Article:
Tong, V, Raynor, DK orcid.org/0000-0003-0306-5275 and Aslani, P (2018) Receipt and use of spoken and written over-the-counter medicine information: insights into Australian and UK consumers' experiences. International Journal of Pharmacy Practice, 26 (2). pp. 129-137. ISSN 0961-7671

https://doi.org/10.1111/ijpp.12382

Receipt and use of spoken and written over-the-counter medicine information: insights into Australian and UK consumers' experiences

Abstract

Objectives

To explore Australian and UK consumers' receipt and use of spoken and written medicine information, and examine the role of leaflets for consumers of OTC medicines.

Methods

Semi-structured interviews were conducted with 37 Australian and 39 UK consumers to explore information received with their most recent OTC medicine purchase, and how information was used at different times post purchase. Interviews were audio-recorded, transcribed verbatim, and thematically analysed.

Key findings

Similarities were evident between the key themes identified from Australian and UK consumers' experiences. Consumers infrequently sought spoken information, and reported that pharmacy staff provided minimal spoken information for OTC medicines. Leaflets were not always received or wanted and had a less salient role as an information source for repeat OTC purchases. Consumers tended not to read OTC labels or leaflets. Product familiarity led to consumers tending not to seek information on labels or leaflets. When labels were consulted, directions for use were commonly read. However, OTC medicine information in general was infrequently revisited.

Conclusions

As familiarity is not an infallible proxy for safe and effective medication use, strategies to promote the value and use of these OTC medicine information sources are important and needed. Minimal spoken information provision coupled with limited written information use may adversely impact medication safety in self-management.

Keywords

Drug labelling; non-prescription drugs; information seeking behaviour; consumer health information; written information

Introduction

An increasing move towards the rescheduling of prescription medicines to over-the-counter (OTC) status has become apparent over the years, fuelled by various factors such as self-medication, consumerism, and the desire to direct health care costs to consumers.[1, 2] As OTC medication use is prevalent among consumers,[3, 4] facilitation of safe and effective OTC medication use requires availability, access, and utilisation of high quality spoken and written medicine information (WMI).

Spoken and WMI may be utilised by consumers of OTC medicines, and the sources of such information include pharmacists,[5-9] OTC medicine labels,[3, 5, 9-12] and leaflets.[5, 8, 12-14] Specific consumer OTC medicine information needs encompass directions for use, side effects, drug interactions, and medicine efficacy,[5] which have been addressed through the use of OTC labels.[15] However, OTC medicine information available at the point of purchase can vary. Consultations with pharmacy staff may take place at the point of purchase.[16-18] However, inconsistencies in the provision of spoken information exist,[19] such as between first-time and repeat purchases,[20] or different OTC medicines.[21, 22] Issues with limited information recall of spoken information,[23] in addition to availability of OTC medicines in retail settings where a health care professional is not available, can also impact OTC medication safety.

Previous research has focussed on consumer advice seeking[22] or advice received and/or sought by consumers when the medicine was being purchased,[7, 19, 20, 24, 25] or the advice used,[23] in relation to spoken OTC medicine information. Not all consumers actively sought spoken advice about OTC medicines in the pharmacy.[19, 22] However, a large proportion reported receiving spoken information, and were satisfied with the information received.[7, 25] Interviews conducted by Blom and Rens[5] over 25 years ago regarding spoken and WMI found that although spoken information was only provided for about one third of purchases, further information was not wanted by the vast majority.[5] WMI leaflets were not requested by consumers, with only a minority reading WMI received.[5] There has been a dearth of recent qualitative research into consumers' experiences regarding OTC medicine information receipt and use.

Reported readership of OTC labels varies significantly, from high readership[9, 15] to low readership exhibited for certain information such as possible side effects.[3, 26] Furthermore, OTC leaflet provision and availability differs between regulatory contexts. For example, leaflets must be available with all medicines as package inserts in the European Union.[27] However, in Australia, leaflets are only required by law for a subset of OTC medicines known as Pharmacist Only medicines.[28] Hence, such differences can impact consumers' OTC medicine information seeking, receipt, and use in self-management. To date, there is limited insight into the role of leaflets as sources of OTC medicine information for OTC medicine users and comparisons of their role between countries where their obligatory availability differs, such as Australia and the UK. Furthermore, limited research has qualitatively explored and compared consumers' receipt and use of spoken and written OTC medicine information between two countries that differ in WMI availability. Therefore, this study aimed to qualitatively explore Australian and UK consumers' receipt and use of spoken and WMI for OTC medicines, and; examine the perceived and actual role of leaflets for consumers of OTC medicines.

Methods

The present study was part of a larger international research collaboration which evaluated the usability of existing labels and leaflets for OTC medicines in Australia and the UK through the method of user testing. The study described here explored how consumers have sought, received, and used information about OTC medicines. Ethics approval was granted by the Human Research Ethics Committee of Institution A [2012/2865], and the Research Ethics Committee of Institution B [SHREC/RP/343]. All participants provided written informed consent and were reimbursed.

Recruitment and interview sampling frame

Individual, face-to-face semi-structured interviews were utilised to address the study aims, as it is a qualitative method that allows for individuals' experiences to be explored and elaborated upon in more detail.[29] Interviews took place between April 2013 and April 2014 in Sydney, Australia and Leeds, UK at either Institution A (Australia) or the spin-out company (UK).

Potential Australian participants were recruited using recruitment flyer distribution, online advertisements, and a market research company. Interested individuals directly contacted the researcher (Author 1) via the contact details provided on the recruitment flyers/online advertisements. The market research company recruited participants via their consumer database. All potential participants first spoke to Author 1 over the telephone for further information about the study. If they were still interested in participating, they were screened to confirm their eligibility in accordance with the inclusion and exclusion criteria. Once eligibility was confirmed, an interview time was arranged.

Recruitment of UK participants was completed through the identification of potential participants from the consumer database of a spin-out company from Institution B which develops, refines and tests health information. The researcher telephoned potential participants, explained the research study, and ascertained their interest in participating. If interested, they were screened for eligibility using the inclusion and exclusion criteria, and if

eligible to participate, an interview time was arranged for those who agreed to come to the purpose-built interview suite in the company offices.

Consumers were able to participate if they:

- Were 18 years or above,
- Were able to understand and communicate in English without the assistance from a translator, and
- Had bought and used an OTC medicine, either for themselves or someone they cared for, within the 6 month period immediately preceding study participation.

Consumers were ineligible if they:

- Were a health care professional (currently practising or retired),
- Utilised medicine information as a key part of their occupation, or
- Had significant cognitive or visual impairment which could impact study participation.

Interview protocol

All interviews were conducted by the same female researcher (Author 1). Each face-to-face session lasted approximately 1 hour and addressed a number of broader study aims. The interviewer took care to remain as unbiased as possible throughout the conduct of the interviews to help encourage open dialogue and dissuade socially desirable responses by participants.

All participants were required to complete tasks related to the user testing of OTC medicine information for either diclofenac or pholcodine.[30] Participants were next prompted to reflect upon their most recent purchase of an OTC medicine from a pharmacy (to minimise recall bias), and were asked to elaborate on the information received and used in relation to this purchase (Table 1). The interview protocol questions were developed and organised to reflect the treatment continuum i.e. from the point of purchase to after the medicine had been used. As part of the semi-structured interview protocol, probe questions were also used when needed to encourage further elaboration of the participants' recalled experiences, and their opinions and beliefs. This aimed to capture how OTC medicine

information was used by consumers at different points. The user testing of an OTC label and leaflet in the initial part of the interview was intended to aid recall and help stimulate consumers' reflections on their actual use of information about OTC medicines for themselves or person(s) under their care.

Data analysis

With consent, all interviews were audio-recorded and verbatim transcriptions of the interview audio recordings were completed. An incomplete recording was obtained for 1 UK interview due to audio-recording device malfunction; only the available data were transcribed. Resultant transcripts were then compared to the original audio recordings for transcription quality assurance purposes and familiarisation with the interview data.

Thematic analysis[31] of the finalised transcripts was then conducted by the interviewer (Author 1). The Australian and UK interviews were initially treated as two distinct data sets and analysed separately. Analysis of a portion of the transcripts was independently verified by a second researcher (Author 3). Preliminary data analysis involved systematically re-reading each transcript, and data were transposed into a matrix display[32] to support the ease of comparisons between interviews. A secondary matrix display was constructed to help further consolidate and refine the analysis to aid in the identification of both trends and discrepancies within and between the Australian and UK cohorts. Themes and subthemes were inductively derived, refined, and discussed within the research team. From the analyses, data saturation[33] in both the Australian and UK interview cohorts was determined to be achieved after 32 and 34 interviews, respectively.

Results

Semi-structured interviews were conducted with 37 Australian and 39 UK consumers (Table 2). A range of OTC medicines for various conditions were recently purchased (Table 3).

Although both first-time and repeat purchases were made, the majority of the most recent OTC medicine purchases were repeat purchases. Clear trends in information seeking behaviours were apparent among both Australian and UK cohorts. As a result, the findings have been pooled for reporting here, and any distinct findings between the cohorts have been separately reported, where applicable.

OTC medicine information used and/or received at the point of purchase

Active consumer seeking of spoken and/or written OTC medicine information

Minimal active seeking of spoken information was reported by consumers, where many consumers would essentially just obtain the product required and complete the purchase, in particular for repeat purchases (Table 4, participant quotes 1 and 2). A few participants read the label at the point of purchase and did not actively seek spoken information.

Receipt of spoken OTC medicine information

The majority of both Australian and UK consumers reported that no spoken information was actively provided when they purchased their most recent OTC product. Where received, spoken information seemed to be associated more so with symptom-based requests, first-time purchases, or if the consumer directed question(s) to the pharmacist or pharmacy staff member (Table 4, participant quotes 3 and 4). Where spoken information was reported (by a minority of participants), directions for use was the most often reported information received. Other spoken advice given included difference(s) between proprietary products, reassurance that the product would be appropriate for the presenting symptoms, use with other medicine(s), how long until symptoms would be relieved, side effect(s), action to be taken if side effect(s) or worsening of condition experienced, and expiry (UK). Interestingly,

a few consumers reported that little or no spoken information was provided by pharmacists with first-time purchases they made.

Perceptions on spoken OTC medicine information

Assistance from pharmacy staff or spoken information was declined by a few consumers for repeat purchases, where it was believed that there was no added value of spoken information (Table 4, participant quote 5). Participants believed that minimal information was provided if it was ascertained that the OTC product was a repeat purchase (Table 4, participant quote 6). However, a UK consumer voiced surprise from the lack of questioning associated with his most recent purchase, with no further spoken information provided.

Written medicine information (WMI) use post OTC medicine purchase

Consumers tended not to read OTC labels and/or leaflets if they were familiar with the medicine. However, when WMI was used, directions for use were commonly read on the label at home. Other information that was read (on the label, leaflet, or both) included medicine strength, indication(s)/purpose, warnings, side effects, if alcohol or other medicines could be used whilst taking the medicine, storage, ingredients (Australia), medicine name/brand (UK), expiry date (Australia). Where the leaflet was used specifically, consumers read information pertaining to side effects, warnings, directions for use (UK), use with current medicines or alcohol (UK), or medicine strength (UK).

OTC labels and leaflets were not often revisited. For the Australian cohort specifically, the small proportion who did revisit the accompanying OTC WMI at other points after its purchase tended to be first-time medicine users. Directions for use were the most common information revisited in both Australian and UK cohorts. In addition, an Australian consumer noted that information was revisited if the symptoms were not resolving (Table 4, participant quote 7).

Factors contributing to minimal use of OTC WMI

Lack of utilisation of OTC WMI was observed with consumer familiarity with the OTC medicine (Table 4, participant quotes 8 and 9). Additionally, the known benefits of the OTC medicine seemed to outweigh the perceived need to seek detailed OTC medicine information (Table 4, participant quote 10).

A UK consumer who was taking regular low dose aspirin based on their doctor's recommendation stated that *"because I've been told I would have to take it, I didn't really think there was any need to go into it." (UTP62-UK)*

Other reasons that contributed to the lack of OTC WMI revisitation included success in resolving the condition or symptoms, thus not requiring re-reading of the WMI, and/or short treatment duration.

Actual and perceived role of leaflets in self-management using OTC medicines

The majority of Australian consumers reported that they did not receive a leaflet with their most recent OTC purchase. In contrast, the overwhelming majority of UK consumers noted receiving a leaflet. Specifically, UK consumers commented that leaflet receipt was standard, where there was an inherent expectation that one would be available as a package insert.

Regardless of differences in leaflet receipt, many consumers in both Australia and the UK did not want a leaflet with their most recent OTC purchase. Reported contributing factors included:

- The consumer had experience and was familiar with the OTC medicine (i.e. repeat purchase) (Table 4, participant quote 11),
- Information needs were met by other information source(s), such as the label, and/or
- The medicine was regarded as essentially safe for use.

Conversely, some participants did want leaflets with their most recent purchase e.g. if unfamiliar with the medicine, or more self-management information was wanted (Australia). Other reasons included wanting to know about side effects, or in case of a change in medical conditions (UK) (Table 4, participant quote 12).

Although leaflets were not perceived as a desired OTC medicine information source in relation to their most recent purchases, some participants did indicate that leaflets could be useful and needed for first-time purchases (Table 4, participant quote 13). Specifically, leaflets were regarded as an information source to be utilised on an as-needed basis; for instance, in the event of any queries or problems encountered (Table 4, participant quotes 14 and 15). If an OTC medicine was effective or a doctor had "prescribed" its use, there was an assumption that the leaflet did not need to be read.

Discussion

Common trends in consumers' seeking, receipt, and use of OTC medicine information between Australia and the UK were evident. Australian and UK participants did not often read OTC labels and leaflets in detail, particularly for repeat purchases. When labels were read post purchase, directions for use were the most commonly read. Overall, consumers' familiarity with a product was associated with less active spoken and written OTC medicine information seeking. Furthermore, the degree of consumer-initiated interactions appeared to impact the provision of spoken information. Leaflets were not wanted by many due to consumers' perceptions of the safety of OTC medicine(s), but may have a more salient role for first-time purchases.

There are some study limitations to consider. As this was a qualitative investigation, the study findings are not generalisable, nor were they intended to be. However, they do provide insights into common behaviours associated with information seeking and use which should be considered in a self-management context. Despite discussions being centred on participants' most recent OTC purchases, a degree of recall bias may still be present, even with the specific interview session structure intended to help reduce its impact. Furthermore, as the study focussed on OTC purchases from pharmacies, consumers' experiences relating to purchases made on the Internet or from other retail settings were not explored. With the range of study participant ages and education levels, participant health literacy levels are also likely to differ within cohorts. However, as health literacy was not screened, those with poor health literacy may be underrepresented in this study.

Finally, voluntary participation in the study may have led to some degree of self-selection of the participants, potentially impacting the range of consumers interviewed.

A recent systematic review conducted by van Eikenhorst et al.[34] also noted inconsistencies in spoken information provision in pharmacies. Non-receipt of spoken information by the majority of consumers in relation to their most recent OTC purchase is an important finding of the present study in terms of pharmacy practice and the promotion of quality use of medicines. Although some previous studies reported the majority receiving spoken information for purchased OTC medicine(s),[7, 25] this may be related to the requirement for consumers to speak to the pharmacist to purchase the OTC medicine,[7] as these studies related to OTC medicines only available for purchase in pharmacies.[7, 25] From the present study findings, repeat OTC purchases in particular seem to be associated with limited spoken information provided by pharmacy staff and limited consumer information seeking. Thus, the interplay between spoken information provision and the degree to which it is dependent on consumer initiation of this exchange (via active advice seeking) has an influence on the OTC medicine information that is received and used by consumers. The influence of perceived OTC product familiarity on expectations about spoken exchanges with pharmacy staff were also echoed previously by parents and/or carers,[19] and was a primary reason cited by consumers for not receiving spoken advice.[25] Consumers may not always actively seek OTC medicine information from health care professionals, such as pharmacists, or in the pharmacy, as seen in both the present study and the literature.[8, 22, 26] This may be attributed to reasons such as a lack of perceived need,[8] the medicine had been used before,[22] or that consumers' information needs had already been met,[3] which is consistent with the current identified Australian and UK trends in OTC medicine information seeking behaviours. Importantly, suboptimal interactions between pharmacy staff and consumers may result in the inappropriate provision of OTC medicines.[35] Symptom-based requests are known to be handled more proficiently than direct product requests in a pharmacy setting,[36] with limited provision of spoken information also seen in relation to simulated OTC direct product requests.[37, 38] Ultimately, inconsistencies in spoken OTC medicine information provision and receipt may lead to suboptimal consumer self-management.

Reported patterns of OTC WMI use in the present study somewhat differed to previous research, where a clear majority of consumers have reported reading the label,[9, 11] leaflet (when available with the purchased OTC medicine),[8] or both.[15] However, this high OTC label readership was reported in relation to first-time OTC medicine purchases,[9, 11] rather than repeat purchases. The pervasive belief that OTC medicines are safe,[11] or not strong enough to be problematic,[3] could potentially encourage decreased OTC medicine information use for some, as reflected in why a leaflet was not wanted in this study. As consumers may take inappropriate doses or have inadequate understanding of self-management strategies specific to the condition for which OTC medicines are utilised,[39] this emphasises the importance of receiving information regardless of whether it has been sought. Information seeking behaviour is inherently dynamic; however, consumers may not realise the extent or nature of gaps in knowledge or understanding that would prompt them to seek information needed to facilitate safe self-management. Importantly, perceived familiarity or confidence in using an OTC medicine should not be mistaken for, or equated to, actual engagement in safe and appropriate OTC medication use in all circumstances. In addition, wider access to OTC medicines may not lead to maintained levels of appropriate use, as seen in the decline in the proportion appropriately using OTC ibuprofen as per the label since scheduling changes no longer restricted its sale to pharmacies only.[40]

Leaflets were not commonly reported as a routinely used or desired OTC medicine information source by Australian and UK consumers. When examining consumer perceptions on leaflets for OTC medicines, UK consumers' desire for leaflets was somewhat unrelated to past receipt or expectation of receiving one. In countries like Australia, limited compulsory leaflet availability for OTC medicines[28] may impact its potential role as an information source and increase the demands on the label to adequately convey key points. Therefore, limited perceived need or availability of leaflets heightens the need for OTC labels to be of high usability, in particular for first-time purchases. Key stakeholders such as regulators and the pharmaceutical industry have a responsibility to ensure the provision of high quality, user-friendly medicine information that is useful for consumers at all points in the treatment continuum.

Conclusion

Commonalities exist between Australian and UK consumers' reported spoken and written OTC medicine information seeking and use regardless of inter-country differences in the written information provided with OTC medicines. Consumers' familiarity with OTC medicine(s) appeared to moderate spoken information provision as well as consumer information seeking behaviours. Repeat OTC purchases were associated with reduced OTC medicine information seeking and use. Passive receipt of OTC leaflets did not always correlate to the information source being desired by consumers. Minimal spoken information provision at the point of purchase coupled with limited use of WMI for OTC medicines may impact medication safety in self-management. These observed trends in OTC medicine information seeking behaviours will be useful to consider when developing consumer-centred initiatives to strategically promote safe and effective self-management undertaken by consumers of OTC medicines.

References

1. Blenkinsopp A, Bradley C. Patients, society, and the increase in self medication. *BMJ* 1996; 312: 629-632.

2. Schondelmeyer SW. Economic aspects of switch. *Drug Inf J* 1990; 24: 57-66.

3. Harris Interactive Inc. Attitudes and beliefs about the use of over-the-counter medicines: a dose of reality; a national survey of consumers and health professionals, 2002.

4. Koslow S. *Consumer behaviour fact book: understanding consumers' use and attitudes towards OTC medicines, vitamins, minerals and supplements*. Sydney: Macquarie University, 2015.

5. Blom ATG, Rens JAL. Information about over-the-counter medication: the role of the pharmacy. *Patient Educ Couns* 1989; 14: 181-189.

6. Newby DA et al. Drug information for consumers: should it be disease or medication specific? Results of a community survey. *Aust New Zeal J Publ Health* 2001; 25: 564-570.

7. Simoens S et al. Patient experiences of over-the-counter medicine purchases in Flemish community pharmacies. *Pharm World Sci* 2009; 31: 450-457.

8. Albarrán KF, Zapata LV. Analysis and quantification of self-medication patterns of customers in community pharmacies in southern Chile. *Pharm World Sci* 2008; 30: 863-868.

9. Taylor J et al. Consumer over-the-counter usage and attitudes: a survey in one Canadian city. *Int J Pharm Pract* 2008; 16: 295-302.

10. Gray NJ et al. 'Health repertories': an understanding of lay management of minor ailments. *Patient Educ Couns* 2002; 47: 237-244.

11. Bolaños H. Responsible self-medication in Latin America. *Drug Inf J* 2005; 39: 99-107.

12. Gray NJ et al. Information sources used by parents buying non-prescription medicines in pharmacies for preschool children. *Int J Clin Pharm* 2011; 33: 842-848.

13. Birchley N, Conroy S. Parental management of over-the-counter medicines. *Paediatr Nurs* 2002; 14: 24-28.

14. Cuzzolin L, Benoni G. Safety of non-prescription medicines: knowledge and attitudes of Italian pharmacy customers. *Pharm World Sci* 2010; 32: 97-102.

15. Nabors LA et al. Reading about over-the-counter medications. *Issues Compr Pediatr Nurs* 2004; 27: 297-305.

16. Emmerton LM. Exploration of two risk scenarios in non-prescription medicine purchases. *Int J Pharm Pract* 2006; 14: 219-225.

17. Emmerton L. The 'third class' of medications: sales and purchasing behavior are associated with pharmacist only and pharmacy medicine classifications in Australia. *J Am Pharm Assoc (2003)* 2009; 49: 31-37.

18. Emmerton L, Shaw J. The influence of pharmacy staff in non-prescription medicine sales. *Int J Pharm Pract* 2002; 10: 101-106.

19. Boardman HF et al. Interactions between parents/carers of pre-school children and pharmacy staff when buying non-prescription medicines. *Int J Clin Pharm* 2011; 33: 832-841.

20. John DN, Evans SW. Residents' views and experiences of pharmacy questioning and advice relating to non-prescription medicine purchases. *Int J Pharm Pract* 1997; 5: 85-90.

21. Kelly FS et al. Does advice from pharmacy staff vary according to the nonprescription medicine requested? *Ann Pharmacother* 2009; 43: 1877-1886.

22. Taylor J. Reasons consumers do not ask for advice on non-prescription medicines in pharmacies. *Int J Pharm Pract* 1994; 2: 209-214.

23. Evans SW et al. Use of non-prescription advice offered to the public by community pharmacists. *Int J Pharm Pract* 1997; 5: 16-25.

24. Hassell K et al. Advice provided in British community pharmacies: what people want and what they get. *J Health Serv Res Policy* 1998; 3: 219-225.

25. Healthcare Management Advisors. Consumer perceptions on supply of and access to Pharmacy medicines. Australia: The Pharmacy Guild of Australia, Australian Government Department of Health and Ageing, n.d.

26. Ngo SNT et al. Appropriate use of non-prescription ibuprofen: a survey of patients' perceptions and understanding. *Int J Pharm Pract* 2010; 18: 63-65.

27. European Commission. Directive 2001/83/EC of the European Parliament and of the Council of 6 November 2001 on the Community code relating to medicinal products for human use. Brussels: European Commission, 2001.

28. Aslani P. Consumer medicine information conundrums. *Aust Prescr* 2007; 30: 122-124.

29. Britten N. Qualitative interviews. In: Pope C, Mays N, eds. *Qualitative Research in Health Care,* 3rd edn. Oxford: Blackwell Publishing Ltd, 2006: 12-20.

30. Author citation 2015 (in press).

31. Green J, Thorogood N. *Qualitative Methods for Health Research*, 3rd ed. London: SAGE Publications Ltd, 2014: 209-218.

32. Miles MB, Huberman AM. *Qualitative Data Analysis: An Expanded Sourcebook*, 2nd ed. Thousand Oaks: SAGE Publications Inc., 1994.

33. Guest G et al. How many interviews are enough?: An experiment with data saturation and variability. *Field Methods* 2006; 18: 59-82.

34. van Eikenhorst L et al. A systematic review in select countries of the role of the pharmacist in consultations and sales of non-prescription medicines in community pharmacy. *Res Social Adm Pharm* 2017; 13: 17-38.

35. Schneider CR et al. Evaluation of the supply of antifungal medication for the treatment of vaginal thrush in the community pharmacy setting: a randomized controlled trial. *Pharmacy Practice* 2013; 11: 132-137.

36. Benrimoj SI et al. Monitoring quality standards in the provision of non-prescription medicines from Australian community pharmacies: results of a national programme. *Qual Saf Health Care* 2007; 16: 354-358.

37. Schneider CR et al. Measuring the assessment and counseling provided with the supply of nonprescription asthma reliever medication: a simulated patient study. *Ann Pharmacother* 2009; 43: 1512-1518.

38. Kashyap KC et al. Management of over-the-counter insomnia complaints in Australian community pharmacies: a standardized patient study. *Int J Pharm Pract* 2014; 22: 125-134.

39. Guirguis K. The use of nonprescription medicines among elderly patients with chronic illness and their need for pharmacist interventions. *Consult Pharm* 2010; 25: 433-439.

40. Stosic R et al. Responsible self-medication: perceived risks and benefits of over-the-counter analgesic use. *Int J Pharm Pract* 2011; 19: 236-245.

Tables

Table 1. Core semi-structured interview protocol questions

Discussion point	Question(s)
Most recent medicine purchased	• What medicine did you buy to use/give to someone under your care?
Medicine information provision at the point of purchase	• When you were in the pharmacy about to buy it, what information was given to you about the medicine? • Who gave this information to you?
Written medicine information (WMI) provision	• Did you receive a WMI leaflet with the medicine you bought to use? • Would you have liked to receive a WMI leaflet with your medicine? Why?
Information use after the medicine had been purchased	• Once you bought the medicine, did you go home and read the information in the leaflet/on the box/both? • What were the key sections you looked at and why did you look at these sections in the leaflet or on the box? • Were there any other times that you needed to reread the box/leaflet? What did you look at?

444 Table 2. Summary of participant demographics

Demographic		Australia (n=37)	UK (n=39)	Total (n=76)
Gender	Male	19	19	38
	Female	18	20	38
Age (years)	18-29	10	8	18
	30-49	13	14	27
	50-69	12	10	22
	70+	2	7	9
Highest level of education attained	School Certificate/GCSE[a] (Year 10) or below	1	10	11
	Higher School Certificate/A Level[b] (Year 12) or college qualification	25	21	46
	Bachelor's degree or higher	11	8	19
Main language spoken at home	English	34	39	73
	Other	3	0	3
Country of birth	Australia	31	1	32
	UK	1	36	37
	Other	5	2	7

445 [a]GCSE = UK General Certificate of Secondary Education

446 [b]A Level = UK General Certificate of Education Advanced Level

447

448 Table 3. Most recent OTC medicine purchases categorised by type

OTC medicine(s) purchased	Australia	UK	Total
Analgesic(s), non-steroidal anti-inflammatories, musculoskeletal product(s)	12	22	34
Respiratory (cough/cold/flu/allergy) product(s)	15	8	23
Dermatological product(s)	4	4	8
Oral/ear/eye product(s)	2	3	5
Gastrointestinal product(s)	1	1	2
Vitamin(s)/supplement(s)	7	1	8
Other	1	1	2
Total[a]	42	40	82

449

450 [a]A few participants purchased multiple OTC medicines in their most recent transaction, thus
451 the total number of medicines purchases exceeded the total number of participants per
452 cohort (n=37 [Australia] and n=39 [UK]).

Table 4. Identified theme(s)/subtheme(s) and illustrative participant quote(s)

Theme(s)/subtheme(s)	Illustrative quote(s)
Active consumer seeking of spoken and/or written OTC medicine information	*Quote 1: "I have taken this medicine before so I don't even bother to ask the pharmacist. Because I know, uh, which section [of the pharmacy] it is [in]. I just scan [the shelves] and [think] 'Okay, yeah, this section.' I've read [the labels of] all the syrups there." (UTP20-AUS)* *Quote 2: "Paracetamol being such a, a well-known brand…… I wouldn't actually wish to know anything about it, because I know what I've gone for. I've got headache. I know what I'm going to buy: paracetamol. So I would just go pick it off the shelf and pay for it." (UTP51-UK)*
Receipt of spoken OTC medicine information	*Quote 3: "Once they know you've used it before, they don't tend to give you any instructions." (UTP09-AUS)* *Quote 4: "They say 'Have you taken it before?', which the answer is yes. Then obviously, they assume that if there's anything they should say to somebody taking it for the first time, I would already know that so … As I say, in general, it's just 'Have you taken it before? Are you taking anything else with paracetamol and codeine?' And 'Don't exceed the 4 a day of the tablets'." (UTP71-UK)*
Perceptions on spoken OTC medicine information	*Quote 5: "She offered to give me some advice, but I, I declined….. Because I've used those sorts of things before. So I didn't think she would be able to tell me anything I didn't know." (UTP41-UK)* *Quote 6: "They always ask me a sort of gateway type question; I can't remember what it is now. And I always say 'You know, so, yes. I've had it before.' And then it's just a matter of which size I want……. Once I've said I've… used it before, they don't tend to give any further information." (UTP09-AUS)*

Theme(s)/subtheme(s)	Illustrative quote(s)
Written medicine information (WMI) use post OTC medicine purchase	*Quote 7: "I think I looked at the box just a couple of times just to double check that it was the same thing because it didn't seem to be working….. Because I was like 'Damn you, cold sore. You're erupting on my face, still …'" (UTP27-AUS)*
Factors contributing to minimal use of OTC WMI	*Quote 8: "The first time around… on the advice of the chemist… I did it religiously and it was perfect. And since then, I've just taken them." (UTP03-AUS)*
	Quote 9: "No issues for me and I guess that's why I didn't speak to anyone. That's why I didn't look for any information because I'm familiar with the product. I'm familiar with the brand, I'm familiar with what it does to me and so I, I didn't really feel like I needed any more." (UTP07-AUS)
	Quote 10: "It's almost like lollies to relieve a sweet craving. I know they're going to work and I, I need them. It's more of a need than a desire to read anything. It's a desperation thing." (UTP03-AUS)
Actual and perceived role of leaflets in self-management using OTC medicines	*Quote 11: "I always buy the same brand. So unless there is something new that they've put in the leaflet then yes, it's probably a waste of paper. 'Cause I, I do keep… I mean I've got one from the first time I take it, as with everything that I've taken. But ah, in general after that, it's, it's no longer necessary." (UTP71-UK)*
	Quote 12: "Say if I had a stomach ulcer but the last time I took it, I didn't have a stomach ulcer. I would not have read that, because that was not relevant to me. Whereas, this time, I would've read the leaflet…… and see if it connects to me." (UTP54-UK)

Theme(s)/subtheme(s)	Illustrative quote(s)
	Quote 13: "As a new user, I probably would [want a leaflet]. You know, I'd want to know the effects… But because I've been using it for a number of years… it's just something that's in the way of the product." (UTP68-UK)
	Quote 14: "I rarely read the leaflets. It's only if I'm looking for something specific that I'll read a leaflet." (UTP09-AUS)
	Quote 15: "Um, I don't think it does any harm to have the leaflet because even if you've read it before you might not have kept it. So if you have any sort of weird reaction to anything, you can have the leaflet there. I think it's important to have a leaflet every time because in case you don't um … you haven't kept the last one." (UTP64-UK)