

Language barriers in the community pharmacy: a survey of northern and western Auckland

Emily Chang MBChB, DipPaed;¹ Bobby Tsang MBChB, FRACP;² Simon Thornley MBChB, MPH³

¹ Starship Children's Health, Auckland City Hospital, Auckland, New Zealand

² Waitemata District Health Board, Auckland

³ Section of Epidemiology and Biostatistics, The University of Auckland, Auckland

ABSTRACT

INTRODUCTION: Community pharmacists play an important role in increasing patient understanding of medication use. Lack of resources to facilitate communication with non-English speaking (NES) patients may be a communication barrier.

AIM: To identify obstacles and coping strategies of community pharmacists when counselling NES patients in Auckland's North Shore and West Auckland.

METHODS: A cross-sectional survey of 46 community pharmacies in West Auckland and the northern Auckland region was carried out in February 2009.

RESULTS: Community pharmacists frequently counsel NES patients (65% reported at least once a week). Use of bilingual staff was the most commonly employed strategy (78% of respondents) to communicate with these customers. Pharmacies that reported serving NES clients at least daily all had bilingual staff, compared with 70% of pharmacies with less frequent NES contact ($p=0.017$). No pharmacists reported using professional interpreting services. In our sample, telephone interpreting was the most preferred (63% of respondents) method of communicating with such patients, assuming that further services were made available.

DISCUSSION: Community pharmacists frequently serve NES patients, with limited access to interpreting services or translated resources. Although pharmacists have, in some way, adapted to the needs of their patients, our survey suggests that accessible professional interpreting services would further improve pharmacist/NES client interaction.

KEYWORDS: Communication barriers; community pharmacy services; medication errors

Introduction

Interest in language and cultural barriers in the medical context has increased recently in academic health care journals. Recent articles highlight the importance of providing satisfactory standards of care to non-English speakers in the pharmacy setting. Most have been carried out in North America, in which the Spanish speaking, Latino population is most frequently studied, although analysis of interactions with Asian peoples are becoming more commonly reported.¹⁻⁵

Poor communication carries potential adverse clinical consequences. Flores et al.¹ describe several cases in which inaccuracies made by

untrained, ad hoc interpreters may lead to drug dosing and administration errors. One case study described how an infant received 10 times the recommended dose of a barbiturate, due to the mother's limited understanding of English.²

The community pharmacist plays an important role in increasing patient understanding of medication use, especially at the point of dispensing. Language barriers potentially inhibit effective patient-pharmacist communication.

We speculated that pharmacists often encounter non-English speaking (NES) patients. One of the barriers may be a lack of resources to facilitate communication with such patients. We also

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CORRESPONDENCE TO: Emily Chang

Paediatric Palliative Care
Fellow, Starship Children's
Health, Auckland City
Hospital, PB 92024,
Auckland 1124,
New Zealand
echang@adhb.govt.nz

thought that ad hoc translators such as family members or bystanders may frequently be called upon to overcome language barriers.

The aims of our study were to identify common obstacles faced by community pharmacists when counselling NES patients, and to identify resources available to help overcome communication barriers. We also asked pharmacists which of a variety of different interpreting options they would prefer, if made available, and why they made such a choice.

Methods

Study design and sample

We conducted a cross-sectional, paper-based survey of all community pharmacies within the Waitemata District Health Board (WDHB) catchment area in February 2009. This is an administratively-defined geographic area from Rodney District in the upper North Island of New Zealand down to Auckland's North Shore and West Auckland. Both urban and rural areas are included in this sample, with most pharmacies located in metropolitan Auckland. In 2006, the census estimated population was 481 611.⁶

Ethnic groups residing in this area include European (57%), Asian (14%), Maori (9%) and Pacific people (6%). Asian peoples include Chinese, Korean, and Indian, amongst others. This population mostly resides in urban areas. The North Shore and West Auckland are home to 55.4% and 40.9% of Asian peoples respectively. Only 3.8% reside in the Rodney District, which is largely made up of rural areas.⁷ Migrants make up a significant part of the Asian population. For example, only 17.1% of Chinese people, 20.1% of Indian people and 6.7% of Korean people in this region were born in New Zealand.⁷ In contrast, 59.1% of Pacific peoples and 96.7% of the Maori population were born in this country. Korean peoples had the lowest level of English competency in the surveyed area, with 29.6% having no English language skills. Chinese people followed with 17.9% speaking no English. The Indian population had higher levels of English

WHAT GAP THIS FILLS

What we already know: New Zealand has a significant migrant population with English as a second language. Communication barriers increase the risk of treatment and medication errors.

What this study adds: Communication barriers are a significant problem for retail pharmacists. Although many have adapted to this problem, pharmacists have indicated that improved access to professional interpreting services is needed.

language skills with only 5.3% unable to speak any English.⁷

Mailing addresses for pharmacies were extracted from a database held by WDHB. The survey was sent out by mail with a follow-up letter, and, in the case of non-response, a follow-up was sent two weeks later.

Data

Pharmacists were asked to report how frequently they encountered NES patients and their likely ethnicity. Other information sought included knowledge and use of communication resources (translated information sheets, pictograms, ability to print medication labels in the client's native language, access to telephone interpreting services, Internet resources, or bilingual staff). Further, we enquired about potential obstacles to effective communication and how they were managed. Finally, pharmacists were able to suggest services they would prefer, if available. We asked pharmacists to rank these modalities and express reasons underlying their choice. The questions were presented in a multiple choice format with the ability to choose as many of the items as the pharmacist felt relevant. Free text responses were also possible (See the Appendix in the web version of this paper).

Statistical analysis

Responses were aggregated into numeric summaries and descriptive statistics reported. Chi-square or Fisher exact tests were used to test whether reported differences between pharmacies were likely to result from systematic or random

variation, with $p < 0.05$ regarded as statistically significant.

Results

Eighty-six eligible pharmacies were identified. After excluding duplicates (some pharmacies were owned by the same respondent), 84 remained. Forty-six pharmacists replied to our survey (response rate 55%). Divided by geographic area, 58% of respondents were located in the North Shore area and 42% in West Auckland (Table 1).

Respondents frequently reported serving NES patients, with 35% of pharmacists serving NES patients at least once a day. A further 30% reported serving NES patients at least once a week.

Chinese were the most frequently encountered client ethnic group with a significant language barrier. Almost all respondents (98%) reported serving NES Chinese patients. NES Korean patients were encountered frequently by 60% of respondents and Indian (34%) were the third highest group reported. As pharmacists were able to indicate as many ethnic groups as they desired in a free text field, all respondents indicated multiple groups. Therefore, the sum of the items exceeds 100%.

Resources available

Bilingual staff were the most common resource (78% of respondents) used for serving NES patients. Amongst these respondents, 46% employed bilingual pharmacists, with the remainder either pharmacy students, pharmacy technicians or retail assistants. The next most common strategy was the use of ad hoc interpreters, such as accompanying family members and bystanders. A small proportion of pharmacists (19%) reported handing out translated information sheets. A kit featuring translations of simple instructions and information in several different languages has recently been published and distributed by the Pharmacy Guild to its members. Only 13% of respondents reported ever using such a resource. We are aware of software that can print translated medication labels for patients, but none of our respondents indicated that they use it.

The most striking differences in responses between pharmacists were observed when they were divided by the presence (or absence) of bilingual staff. Pharmacists who reported serving NES clients at least daily, all employed bilingual staff, compared with only 70% of those with less frequent NES contact ($p = 0.017$). Also, pharmacists who employed bilingual staff were more likely to encounter Asian ethnic groups (Table 2).

Problems encountered

Counselling patients about correct medication use was the most commonly reported obstacle (89% of respondents). Individual pharmacists reported difficulty conveying instructions for unusual drug regimens (Table 3). For example, some medications are only taken once a week on a certain

Table 1. Ethnic groups and frequency of NES client encounters

Ethnic groups served	Number of respondents (%)
Chinese	45 (98)
Korean	28 (61)
Indian	16 (34)
Pacific	14 (30)
Asian not otherwise specified	13 (23)
How often respondent encounters NES clients	
At least daily	16 (35)
At least weekly	14 (30)
At least monthly	6 (13)
Less than monthly	9 (20)
Missing	1 (2)

Table 2. Characteristics of pharmacies divided by presence or absence of bilingual staff

Frequency that NES clients served	Bilingual staff n (%)		P-value
	Yes	No	
At least daily	16 (44)	0 (0)	0.02
At least weekly	10 (28)	4 (40)	
At least monthly	4 (11)	2 (20)	
Less than monthly	6 (17)	3 (30)	
Missing data	0 (0)	3 (30)	
Ethnic groups served			
Chinese	28 (78)	4 (40)	0.05
Korean	25 (69)	3 (30)	0.03
Asian—not otherwise specified	7 (19)	6 (60)	0.02

day. Similarly, changes in dosing or frequency were difficult to explain. Almost half of pharmacists (41%) surveyed reported evidence of probable poor adherence to drug regimens, such as failure to collect repeat dispensings.

Preferred interpreting services

Of the four proposed interpreting services, a telephone service was most frequently preferred (63% of respondents); with face-to-face interpreting the second most frequently preferred choice (28%). Pharmacists favoured telephone interpreting because they felt it would be easy to use, rapid and cheap. Face-to-face interpreting was rated ideal for accurate communication. However, respondents felt interpreters would be difficult to access at short notice and cost would limit their use. Reasons for not favouring either webcam or teleconferencing services, stated by pharmacists, were the cost of setting up specialised equipment and software, along with technical barriers.

Discussion

Our findings showed that community pharmacists in the region surveyed commonly encounter NES patients but infrequently use professional interpreting services. Lack of funding and/or knowledge about available services may be responsible.

Although services are available, our study indicates they are not used. For example, no respondent indicated use of Language Line, a user pays telephone interpreting service operated by the Office of Ethnic Affairs in Wellington.

Several respondents commented on the urgent need for a funded interpreting service. An example of this was given by a North Shore pharmacist, who wrote: “(We) would be extremely grateful for funded interpretation money or personnel, we have an extremely high number of Asian patients needing better services.”

Over the time our research was carried out, WATIS (Waitemata Auckland Translation & Interpreting Service, managed by WDHB’s Asian Health Support Services), was funded to roll out telephone interpreting services to

Table 3. Common problems encountered when counselling NES patients

Problem	n (%)
Personal details	17 (39)
Medication use	39 (89)
Adherence	18 (41)
Traditional medicine	7 (16)
Funding	4 (9)

primary health care settings with community pharmacies in the second phase. Alternatives will include face-to-face interpreting, teleconferencing and webcam services.

Our major finding was that pharmacists appear to address linguistic barriers by employing bilingual staff. Pharmacies that frequently saw NES patients were more likely to report the presence of staff with such skills. However, the direction of the observed association is uncertain, because, conversely, the presence of bilingual staff members may attract NES patients to the pharmacy.

If pharmacy staff and patients speak the same language, more effective communication is likely to follow. However, not all multicultural interactions would be covered in the region surveyed. For example, our survey did not ask which languages were spoken by bilingual staff. The association we found between Chinese, Korean or other Asian patients and employment of bilingual staff suggests that such staff mostly speak Asian languages.

Further evidence for this assumption comes from an analysis of the ethnic group of pharmacists. The Pharmacy Council states that registered pharmacists in New Zealand are most likely to be New Zealand European or Pakeha (58.3%), followed by Other European (10.3%). Of the non-European groups, Chinese pharmacists were most common (9.6%), followed by Indian (6.3%), then “Asian—not otherwise specified” (4.6%).⁸ In the 2006 census, 8.5% of the New Zealand population identified as Asian.⁶ No distinction was made between different Asian peoples

such as Chinese or Indian. If Chinese, Indian and “Asian—not otherwise specified” were all counted as Asian, that would make up a total 20.5% of registered pharmacists. Thus, Asian peoples appear over-represented amongst pharmacists, suggesting that bilingual staff are likely to speak Asian languages. Further research into how bilingual staff function in this setting may shed light on the quality of pharmacist–patient communication.

Our study was limited by responder bias. Of note, no pharmacies from the Hibiscus coast responded. This area has a low proportion of non-European peoples compared with the rest of the Auckland region. Less than 5% of Asian peoples in northern and western Auckland live in the Rodney District, which includes the Hibiscus coast.⁶ Responses may also be affected by recall error.

Previous studies of pharmacist communication have been conducted in the United States and Canada. One study surveyed community pharmacists in Milwaukee County, Wisconsin.³ Compared to respondents surveyed in the Waitemata region, Milwaukee pharmacists reported better knowledge of, and access to, translated material such as information sheets, medication labels printed in the patient’s native language and professional telephone interpreting services.

However, 78% of responding pharmacies in our survey employed bilingual staff and 72% used ad hoc interpreters; whereas in Milwaukee County, over 60% of pharmacies were either “completely unable”, or “only sometimes able” to communicate with patients in a language other than English.

Difficulty counselling a patient about proper use of medications was frequently reported in our study and evidence of non-adherence featured prominently (41%). Such a finding is consistent with North American research where non-adherence was the most commonly identified problem when NES clients were encountered.^{4, 5}

This study suggests community pharmacies have made some adaptation to cater for the NES

population. However, pharmacists have indicated that marketing of, and access to, professional interpreting services is required. Accurate communication between pharmacist and patient about correct use of medicines and potential adverse effects are likely to enhance treatment outcomes and prevent serious adverse events such as overdose. A telephone interpreting service is the preferred choice amongst those who returned our survey.

In response to our findings, WDHB WATIS has commenced a staged roll-out of interpreting services to all community pharmacies located in the Waitemata district. This means that all community pharmacies should have had access to funded professional interpreting services by the end of April 2010.

Conclusion

New Zealand has a growing population of NES residents who access health services. Community pharmacists frequently serve this population, with limited use of interpreting services or translated resources. Although these findings indicate that respondent pharmacists have at least partially adapted to the needs of their patients, if professional interpreting services were made accessible, improved communication, and drug safety are likely to result.

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COMPETING INTERESTS

None declared.

APPENDIX A: Study questionnaire

1. Which non-English speaking groups utilise your pharmacy?

2. How often on average would you serve a non-English speaking patient?

- ☐ At least once a day
- ☐ More than once a week
- ☐ More than once a month
- ☐ Less than once a month

3. What resources are available to you when serving or counselling non-English speaking patients?

- ☐ Translated patient information sheets
- ☐ Bilingual staff
- ☐ Patient information sheets available on the Internet
- ☐ Print medication labels in patient's native language
- ☐ Pictograms
- ☐ Other (please specify)

4. Which of the following strategies have you used when serving or counselling non-English speaking patients?

- ☐ Bilingual staff (please state position of staff, e.g. retail assistant, pharmacist and any relevant training)

- ☐ Ad hoc interpreters (e.g. patient's relatives, friends, bystanders)
- ☐ Language Line services
- ☐ Waitemata DHB interpreting services
- ☐ Other (please specify)

5. Which of the following common difficulties have you experienced when dealing with non-English speaking patients?

- ☐ Difficulty collecting personal details (e.g. name, address, community services card etc.)
- ☐ Difficulty taking medical history (e.g. medical conditions, current medications etc.)
- ☐ Difficulty counselling patients regarding proper use of medications
- ☐ Poor adherence to medicines regimen (please state how you became aware of this)

☐ Poor understanding of condition and/or treatment (please state how you became aware of this)

-
- ☐ Use of traditional or complementary treatments
 - ☐ Requests for drugs available overseas
 - ☐ Other (please specify)
-

6. The WDHB is looking to fund primary health interpreting services. The following options are being considered:

1. Telephone interpreting services
2. Face-to-face interpreting services
3. Teleconference interpreting services
4. Interpreting services via webcam

Please rank the above in your order of preference.

1. _____
2. _____
3. _____
4. _____

Please give reasons for your ranking. In particular, please include any potential advantages or disadvantages you see for each option.

Thank you for completing the survey.