Older persons' opinions about, and sources of, prescription drug information

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Objectives — (1) To explore older persons' opinions about their receipt of prescription drug information from general practitioners (GPs) and pharmacists, (2) to determine the information older persons wish to know about their prescription medication and the information sources they use, (3) to determine the opinions of older persons about prescription medication labels and patient information leaflets, and (4) to determine any significant differences between those aged 65-74 years and those aged 75 years and over.
Method — Data were gathered via 204 detailed in-home interviews completed between March, 1993, and November, 1995. Respondents were identified through GPs.
Setting — The study was conducted in Melbourne, Australia.
Key findings — The vast majority of respondents liked to receive verbal counselling from GPs and pharmacists about their prescription medication and the majority were willing to share responsibility for receiving that information. However, a small minority of patients seemed to receive little information from GPs and pharmacists about their prescription medication and had no real perception of a need for information. As might be expected, the item of information most desired by respondents was when and how to use the medication (89 per cent). This was followed by the condition for which the medication was prescribed (76 per cent) and side effects (72 per cent). For 90 per cent of respondents GPs were their greatest prescription drug information source; pharmacists featured highly as a secondary source (57 per cent of respondents). Almost all respondents (92 per cent) thought that the information pharmacists printed on prescription medication labels was adequate although numerous suggestions were advanced for label improvement. Seventy-six per cent of respondents were of the opinion that, when receiving a prescription medication that was new to them, an information leaflet written for the consumer about that medication would be helpful. The 75 and over age group were less enthusiastic about receiving such leaflets than the 65-74 age group (P=0.015).
Conclusion — Education programmes aimed at improving the quality use of medicines in Australia still need to encourage older persons to actively seek, and health professionals to volunteer, prescription drug information. Patient information leaflets are well accepted by older persons; however, it is important that the information be adequately explained.

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THIS paper reports on part of a larger study conducted to investigate the opinions and prescription medication use practices of a sample of non-institutionalised older persons and to establish any differences with age.[1] The study arose from the concern of many health professionals that there was a lack of understanding in the community about the correct use of medicines. This was despite the fact that, prior to this survey, there had been few formal studies conducted in Australia to investigate consumer opinions and medication use practices.

In 1992, Australia adopted the National Medicinal Drug Policy and was the first developed country to do so.[2] This policy aims to improve health outcomes for all Australians by

optimising the use of medicines. There are four arms to the policy, one of which is the quality use of medicines. Education campaigns are one of five key areas identified as critical components contributing to the quality use of medicines.[2] In order to maximise the effectiveness of education campaigns it was felt that a clearer understanding of consumer opinions and medication use practices in the Australian situation was needed.

Prescription medication was targeted for the study since this medication is generally more potent and is used to treat conditions of greater concern, thus there are increased risks associated with inappropriate use. It was also decided to limit the study to non-institutionalised older consumers as although drug use tends to be higher in health care institutions, the much larger number of elderly persons living within the community makes them the greatest "at-risk" group. In addition, age was chosen as an independent variable for analysis because there is some evidence in the literature to suggest differences in medication-related opinions and practices with age, in particular with regard to the desire for, and the receipt of, prescription drug information.[3-6] It was felt that differences between younger and older consumers may also translate to differences among older persons themselves. We found little information on this topic in the literature despite the growing number of very old persons living relatively independently within the community.

The objectives of the component of the study discussed in this paper are: (1) to explore older persons' opinions about their receipt of prescription drug information from general practitioners (GPs) and pharmacists; (2) to determine the information older persons wish to know about their prescription medication and the information sources they use; (3) to determine the opinions of older persons about prescription medication labels and patient information leaflets; and (4) to determine any significant differences between those aged 65-74 years and those aged 75 years or older.

Method

Six areas within metropolitan Melbourne were chosen for sampling, selected to contain a high proportion of older residents from diverse ethnic and socio-economic backgrounds.[7] Eligible patients were defined as those 65 years of age or older, using at least one prescription medication on a regular basis and responsible for administering their own medication. All GPs whose surgeries were located within the sampling area (n=128) were asked to participate and to refer up to 10 eligible patients for interview. GPs were asked to approach consecutive eligible patients who entered their practice for consultation on the day after receiving an information package explaining about the study and a follow-up telephone call from the primary researcher, to follow through with any questions concerning the study. The use of a trusted intermediary (GP) was considered likely to help prospective respondents establish the merits of the project, thus enhancing response rate. For patients who agreed to participate, the GPs provided the researcher (prior to interview) with the details of those patients' relevant medical history and current medication.

Personal interviews were conducted in respondents' homes by the first author of the study. Preliminary and formal pilot studies were conducted, the latter of which involved 40 patients. The final survey instrument comprised two parts: a detailed structured interview schedule and a medication assessment record. Part one was developed from a US study commissioned by the American Association of Retired Persons,[4] amended to reflect the Australian situation and the specific aims of this study. Part two was used to record details of prescription medication in respondents' homes and to validate certain answers given in the interview schedule. The interview schedule comprised 125 items, although not all were relevant to each case. The medication assessment record comprised 27 items. The additional comments respondents made to questions were recorded verbatim and resulted in a source of qualitative data that was used to supplement the quantitative findings. A representative selection of comments relevant to the issues addressed have been included in this paper. All except three interviews were conducted in English.

Data were analysed using the Statistical Package for the Social Sciences (SPSS), Windows version 5.1. Chi-squared tests and Mann-Whitney U tests were used to analyse nominal and ordinal data respectively, with a critical significance level of 0.05. Several null hypothesis were tested: that there is no difference between "younger" and "older" older persons with respect to (1) wanting more information from GPs about their prescription medication, (2) wanting more information from pharmacists about their prescription medication, (3) having within the last few years sought the advice of a pharmacist about a prescription medication, (4) perceived adequacy of the information pharmacists print on prescription medication labels, and (5) perceived helpfulness of patient information leaflets.

Results

Demographics A third of GPs approached (42) agreed to identify patients for interview, and referrals were received from 32 (25 per cent of the total population). The majority of GPs who referred patients were male (74 per cent). There was no significant difference in proportions of GP referrers and non-referrers in regard to gender. Ninety per cent of patients approached by GPs for the main study agreed to have their

Table 1: Respondent demographics	
Characteristic	Percentage of patients (n=204)
Aged between 65 and 74 years	54
Aged 75 years and over	46
Female gender	70
Widowed	45
Lived alone	46
Partial secondary education only	78
Concessional beneficiary*	95
Born overseas	14
Spoke language other than English at home	9

*Concessional beneficiaries are eligible to receive prescription medication at a uniform copayment price ($A2.60 per item at the time of the study) through the Commonwealth Government's Pharmaceutical Benefits Scheme (PBS)

names forwarded to the researcher, 3 per cent of whom subsequently refused interview, giving an overall response rate for patients of 87 per cent. Two hundred and four interviews were conducted between March, 1993, and November, 1995. Interviews took 35 to 90 minutes to complete, with the mode being around 45 minutes. The demographic characteristics of respondents are summarised in Table 1.

The number of prescription medications used by respondents on a regular basis ranged between one and 16, with a mode of three (mean=4.5; SD=2.8). In addition, more than 80 per cent of respondents had prescription medication to be used when necessary. For regular daily medications, by far the most common therapeutic category was cardiovascular (272 medications), followed by genitourinary (106) and central nervous system (CNS) agents (94). Medications used on a "when required" basis were most commonly CNS agents (143), alimentary drugs (73) and dermatologicals (61). Respondents were also asked about their major health problems (mean=3.3), which were compared with the notes given by the GP and any discrepancies explored with the patient. Cardiovascular conditions (other than hypertension) were most commonly mentioned (163 diseases), followed by hypertension (116) and rheumatic diseases (86).

Opinions about information received In order to explore opinions about communication between respondents and their GP and their pharmacist, respondents were asked the following questions. The questions were asked in the first instance with regard to the GP (as is illustrated) and in the second instance with regard to the pharmacist: "How do you find talking about your prescription medications with your doctor?", "How satisfied do you feel with the information your doctor gives you about your prescription medications? Looking at the card [provided] would you say that you are always, most times, sometimes, rarely or never satisfied with the information they give?" and "Would you like to receive more information from your doctor about your prescription medication?"

The majority of respondents perceived a need for at least some information from their GP and pharmacist about their prescription medication, and in many cases were willing to share responsibility for receiving that information: "I think it's a matter of yourself too, whether you ask questions. I've learnt to ask a bit now" or "I wouldn't say always [satisfied with the information given] but once again that's probably me. I'm given information but then I don't think to ask other questions. I get home and I think 'I should have asked that'."

However, for some respondents there seemed to be little information communicated with GPs and pharmacists about their prescription medication and no real perception of a need for more: "I never ask the doctor for information. I just take it and if I find it's not doing me any good then I just knock off taking it."

In some cases, decisions about what information to provide, if any, were left to the GP: "I don't really ask a lot of questions. I think the doctor and the pharmacist should know what they're doing" or "She [GP] doesn't seem to give me much information. She just tells me to take them. I just do what the doctor tells me and that's it. I've got such faith in her you see."

Some respondents felt that it was not their role to ask questions of the GP about their prescription medication: "I wouldn't ask. I would just take what she prescribed. If there was any trouble then I would mention that." There were occasional perceptions of not knowing enough to ask questions: "I'm afraid I don't know enough about tablets to ask questions. I just leave it to the doctor." Another point raised was that asking questions would be to query the doctor's decisions, and that this was not the right thing to do: "I don't discuss them with him very often. I don't question his decisions or his choice of medication."

Comments made in regard to communication with pharmacists very much reflected respondents' perceptions of pharmacists' role in the medication process. Most respondents perceived pharmacists as having at least some role in the provision of prescription drug information: "She's very good. She generally tells me how to use it" or "If I'm not [satisfied] I just ask him. They're very good." However, in a few cases pharmacists were perceived as mere suppliers of prescription medication, with little or no role in the provision of prescription drug information. The following comment represented the extreme case: "I don't talk to them about it. They just make it up. They're the pharmacy. It's no good talking to them about it. I talk to the doctor."

In general, it appeared that respondents exchanged less information with pharmacists than with GPs about their prescription medication. It also appeared that respondents generally placed

higher expectations on their GPs than on their pharmacists to give them the information they needed to know about their prescription medication. When GPs did not provide information, they were considered not to be fulfilling their role whereas if pharmacists gave information, they were considered to be obliging. Overall, 94 per cent of respondents said they were "always" or "most times" satisfied with the information given by GPs and 95 per cent made similar remarks in regard to pharmacists. Only 16 per cent of respondents said they would like more information from GPs about their prescription medication and only 10 per cent said they would like more information from pharmacists. There was no significant difference between the older and younger age groups with respect to wanting more information from either GPs or pharmacists about prescription medication.

Table 2: Information respondents desired about prescription medication

Information	Percentage of respondents* (n=204)	
	Before prompting	After prompting
Nothing in particular/else	8	4
Name of medication	3	51
Condition for which it was prescribed	37	39
When and how to use the medication	11	78
For how long to use the medication	3	33
Side effects	44	28
Action to take if side effects occur	2	19
Expected outcome of using medication	17	12
Ways to assist condition other than with medication	1	38
Availability of cheaper brands of same medication	0	27
Interactions with other medications	4	28
Other	13	1
Don't know	2	1

* Sum >100 per cent due to multiple responses

Information desired Respondents were asked "When you are prescribed a medication for the first time, that is a medication you have not used before, what information do you like to know about that medication?" They were then given a list of information points, which were read by the researcher, and asked to indicate if there was anything else they might like to know. Information respondents mentioned both before and after prompting is listed in Table 2, according to the order in which it was presented. When and how to use the medication (89 per cent), the condition for which the medication was prescribed (76 per cent), and side effects (72 per cent) were most often mentioned.

Without prompting, some respondents had difficulty in coming up with any points of information they liked to know about their prescription medication. Those who were able to offer some suggestions most commonly mentioned "side effects", although occasionally respondents commented specifically that they did not wish to know about side effects: "The first thing you think about is side effects. A little ignorance doesn't hurt. I don't want to know. It makes you worry excessively." Previous experience with side effects tended to encourage interest. Those who had rarely or never experienced side effects tended to be less interested in knowing about them. Some respondents believed that if side effects existed they would be informed, although the reluctance of GPs and pharmacists to communicate information about side effects was occasionally acknowledged.

When the list of information options was shown to respondents, almost all made some comment about extra information they would like (Table 2). A few respondents who said they were not interested in knowing the name of the medication commented that the information "wouldn't mean much" to them. For the option "The condition for which the medication was prescribed", respondents made comments such as "I feel that I know why", because the purpose of the medication was what prompted them to see the doctor in the first place. In regard to the option "For how long to use the medication," most respondents assumed it would be until the course was completed or for the rest of one's life, although it appeared that in many instances this information had not been explicitly communicated. Occasionally comments were made about the benefits of knowing this information, though one respondent was of the opinion that it would be impossible to know this from the beginning. In regard to the option "What should be done if side effects occur," most respondents said they would either stop using the medication or consult a medical practitioner. Occasionally contact with a pharmacist was mentioned. For the option "What medication should not be used in conjunction," most respondents said they relied on the knowledge of their GP. Those who used few medications tended to perceive that such information would be of little importance to them personally.

Sources of prescription drug information Respondents were asked "From where do you obtain most of your information about your prescription medication?" Almost all indicated that GPs were their greatest information source; only six respondents mentioned their pharmacist (Table 3). Respondents were then read a list of various prescription medication information sources and asked to indicate if they had ever used this source for information about prescription medication. Including primary and secondary sources of prescription drug information, all respondents mentioned their GP and 62 per cent mentioned their pharmacist. Pharmacists were most often seen as a supplement to the GP. Only occasionally were pharmacists seen as a first point of contact before deciding whether or not to consult a GP.

Respondents were asked "Thinking back over

the last few years, can you remember ever having asked a pharmacist for advice about a prescription medication?" Forty-one per cent of respondents indicated they had sought the advice of a pharmacist about a prescription medication. There was no significant difference with age. The reason most commonly given by respondents who had never requested the advice of a pharmacist was that, in their opinion, the GP was the one person to tell them about their prescription medication. Again, some respondents perceived that asking advice of the pharmacist about prescription medication would be to query the GP, and that this was not the right thing to do. A few respondents said that, while they had no objection to the idea of asking a pharmacist for advice, they had simply never thought of doing so. Others were not interested in further information from a pharmacist, mostly because they were of the opinion that their GP had adequately explained their prescription medication. One respondent was concerned that if conflicting messages were received, this may create confusion.

After GPs and pharmacists, the media was the next most commonly mentioned source of prescription drug information. Most respondents clarified their perception of its appropriate role in relation to other sources, occasionally expressing strong opposition to the media as a source of prescription medication information. Friends and family were also commonly mentioned sources. Respondents said they mainly discussed with friends and family the purpose of their medication, how it was perceived to be helping their condition and side effects. Occasionally there were comments about others' attempts at recommending treatments or courses of action. A few respondents expressed reservations about discussing prescription medication with friends. Five respondents were themselves retired nurses. A further two had asked a nurse for information about prescription medication, one when in hospital and the other when visited by a district nurse.

In terms of books, three respondents who were retired nurses had older copies of *MIMS*; some had books written for the lay public. Several respondents expressed concern about lay consumers having their own reference sources for information about prescription medication, because of a perceived inability to understand the information. One respondent commented: "You start looking up things and you think 'I've got this and I've got that.' It's best to leave it up to the doctor. I don't think it's wise for anybody to have too much information about medication because they say 'You should take this or that' and they are not doctors."

Prescription medication labels Respondents were asked "How do you find the information pharmacists print on prescription medication labels? Looking at the card, would you say that it is always, most times, sometimes, rarely or never adequate for you?" Almost all respondents (92 per cent) were of the opinion that the information was "always" or "most times" adequate. Seven respondents felt that it was only "sometimes" adequate, one felt it was "rarely" adequate and one felt that it was "never" adequate. There were no significant differences with age. Two respondents were unable to read the labels due to sight problems and a further two were unable to read them because of language barriers. Although there was evidence of some reliance on labels, there were also numerous comments about rarely or never reading them. Several respondents said they felt the information printed on labels was adequate because they already knew how to use their medication or because they followed what their GP had explained.

Respondents were also asked "Are there any ways in which you think the labels could be improved?" Suggestions for label improvement are summarised in Table 4 and were most often related to content. Some comments were made about prescription medication being labelled "take as directed" when either the doctor had not explained how to use the medication or the doctor had explained but the respondent had for-

Table 3: Sources of prescription drug information

Sources of information	Percentage of respondents (n=204)	
	Greatest source	Ancillary* source
GP	90	8
Pharmacist	3	57
GP and pharmacist	2	n/a
Nurse	0	7
Naturopath or alternative health practitioner	0	4
Friends or family	1	27
Family member who is a health professional	1	13
Newspapers/magazines	0	47
Television	0	29
Radio	0	21
Books	2	8
Other	2	0

* Sum >100 per cent due to multiple responses

Table 4: Ways in which prescription medication labels could be improved

Improvement	Percentage of respondents* (n=74)
Larger print	31
Darker print	19
Include condition	11
Don't like "as directed"	16
Don't like label covering manufacturer information	15
When to take with respect to food	12
Morning and evening rather than twice daily	4
Clearer directions	4
More warnings about side effects	4
More warnings about interactions	1

* Sum >100 per cent due to multiple responses

gotten. Comments were also made about directions being ambiguous or lacking comprehensiveness. Several respondents had written the condition for which they were using the medication on the containers.

Many respondents commented on difficulties older people may have in reading labels because of print size or clarity. Several also made comments about labels covering manufacturers' information, in particular expiry dates on smaller bottles. Several respondents commented that expiry dates were in general difficult to read. One remarked that they were often small and sometimes the stamp was simply an indentation in the box, with no contrasting colour. Occasionally respondents commented on inconsistencies between the directions printed on labels and the dose they were actually using. One said she always checked to ensure the information was consistent with what she had been given previously. One respondent who spoke no English commented that her inability to understand labels meant her having to rely on memory of the directions given by her GP.

Patient information leaflets Patients were given an example of an information leaflet relating to oral amoxycillin (Figure 1). They were informed "Some pharmacists give this type of information to patients when they are receiving a prescription medication for the first time." The researcher then read through the information included on the leaflet in conjunction with the respondent and asked: "If you were to receive a prescription medication for the first time, that is a medication you had not used before, how helpful do you think this type of information would be to you personally? Do you think very helpful, somewhat helpful or not that helpful to you personally?" As with prescription medication labels, four respondents were unable to read patient information leaflets, two due to sight problems and two because of language barriers. Of the remaining 200 respondents, 61 per cent said that if they were to receive a prescription medication they had not used before a leaflet about that medication would be "very helpful". A further 15 per cent were of the opinion that a leaflet would be "somewhat helpful" and the remainder felt that it would be "not that helpful" to them personally. The younger age group were significantly more likely to report the information as being helpful to them personally (P=0.015).

Some very positive statements were made about the value of prescription drug information leaflets. There was sometimes a perception that leaflets would improve consumer knowledge and understanding of prescription medication, also that they would help with remembering what had been communicated verbally by health professionals. In addition, benefits were acknowledged in assisting with the recognition of adverse effects. There was evidence that leaflets may be particularly helpful to certain groups of people, for example those with hearing problems. Preference was expressed for leaflets with reasonable print size. Concerns about leaflets most often related to a perceived inability to understand the information, and that if leaflets were to be given, it was important that the information be explained so as not to cause unnecessary anxiety, particularly in relation to side effects. Several respondents commented about having become concerned after reading information leaflets that were given without verbal explanation. There was also concern that leaflets may create confusion if conflicting messages were received from health professionals. There was some perception, occasionally concern, that leaflets might be used as a substitute for verbal counselling.

Twenty-four per cent of respondents were of the opinion that leaflets would be of little assistance to them personally. The reasons most commonly given were that the information provided by GPs and pharmacists was usually adequate and that there was nothing on the leaflet that could not be explained by a GP or a pharmacist. A few respondents felt they already had sufficient knowledge about prescription medication, which they had acquired through experience with its use. Some doubted they would ever read the information. Others were of the opinion that leaflets would be of little assistance because they used so few medications. Occasionally, respondents perceived that to request a leaflet would be indicative of a lack of faith in their GP, in the same way as they viewed requests for verbal in-

PATIENT INFORMATION LEAFLET

From the Victorian College of Pharmacy dispensary for:
Mrs P Smith
17 Minnie St
Brunswick VIC 3056
01/04/93
You have been prescribed AMOXYCILLIN 250mg capsules.

AMOXYCILLIN is an antibiotic from the penicillin family and is used to treat a variety of infections.

These capsules have been prescribed for you to take THREE times daily for SEVEN days. It is best to space the doses evenly throughout the day, so you should take ONE CAPSULE about every EIGHT hours.

It does not matter whether you take these capsules before or after food. It is important though, that you finish the course even if you feel better after a few days. This is to ensure that the infection clears completely.

AMOXYCILLIN capsules are usually well tolerated and few persons experience side effects. However, if you do develop a rash or severe diarrhea, or any other symptoms you feel may be due to this medication, then you should advise your doctor or pharmacist as soon as possible.

Figure 1: Details of the patient information leaflet

formation. Others did not mention the faith aspect explicitly but commented that the reason they did not need the information was because they always acted in accordance with the directions of the doctor. One respondent was of the opinion that if one were to receive a new prescription medication, the GP and not the pharmacist would be responsible for the provision of this type of information. Another felt the information should be supplied only upon the request of a doctor. Two respondents perceived leaflets as being necessary only if one had problems with memory. Several respondents who spoke little or no English said they would welcome leaflets in their own language.

Discussion

There are several limitations to the study, one being the potential for selection bias. Medical practitioners who agreed to identify respondents may have differed from those who did not in important characteristics not identified, for example, they may have had better relationships with their patients than those who refused to participate. In addition, although the importance of not being selective with the patients approached was emphasised in the procedures sent to medical practitioners to be adopted for the identification of patients, the potential for selectivity remained. If medical practitioners tended to refer patients with whom they had better relationships or whom they saw as being more adherent, any problems detected would be likely to represent an underestimate of the true situation. The problem of selecting more motivated respondents is common to all surveys requiring informed consent. However, in this case we believe that the effect was minimised due to the high response rate from older persons who were approached to participate.

An additional potential limitation of the study is that the data were collected over more than two years and during this time there were gradual increases in the number of information leaflets included in dispensed medications to consumers, officially now referred to in Australia as Consumer Medicine Information (CMI). Also, further changes have taken place since the end of the data collection period and the publication of this report as more information has become available, so that by now the majority of older consumers probably would have received such a leaflet on at least one occasion. However, the number of products with accompanying CMI in Australia is still relatively low and even when CMI is available for a product there is no guarantee that the patient will receive it.

In general, respondents appeared content with the information given by their GPs and pharmacists about their prescription medication. This result is surprising in the light of the numerous other US and UK studies which have suggested a strong desire by consumers for more prescription drug information from medical practitioners and pharmacists.[3,8-11] However, for pharmacists it is consistent with the comments of Krska *et al* in their study of 267 patients in Scotland, where it was reported that despite receiving less prescription drug information than was expected, patients were generally satisfied with their pharmacy encounter.[12] The differences in findings between studies may be due, at least in part, to the way in which the survey questions were asked. Respondents in the current study were first asked how they found talking about prescription medications with their GPs and pharmacists. They were then asked how they found discussing medication-related problems with them, and whether or not they were satisfied with the information given, before being asked if they would like to receive more prescription drug information. Exploring the communication situation as perceived by the respondent before asking if he or she desired more information may be less likely to elicit a "yes" answer than if respondents were asked the question directly. A second explanation for the difference in findings may be that consumers in Australia receive more information from GPs and pharmacists about prescription medication than do consumers in the UK or the US. No figures could be found to compare the rate and/or content of counselling given by medical practitioners and/or pharmacists in the US or the UK with those in Australia, however there is evidence of differences between the US and the UK,[13] and Ortiz *et al* found pharmacists in Australia to be generally pro-counselling.[14] A third factor may have been differences in age among the survey groups, since this study found that the persons aged 75 or older were less likely to feel that information leaflets would be helpful to them, although they were no more likely than the younger age group to want more information from their GPs and pharmacists.

The type of information respondents wanted about their prescription medication is consistent with the findings of some, but not all previously published studies. Most have shown information about medication related side effects to be a priority for consumers.[3,4,11,15,16] The strong desire for information on side effects found in the current study was emphasised in all questions that probed this topic. Respondents appeared to take comfort in knowing what to expect in so far as side effects were concerned. It was also found that previous experience with side effects tended to encourage interest. Enlund *et al*, in their survey of 623 respondents taking antihypertensive medication, made a similar finding: among those who had experienced adverse effects and symptoms related to hypertension, 57 per cent expressed a need for more information about side effects associated with antihypertensive medication whereas only 30 per cent of those who had

no such experiences indicated a need for more information.[5] Although in general there was a high demand for information on side effects, a few respondents had reservations about being informed about potential adverse effects because they felt that it may cause them unnecessary concern. Such comments emphasise the importance of appropriate communication techniques when imparting this type of information and ensuring that consumers understand the relative risks involved.

Comments about the option "for how long to use the medication" suggest a need for greater communication in this area. It was commonly assumed that medication was to be taken until finished or for the rest of one's life, although in many cases it appeared that this information had not been explicitly communicated. Enlund *et al* reported a need for advice on the length of therapy.[5] McMahon *et al* reported that around half of the respondents they surveyed (n=154) were given information on how long to use their medication.[17] However, patients in this study were selected on the basis of the type of medication prescribed, and the sample included a large number of persons using short-term medication. Most medications used by respondents in the current study were long-term. Also, the sample McMahon *et al* surveyed comprised adults of all ages and there is some evidence that older persons may receive less information from health care professionals than do those in younger age groups.[6] In regard to the option "what medication should not be used in conjunction," most respondents said they relied on the knowledge of their GP. Such comments emphasise the importance of an accurate list of patients' medications, both prescription and non-prescription, being available to both the prescriber and dispenser.

That medical practitioners were respondents' greatest source of prescription medication information and that pharmacists featured highly as a secondary source is consistent with the findings of other researchers.[9,10,18-22] In regard to the provision of prescription drug information, the pharmacist was most often seen as supplementary to the GP. It has been suggested that pharmacists need to promote themselves more as an information source. Campaigns such as MEDAWARE, including the Society of Hospital Pharmacists of Australia phone-in day, have attempted to do this, and according to evaluations, with some success.[16,23] However, if the majority of older persons rarely ask pharmacists about their prescriptions, promoting pharmacists as a source of prescription drug information may be more successful if they make an effort to increase prescription medication counselling. This would confirm in consumers' minds that pharmacists have the knowledge to answer questions and that provision of prescription drug information is an integral part of their responsibilities.

Few respondents in the current study cited avenues other than a medical practitioner or pharmacist as a primary source of prescription drug information, though they commonly mentioned friends and the media as secondary sources of prescription drug information. Both Anderson-Harper *et al*[19] and Pequet *et al*[4] reported similar findings. The low reporting of information sources other than health professionals, particularly as primary sources of prescription drug information, may be failure to recognise other influences or reluctance to admit them. Dolinsky, in her qualitative study of eight older women using prescription medication, found that beliefs formed from information in the popular press were strongly held.[24]

Labels appeared to be an important source of information about how to use prescription medication for the majority of respondents. Most suggestions for improving labels could be easily satisfied by pharmacists, although the most commonly mentioned idea for improvement, larger print, is more difficult. It has been suggested that verbal reiteration of label information may assist patients with remembering,[25] although one respondent found this condescending. There was also a strong desire for more specific information to be included on labels. In contrast, some respondents commented that they rarely read labels, supporting the comments of Raynor that consumers need to be encouraged to do so.[26] Drawing attention to labels at the time of handing over the medication is an obvious way of encouraging this.

Several respondents expressed frustration at not being able to read expiry dates on smaller bottles because they were covered by a pharmacy label. Size of some bottles make it difficult to solve this. Flagging the labels is one option. Manufacturers should be encouraged to supply products in containers that are large enough to include a pharmacy label. Several respondents commented that expiry dates, even when exposed, were often difficult to read. A visible expiry date is particularly important for medications used on a "when required" basis because the consumer may use them only rarely. It may be worthwhile mandating that manufacturers include expiry dates that are of reasonable size and in a contrasting colour so that they are easy to read.

The number of respondents who said they felt information leaflets would be helpful is consistent with the findings of most other researchers[11,17,27] though slightly higher than reported by Sutton *et al*.[9] The slightly lower demand for leaflets reported in some studies might have been a result of differing survey questions or a function of respondents' previous experience with information. An important finding of this study is that persons aged 75 years or older were less likely to feel that information leaflets would be helpful to them personally. One reason for this may be greater experience with the use of

prescription medication although other factors such as age cohort are also likely to be important.

Concerns expressed about leaflets most often related to a perceived inability to understand the information. Several respondents made comments about having become concerned after reading leaflets from the manufacturer that were enclosed in dispensed medication but were not explained to them by a pharmacist, particularly in regard to adverse effects. This issue has been raised previously[28,29] and emphasises the importance of leaflets being used to reinforce and augment verbal counselling, and not as a replacement. The comment of some respondents, that they would not bother to read leaflets, also emphasises the need for pharmacists to explain important information. Several respondents emphasised the importance of large print size for leaflets. Livingstone reported that the small print size was a common complaint among the 20 older persons she interviewed about their views on information leaflets from community pharmacies.[30] As older people are the largest consumers of prescription medication, print size of leaflets is an important consideration.[26]

Greater consideration should be given to the information needs of people of non-English speaking backgrounds. It is recognised that some consumers who have difficulty reading English will also have difficulty reading their native language, although a booklet of label translations may be of benefit to many patients of non-English speaking backgrounds. Among the few respondents in the study who spoke little or no English, there was some demand for leaflets in their native language. In reality, only pharmacists who spoke the language in which the leaflets were written would be able to distribute them effectively, reinforcing the benefit of a register of pharmacists who speak languages other than English.

In conclusion, the findings of this study suggest that education programmes are needed to encourage older persons to actively seek information and health professionals to volunteer more information about prescription medication. Older persons require education to make them more aware of what to ask about their prescription medication. The results of the study further emphasise the importance of accurate and specific labelling of prescription medication as well as patient counselling to reinforce label information and the interpretation of leaflets. The findings suggest that leaflets would be well accepted, although for the older person greater consideration may need to be given to print size. The mandatory inclusion of consumer medicine information leaflets now with all newly registered and dispensed medications in Australia, and the likelihood of this situation for other dispensed medicines as well in the near future, provides opportunities for pharmacists to demonstrate their knowledge and expertise in terms of drug use and to improve awareness of their extended role among older people.

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