared the nine visits between them).

Mystery shoppers presented to their allocated pharmacy with a scripted request for a non-prescription medicine, for example, "Can I get some Somac® [pantoprazole], please?" Each week a different mystery shopper visited the pharmacy with a slightly altered request. Parameters altered between visits included age/sex of the patient, the specific symptoms, what other medicines the patient was taking, what other medical conditions the patient had, and the product requested (for example the brand and strength).

Mystery shoppers requested the product from a pharmacy staff member, engaged in any questioning and counselling from the staff member, purchased the supplied product (where a product was supplied) and exited the pharmacy. Mystery shoppers then filled out a score sheet and returned to the pharmacy within 5 min requesting the pharmacy staff member to fill out a self-evaluation, based on the same score sheet, and provide any relevant verbal coaching or feedback. Any product purchased was returned to the pharmacy without refund. Shopping visits and feedback were audio-recorded where consent had been provided by the staff.

Data collection sheets used in this study were based on the Pharmaceutical Society of Australia's WHAT-STOP-GO protocol.[18] This protocol has been designed to aid pharmacy staff (in particular non-pharmacist staff, in history taking and making decisions based on what information has been gathered). Questions included in the protocol are **W**ho the medicine is for, **H**ow long they have had the presenting symptoms, what the **A**ctual symptoms are, and if they are on any other **T**reatments for these symptoms, or a different medical condition. Each element of the interaction was scored as yes, no, partial, or not applicable (Supplementary Material). Other information collected on the data sheets was the time and date of the visit, who served the mystery shopper, any products sold, the receipt for the purchased product, written or verbal advice provided, and questions on rapport developed during the shop as well

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