

## Pain Management

## Managing Complex Medication Regimens: Perspectives of Consumers with Osteoarthritis and Healthcare Professionals

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The disease course of osteoarthritis is unpredictable, and symptoms can vary daily.<sup>1</sup> This unpredictability becomes even more complex when more than one chronic condition is involved, resulting in high utilization of healthcare services and polypharmacy.<sup>2-4</sup> Failure to manage medications appropriately can lead to inadequate symptom relief, with associated personal, health, and economic problems.<sup>5</sup> For example, 2.4–3.6% of all Australian hospital admissions occur because of inappropriate use of medications,<sup>6</sup> while in the US, 0.8–4.7% of hospital admissions have been attributed to medication-related problems.<sup>7-10</sup>

We sought to examine medication management for osteoarthritis and other chronic conditions from the perspectives of community-dwelling consumers and healthcare professionals, using a qualitative approach. A qualitative approach can provide comprehensive understanding of how consumers make decisions about their medications.<sup>11-13</sup> An extensive synthesis of 37 qualitative studies of medicine-taking practices revealed consumer preference for taking as few drugs as possible due to fear about long-term adverse effects.<sup>11</sup> The synthesis also showed that previous studies involved people's experiences of individual drug classes, such as antiretroviral agents, antihypertensives, and psychotropic medicines. In the synthesis, there was little evidence that past work addressed how

**BACKGROUND:** Managing medications is complex, particularly for consumers with multiple coexisting conditions for whom benefits and adverse effects are unpredictable and health priorities may be variable.

**OBJECTIVE:** To investigate perceptions of and experiences with managing drug regimens from the perspectives of consumers with osteoarthritis and coexisting chronic conditions and of healthcare professionals from diverse backgrounds.

**METHODS:** Using an exploratory research design, focus groups were formed with 34 consumers and 19 healthcare professionals. Individual interviews were undertaken with 3 community medical practitioners.

**RESULTS:** Consumers' management of medications was explored in terms of 3 themes: administration of medications, provision of information, and the perceived role of healthcare professionals. In general, consumers lacked understanding regarding the reason that they were prescribed certain medications. Since all consumer participants had at least 2 chronic conditions, they were taking many drugs to relieve undesirable symptoms. Some consumers were unable to achieve improved pain relief and were reluctant to take analgesics prescribed on an as-needed basis. Healthcare professionals discussed the importance of using non-pharmacologic measures to improve symptoms; however, consumers stated that physicians encourage them to continue using medications, often for prolonged periods, even when these agents are not helpful.

**CONCLUSIONS:** Consumers were dissatisfied about the complexity of their medication regimens and also lacked understanding as to how to take their drugs effectively. Dedicated time should be devoted during medical consultations to facilitate verbal exchange of information about medications. Pharmacists must communicate regularly with physicians about consumers' medication needs to help preempt any problems that may arise. Instructions need to be revised through collaboration between physicians and pharmacists so that "as needed" directions provide more explicit advice about when and how to use such drugs. Future research, using large, generalizable samples, should examine trends related to consumers' experiences of symptomatic relief from chronic conditions and their understandings about medications.

**KEY WORDS:** consumer, drug information, osteoarthritis, pain.

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people with osteoarthritis and coexisting chronic conditions manage their medications.

Sale et al.<sup>13</sup> conducted in-depth interviews with 19 older consumers with osteoarthritis about their use of pain-relieving medications. Consumers were reluctant to take

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analgesics and, when they did use the drugs, they took them less frequently or at a lower dose than prescribed. While the work of these investigators was very informative, they did not consider healthcare professionals' perspectives on how consumers manage their pain-relieving medications. No qualitative work has been undertaken in relation to consumers with osteoarthritis and other chronic conditions from the perspectives of consumers and healthcare professionals.

Consumers take on various positions in managing medications: passive users relinquish control, active acceptors make a conscious decision to take medications as prescribed, rejecters refuse their regimen, and active modifiers change their regimen themselves.<sup>13</sup> The process of medication consumption, the ways in which drug information is given, and interdisciplinary roles of healthcare professionals are key influences in shaping the positions taken by consumers in managing their medications. We sought, therefore, to investigate these influences in consumers with osteoarthritis and other chronic conditions.

## Methods

Consumers were recruited from an ambulatory care clinic of a metropolitan teaching hospital and an arthritis consumer organization in Australia. Inclusion criteria were age 18 years or older and at least 2 chronic conditions (eg, osteoarthritis and diabetes). A purposive sampling approach was used to obtain a broad cross section of individuals with different medical conditions and of various ages. A matrix that identified each consumer's age (older or younger than 70 y) and types of chronic medical conditions, in addition to osteoarthritis, was drawn up. This matrix provided readily accessible information about the characteristics of participating consumers and which individuals to target for future focus groups. After the matrix was set up, consumers were chosen systematically from the list in the matrix. For example, each time a consumer agreed to participate in a particular focus group, we examined the individual's demographic profile in terms of age grouping (older or younger than 70 y) and types of chronic conditions present in addition to osteoarthritis. Future participants, who had demographic profiles different from those of consumers who had already consented, were then selected from the list and invited to participate. In this way, each focus group was balanced with consumers of younger and older age groupings who had chronic conditions other than osteoarthritis (eg, hypertension, ischemic heart disease, peptic ulcer disease, hypercholesterolemia, diabetes mellitus).

Due to restrictions associated with work commitments, a convenience sampling method was used to recruit healthcare professionals from inpatient and outpatient hospital environments and from the arthritis consumer organiza-

tion. They were eligible to participate in a focus group if a large component of their work involved care of individuals with osteoarthritis. Community medical practitioners with their own practices were invited for individual interviews. Due to work constraints, they were not available to attend a healthcare professional focus group. Recruitment strategies involved providing consumers with verbal and written information about the study while they were waiting to be seen by a healthcare professional at the hospital or consumer organization and presenting informal information sessions to healthcare professionals at departmental meetings. The study was approved by the human research ethics committees of the hospital and university.

Semistructured guides were used for data collection (Table 1). Two interviewers with intensive training and several years of experience in leading focus groups and interviews conducted the sessions. A circle technique was used to ensure that every participant's opinion was represented in the focus groups.<sup>14</sup> In this technique, each participant was asked a key question if the response had not been volunteered previously. This technique enabled participants to contribute equally and broke any patterns of dominance. All sessions lasted between 60 and 180 minutes and were audio taped with the permission of participants. Audiotapes were later transcribed verbatim and subjected to data analysis.

All transcripts were analyzed individually with the "framework" approach, consisting of 5 stages.<sup>15</sup> Familiarization required gaining an overview of the data by reading transcripts several times. The next stage involved identifying a thematic framework, which included 3 themes that mapped onto the categories of questions asked: consumption of medications, provision of information, and roles of healthcare professionals. It also included the derivation of subthemes. Indexing involved labeling data into manageable units for subsequent retrieval and exploration. Charting required a process of abstraction and synthesis whereby transcripts were annotated with particular subthemes associated with the 3 themes of the framework. The mapping and interpreting stage involved comparing and contrasting participants' experiences and searching for patterns from the dataset as a whole. To address rigor, 2 investigators independently conducted data analysis and identified subthemes within the framework of 3 themes. All investigators examined the findings for consistency and valid interpretation.

## Results

Thirty-four consumers participated in focus groups; 27 of these were women. The mean  $\pm$  SD age of female consumers was  $67 \pm 8.9$  years and the mean  $\pm$  SD age of male consumers was  $75 \pm 3.6$  years. In addition to osteoarthritis, common chronic conditions included hypertension (53%), ischemic heart disease (47%), peptic ulcer disease (32%),

hypercholesterolemia (32%), and diabetes mellitus (32%). Of the consumers, 44% spoke a language other than English at home. Half the consumers lived in regional areas; the remaining 17 resided in metropolitan areas. On average, consumers were regularly taking 7 medications daily (range 3–16).

Nineteen healthcare professionals participated in the focus group, including 12 rheumatologists, 3 medical interns, and 1 each of a hospital pharmacist, health educator, rheumatology nurse, and consumer advocate. Three community medical practitioners participated in individual interviews, all of whom worked in metropolitan settings but had previous experience in regional and rural environments.

Tables 2–4 show the themes that form the framework of medication management examined: consumption of medications, provision of information, and perceived roles of healthcare professionals; examples of supporting quotes are also provided.

**CONSUMPTION OF MEDICATIONS**

Three subthemes related to consumers’ drug regimens: practical strategies, financial constraints, and complexity of taking multiple medications (Table 2). Consumers’ strategies to help them to take their medications were generally simple and pragmatic, involving the use of inanimate administration aids, such as mechanical reminder systems, dosette boxes, and glass containers. In some cases, administration aids contributed to possible mismanagement of the drug regimen. Examples included potential chemical interactions from pooling all medications into

single glass containers and patients putting the lowest dose of an as-needed agent in an administration aid during times when a dose range was ordered. Other strategies included social support from relatives and peers.

Financial constraints impacted consumers’ ability to pay for the medications. This constraint was further burdened by the expense associated with using complementary products such as glucosamine. Consumers rationalized their medication use by omitting an analgesic unless their osteoarthritic pain was particularly severe. Most consumers perceived that chronic conditions such as diabetes, hypertension, and ischemic heart disease had a greater impact on their overall health than did osteoarthritis. Therefore, they endeavored to take all drugs required for those other conditions. However, 8 participants commented that they regularly omitted doses in managing any of their chronic conditions because of medication costs. The financial situation of consumers was not a concern brought up by the healthcare professional focus group, although community medical practitioners acknowledged the high cost associated with drug therapy.

Consumers highlighted the complexity of taking multiple medications, which sometimes led to errors. In relation to osteoarthritis, patients were taking different analgesic preparations containing varying amounts of acetaminophen and codeine, and nonsteroidal antiinflammatory drugs (NSAIDs), which were prescribed on an as-needed basis. They manipulated the as-needed analgesics in different ways by altering the dose, changing the preparations used, or stopping a particular drug to observe its effects. Some participants commented that they accidentally took

**Table 1.** Schedules for Focus Groups and Individual Interviews

Focus Groups with Consumers	Focus Group with Healthcare Professionals and Interviews with Community Medical Practitioners
What things help you to use the medicines that your doctor or pharmacist recommends?	How do you assist consumers in managing their symptoms of osteoarthritis and other chronic medical conditions?
What things prevent you or get in the way in using the medicines that your doctor recommends?	What barriers affect consumers’ ability to effectively manage their osteoarthritis and other chronic medical conditions?
What problems do you have with medicines that are prescribed by your doctor? What problems do you have with medicines that have not been prescribed by your doctor?	What problems do consumers have with prescribed medications and over-the-counter medications?
How do you prepare for the time you have with your doctor or pharmacist about how to take your medicines?	How do you perceive your role in helping consumers manage their medications?
What do you do before you come to speak to your doctor or pharmacist about your medicines?	How do you support consumers to prepare themselves for their time with you?
What things do you think are important to discuss with your doctor or pharmacist about your medicines?	What resources do you provide for consumers to manage their osteoarthritis and other chronic medical conditions?
After you have seen your doctor or pharmacist, do you feel you understand how to use your medicines?	To what extent do consumers understand how to use their medications?
What type of information do you receive in the hospital to help you to use your medicines?	How are consumers’ medication needs coordinated in the hospital? What are the gaps or barriers in how consumers’ medication needs are coordinated in the hospital?
What type of information do you receive in the community or outside the hospital to help you to use your medicines?	How are consumers’ medication needs coordinated outside of the hospital? What are the gaps or barriers in how consumers’ medication needs are coordinated in the hospital?
Do you have any ideas on how information can be improved in the way it is made available to you?	What are the key issues affecting consumers’ knowledge about their medications? How can their knowledge be improved?

excessive amounts of acetaminophen because they did not realize it was an active ingredient in several over-the-counter preparations.

Consumers stated that they kept previously prescribed medications on hand. In completing a demographic profile, patients were asked to identify their currently prescribed drugs and their intended purpose. Twelve indicated that they kept these agents in case they were needed, which added further to the complexity of taking multiple medications.

When asked about nonpharmacologic means to treat symptoms, most consumers preferred to use only medications; 5 stated that they placed equal emphasis on drugs and nonpharmacologic means in managing their health. Examples of nonpharmacologic treatments included walking, tai chi, self-management programs, hydrotherapy, and diet. Reasons for preferring to use only medications included ease of using drugs compared with time required to participate in nonpharmacologic treatments, lack of motivation, and difficulties with transportation. Healthcare professionals, including community medical practitioners, advocated the importance of diet and exercise as first-line therapies for chronic disease management, with drugs considered as second-line therapies.

**PROVISION OF INFORMATION**

Participants reported subthemes around dissemination of information at medical consultations, supply of prescriptions, and consumers' perceived lack of understanding about adverse effects and benefits of drugs (Table 3). Consumers felt relatively uncomfortable speaking about medications during medical consultations because of lack of time to discuss issues with physicians and feelings of embarrassment about asking for information. On the other hand, patients felt comfortable requesting drug information from pharmacists because they perceived that pharmacists were readily available and listened to patients' concerns. All healthcare professionals commented that they provided information regularly about patients' medications. The pharmacist participant highlighted the problem of relying solely on written materials, stating that he preferred to supplement documented resources with verbal communication.

Generally, consumers lacked understanding about adverse effects and benefits of their medications and expressed a desire to receive more information from healthcare professionals. Healthcare professionals conceded that currently available written resources were often too diffi-

**Table 2.** Taking Medications Theme with Subthemes and Examples of Quotes<sup>a</sup>

Theme	Subthemes and Examples of Quotes
Consumption of medications	<p>Practical strategies to assist consumers with taking their medications</p> <p>"I put my tablets on a plate in the kitchen each night ready for the next morning's medications and I also put a plate in the lounge room with my evening medication." (C1)</p> <p>"I use a little container for the whole day. I have different tablets for different illnesses and my doctor tells me to take them all together, so I put them all in the one container. If the doctor has given me a range of doses, then I just put in the smallest dose I am supposed to have." (C15)</p> <p>"I was having trouble remembering my patches for pain and my pharmacist gave me a little reminder gadget. So I know if I put my patch on Thursday, I can twist the gadget and then know that my next dose is due on Saturday." (C17)</p> <p>Financial constraints impact ability to take medication as prescribed</p> <p>"I can't afford all the medications the doctor tells me to take so I take some of my tablets every second day. I don't do that with my blood pressure or diabetes, only the pain tablets, like Panadeine, and also herbal products like glucosamine." (C17)</p> <p>"I find having to buy so much medication is a financial burden even if each medication is cheap. When I have to buy 4 or 5 things a week, it all adds up." (C11)</p> <p>"Cost is a big issue for patients, and not only for medications. Many patients can't afford to do hydrotherapy or see a physiotherapist or orthotist." (CMP1)</p> <p>Consumers' reliance on taking medications</p> <p>"Quite a lot of my pain medications are taken just when necessary—I have 5 like that and it is a real trap. I think to myself, have I had them, when I had them, and how many I had. With these tablets I need to write down when I have them." (C17)</p> <p>"I am on about 12 different tablets, and for some I need to take them many times during the day. I find some of them don't even work, I just don't feel any different or my pain is not better, and I say this to my doctor. I say to him, how do I know my blood pressure or cholesterol is down? And he says, you keep trying, you got to give them time. But after about six months, you wonder how much more time to give them." (C5)</p> <p>"Patients are very reluctant to make changes to their lifestyle. They want the magic tablet." (CMP1)</p> <p>"Patients are often overweight and don't understand the importance of diet and exercise in helping their osteoarthritis condition and other things like diabetes and blood pressure management." (CMP3)</p> <p>"It is important to look at the partnership involved and ask people how they manage pain and other symptoms....You can work out whether they need changes to their medicines or if other methods of control should be used." (CA)</p>
<p><sup>a</sup>Abbreviations listed identify type of participant: consumers (C), consumer advocate (CA), and community medical practitioners (CMP). Numbers were assigned for participant groups involving more than 1 individual.</p>	

cult for consumers to comprehend. The professionals thought that regular medical consultations would provide opportunities to resolve misunderstandings about medications. Given that consumers had at least 2 chronic conditions, they were taking many medications to relieve symptoms, which sometimes led to confusion about their intended purpose. The specific drug classes of which consumers were unsure about perceived benefits included as-needed analgesics, proton pump inhibitors, antiepileptic or antidepressant drugs for neuropathic pain, and antihypertensive or oral hypoglycemic therapies (when more than one preparation from either class had been prescribed).

**PERCEIVED ROLES OF HEALTHCARE PROFESSIONALS**

Three subthemes regarding the role of healthcare professionals were identified: the role of the physician, the

role of the pharmacist, and the role of the nurse (Table 4). Generally, patients perceived the physician as a prescriber and an overseer in managing chronic illness. Although community medical practitioners and rheumatologists believed that they had a major responsibility in supporting consumers to use their medications effectively, this view was not shared by many consumers.

On the other hand, consumers emphasized the pharmacist’s role in helping them to understand drug use and adverse effects. The patients believed that, compared with other healthcare professionals, pharmacists were best able to support them in taking medications to suit specific needs. Pharmacists were perceived to be the central educator about managing medications.

Nurses worked in physicians’ offices and outpatient hospital clinics; however, consumers did not perceive that nurses played a major role in medication use. Some consumers did

**Table 3.** Provision of Information Theme with Subthemes and Examples of Quotes<sup>a</sup>

Theme	Subthemes and Examples of Quotes
Provision of information	<p>Disseminating facts about medications at the time of consultation and supply of prescription</p> <p>“I used to write things down, but I found that some doctors switched off because I had a list. They must have thought I was a paranoid person. Some of them were experts in diverting me. I asked my questions and they told me that they didn’t want to spend time on them.” (C16)</p> <p>“I check to see if I’m running out of medication and if I need a new prescription before going to the doctor. That’s my main reason for seeing him.” (C28)</p> <p>“My doctor should listen more about my problems with diabetes and osteoarthritis. Sometimes I feel too nervous to ask him lots of questions in case he thinks I’m being difficult.” (C34)</p> <p>“I have been thinking should I be taking Celebrex, as one doctor said it was okay to keep taking it, and then I saw another doctor and he said to stop taking it. So I don’t know what to do as there is so much stuff in the media about heart attacks and other side effects.” (C19)</p> <p>“The thing that bothers me is the side effects and doctors don’t seem to ask you about them....My pain became so bad that none of the normal medications—Panadol (acetaminophen) or Panadeine (acetaminophen and codeine combination therapy)—were making any difference, so the doctor gave me Tramadol. And with this tablet I had a fit. I had a fit about 45 years ago but that was just once. I went back to him and he said the tablet may have caused it....I feel that I shouldn’t have to remember to tell him that kind of thing. He should have looked up my history and asked about it.” (C13)</p> <p>“My pharmacist is really good. He rings up the doctor if he thinks I shouldn’t take the medication.” (C27)</p> <p>“I don’t usually get much information from my specialist.” (C22)</p> <p>“My doctor tells me to take the medication and gives information about side effects, but I always also ask my pharmacist.” (C29)</p> <p>“My doctor is too busy. He just writes the prescription.” (C20)</p> <p>“I give patients pamphlets and things like that, but do they read the information given to them?” (RMC8)</p> <p>“I ask at each visit what medication and dosage patients are taking. I then tell them if they don’t know.” (CMP3)</p> <p>“Patients often go to the side effects first with documented information, and if they see a long list they get really worried. It’s important to talk them through these side effects.” (P)</p> <p>Perceived lack of understanding about adverse effects and benefits</p> <p>“I would like to know what to do if I have a side effect.” (C32)</p> <p>“With something like Panadeine Forte [acetaminophen and codeine combination therapy], I only take it when the pain is really bad. I can’t be confident to take it very often in case I...have an accident from getting too sleepy and falling over. I don’t know what else to take so I would rather grit my teeth and bear the pain.” (C17)</p> <p>“I have so many tablets to take every day for my diabetes, blood pressure, depression, and osteoarthritis that I get confused about what they are all for.” (C9)</p> <p>“I don’t even think my tablets make any difference to my pain, so why bother taking them? I am also worried that if I take them too often I might get addicted to them.” (C7)</p> <p>“The information currently available is complex with regard to all of the side effects and benefits of medications.” (RMC11)</p> <p>“It is too much to ask a patient to know the side effects of a medication, so regular doctor visits are the key thing.” (CMP2)</p>
<p><sup>a</sup>Abbreviations listed identify type of participant: consumers (C), community medical practitioners (CMP), hospital pharmacist (P), and rheumatology medical consultants (RMC). Numbers were assigned for participant groups involving more than 1 individual.</p>	

not even realize that nurses were employed in these environments. Patients suggested that, due to lack of time for medical consultation, nurses could have an enhanced role in helping consumers to use their medications effectively.

## Discussion

The results of this study provide valuable insight into the management of complex medication regimens. Two key features differentiate our work from previous studies. First, we sought the perspectives of various healthcare professionals working in community and hospital settings, as well as consumers managing their osteoarthritis at home. Second, we recruited consumers who had at least 2 chronic conditions. Such an approach enabled us to determine commonalities and tensions between different healthcare professional groups and consumers.

Despite the fact that consumers used elaborate practical strategies to assist them in taking medications, many expressed dissatisfaction about the complexity of their drug regimens. Healthcare professionals spoke about the importance of using nonpharmacologic measures to improve symptoms. Nevertheless, patients indicated that, in their experience, physicians encouraged them to continue using

medications, often for prolonged periods even though consumers informed them that sometimes these products did not work.

The prescription instruction to take analgesics as needed enabled consumers to manipulate therapeutic regimens to suit their own situations. Siegal et al.<sup>16</sup> referred to consumers as “naïve scientists,” indicating that they formulate hypotheses about their medications and then test these hypotheses by altering doses, switching between drugs, or stopping them altogether to observe effects produced. This form of medication manipulation was identified in interviews with people taking NSAIDs.<sup>12</sup> In their sample, 4 out of 41 individuals reduced their NSAID doses because they believed that the medications were not working and 6 stopped NSAID treatment. In the current study, consumers tested their taking of as-needed analgesics, often without understanding the active ingredients of these preparations. They also tended to use analgesics to decrease the intensity of unbearable pain already present, which often led to erratic consumption. Rarely, consumers took analgesics on a regular basis to prevent pain from occurring in the first place or to reduce pain intensity from an initial low starting point. In an exploratory study, consumers indicated that they would take as-needed medication only when the pain was severe.<sup>13</sup>

**Table 4.** Perceived Roles of Healthcare Professionals with Subthemes and Examples of Quotes<sup>a</sup>

Theme	Subthemes and Examples of Quotes
Perceived roles of health-care professionals	<p>Role of the community doctor and medical specialist as prescriber and overseer</p> <p>“The doctor’s job is as a caretaker and to oversee my health needs.” (C13)</p> <p>“With the specialists I see in hospital, usually they just check to see that I have enough medicines and that I am doing okay with them.” (C19)</p> <p>“My specialist asked me the other day if I had this medicine for blood pressure before. He had just ordered it for me. I said that I hadn’t, and then he said it was much the same as my other blood pressure medicines and I should follow up with my local doctor about it.” (C29)</p> <p>“My local doctor does not have any skills in advanced osteoarthritis, so I have to rely heavily on the specialist for that—with how the disease is coming along.” (C23)</p> <p>“People with osteoarthritis and other conditions are generally managed in the community, so the primary medication role should lie with the local doctor as a starting point.” (HE)</p> <p>“I work with senior medical staff to provide advice about medications.” (MI1)</p> <p>“Our role is to monitor the progression of osteoarthritis and how it may be affected by other health problems confronting the patient. Patients should talk to us about problems they have with their medications.” (RMC4)</p> <p>“My role is in ongoing monitoring and offering support as often there is not a lot we can do in curing osteoarthritis.” (CMP2)</p> <p>Role of the pharmacist as central medication educator</p> <p>“The pharmacist’s role is to educate about medicines as they are an expert.” (C15)</p> <p>“I had a really bad side effect—I had blurriness from a blood pressure tablet. I felt sick and I was seeing things and it wasn’t written on the information sheet. But I could just walk in and ask my pharmacist about it.” (C2)</p> <p>“Hospital and community pharmacists help to clarify any concerns that patients have about their medications, but this role can be enhanced by better collaboration between hospital and community pharmacists and between pharmacists and doctors.” (P)</p> <p>Role of the nurse requires clarification</p> <p>“I didn’t even know there was a nurse in the clinic.” (C18)</p> <p>“There is so much waiting time in the clinic, it would be good if you could use this time to run over some issues to find out what nurses think.” (C33)</p> <p>“Nurses...have an administrative and clerical role. They could do risk stratification by asking people about their medicines, weight loss, and blood pressure and then feeding that information back to the doctor in the clinic.” (RN)</p>
<p><sup>a</sup>Abbreviations listed identify type of participant: consumers (C), community medical practitioners (CMP), health educator (HE), medical interns (MI), hospital pharmacist (P), rheumatology medical consultants (RMC), and rheumatology nurse (RN). Numbers were assigned for participant groups involving more than 1 individual.</p>	

Financial constraints of medication use were mentioned by consumers in our study and acknowledged by community medical practitioners as an important concern. Patients were taking an average of 7 different drugs daily, which led to consumers' attempts to rationalize what medications to purchase during times of budgetary constraint. Usually, pain-relieving therapies and complementary products were accorded lower priority compared with pharmacologic treatment for other chronic conditions. Patients acknowledged that because their pain was not life-threatening, they could accept it most of the time. Financial difficulties impacting medication-taking behaviors have also been reported by researchers from North America.<sup>17-19</sup> Many prescribed medications in Australia are subsidized by the federal government through the Pharmaceutical Benefits Scheme (PBS), the aim of which is to enable Australian citizens to access necessary and cost-effective therapies.<sup>20</sup> Despite the PBS, drug costs can still be a barrier for consumers, particularly those with chronic illnesses or lower incomes but who are not eligible for further government concessions.<sup>21</sup> Additional research should examine whether medication usage is affected by the extent to which governments subsidize medication costs, particularly for vulnerable populations.

Consumers in our study regarded medical consultations as a time to communicate openly with their physicians about concerns they had with their medications. Unfortunately, this experience was not always a positive one. Some consumers believed that their questions were sometimes not welcomed because of perceived busyness of the physician or fear of being labeled a "paranoid person." On the other hand, consumers overwhelmingly acknowledged the support that they received from pharmacists. With increasing access to healthcare information through the media and the Internet, people are more aware of available options and are also demanding greater involvement in decision making.<sup>22</sup> It is therefore important that physicians and pharmacists encourage consumers to demonstrate active negotiating skills so that all parties can confidently build a repertoire of treatment choices consistent with goals of management.<sup>23,24</sup> Greater collaboration between physicians and pharmacists can also help to improve the quality of medication information provided to consumers.<sup>25,26</sup>

There are limitations to our study. Sampling included individuals from metropolitan and regional areas but did not extend to those living in rural and remote environments. Since only a convenience sampling approach was possible for healthcare professional recruitment, there appears to be an imbalance of rheumatologists participating in the healthcare professional focus group. It would have been useful to have representation from other healthcare professionals, including community pharmacists. Because com-

munity medical practitioners could only be interviewed individually, it is not possible to know the interactional effects of their views compared with those of other healthcare professionals. Due to the voluntary nature of participation, it is possible that views expressed related to individuals who had an interest in managing medications. Only community-dwelling consumers who accessed the ambulatory care clinic or the arthritis consumer organization were recruited.

## Conclusions

In relation to clinical implications, dedicated time should be allocated during medical consultations to facilitate verbal exchange of information about medications. Pharmacists need to communicate regularly with physicians about consumers' medication needs to help preempt any problems that may arise. Instructions need to be revised so that as-needed directions are clarified with more explicit advice about when and how to use such drugs. Future research could test whether availability of specific medication information for consumers with several chronic conditions can improve how they take medications. Observational studies using large, generalizable samples to examine trends relating to consumers' experiences of symptomatic relief and their understanding about drugs are needed.

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## EXTRACTO

**TRASFONDO:** El manejo de los medicamentos es complicado, particularmente para los consumidores con múltiples condiciones co-existentes para quienes los beneficios y los efectos secundarios son imprevisibles y las prioridades de salud pueden ser variables.

**OBJETIVO:** Investigar las percepciones y las experiencias relacionadas al manejo de medicamentos desde las perspectivas de consumidores que padecen de osteoartritis y otras condiciones crónicas co-existentes y de profesionales de la salud con diversos trasfondos.

**MÉTODOS:** Se condujeron grupos de enfoque con 34 consumidores y 19 profesionales de la salud utilizando un diseño de investigación exploratorio. Se realizaron entrevistas individuales con 3 médicos de la comunidad.

**RESULTADOS:** Se exploró el manejo de medicamentos por los consumidores en términos de 3 temas: el consumo de medicamentos, la provisión de información, y el papel de los profesionales de la salud percibido. En general, los consumidores carecieron de un entendimiento con relación al por qué ciertos medicamentos les fueron prescritos a ellos. Como todos los consumidores tenían por lo menos 2 condiciones crónicas, estaban tomando muchos medicamentos para aliviar los síntomas indeseables. Algunos consumidores no pudieron alcanzar una mejoría en el alivio del dolor, y estuvieron reacios a tomar analgésicos prescritos en forma de según sea requerido. Los profesionales de la salud hablaron sobre la importancia de utilizar medidas no-farmacológicas para mejorar los síntomas; aún así, los consumidores expresaron que los médicos los animaron a continuar usando medicamentos, con frecuencia por períodos de tiempo prolongados, aún en situaciones donde estos medicamentos no eran beneficiosos.

**CONCLUSIONES:** Los consumidores estuvieron descontentos con la complejidad de sus regímenes de medicamentos y también carecieron del entendimiento de cómo tomar sus medicamentos efectivamente. Se debe dedicar un tiempo específico durante las consultas médicas para facilitar el intercambio verbal de información sobre medicamentos. Los farmacéuticos deben comunicarse regularmente con los médicos sobre las necesidades de medicamentos de los consumidores para ayudar a anticipar cualquier problema que pueda ocurrir. Las instrucciones al consumidor necesitan ser revisadas a través de una colaboración entre los médicos y los farmacéuticos, de tal manera que las instrucciones de uso para medicamentos "según sea requerido" provean guías más explícitas sobre cuándo y cómo utilizar tales medicamentos. Las investigaciones futuras deben examinar las tendencias relacionadas a las experiencias de los consumidores con relación al alivio sintomático de condiciones crónicas y su entendimiento sobre medicamentos, haciendo uso de muestras grandes que se puedan generalizar.

Brenda R Morand

## RÉSUMÉ

**INTRODUCTION:** La gestion de la polypharmacie est un problème complexe, particulièrement pour les personnes souffrant de nombreuses maladies, et chez qui les effets bénéfiques et les effets indésirables sont difficiles à prédire et pour qui les priorités de santé peuvent être variables.

**OBJECTIFS:** Évaluer la perception et les expériences de gestion des médicaments à partir de la perspective de consommateurs atteints d'arthrose associée à d'autres conditions de santé chroniques, et des différents professionnels de la santé.

**MÉTHODE:** Un devis de recherche exploratoire comportant des groupes de discussion ciblés regroupant 34 consommateurs et 19 professionnels de la santé ont été utilisés pour mener cette recherche. Des entrevues individuelles ont aussi été réalisées avec trois médecins de famille.

**RÉSULTATS:** La gestion des médicaments par les consommateurs a été explorée sous trois angles : la consommation de médicaments, l'accès à l'information, et la perception du rôle des professionnels. En général, les consommateurs ne sont pas suffisamment informés de la raison pour laquelle ils utilisent certains médicaments. Puisque tous les consommateurs interrogés étaient porteurs d'au moins 2 maladies chroniques, ils recevaient plusieurs médicaments pour en soulager les symptômes. Quelques consommateurs étaient incapables d'atteindre un soulagement acceptable et étaient réticents à prendre des analgésiques

prescrits au besoin. Les professionnels de la santé ont souligné l'importance des mesures non pharmacologiques pour améliorer les symptômes. Malgré cela, les consommateurs affirmaient que les médecins les encourageaient à prendre les médicaments, souvent pour des périodes prolongées, même lorsque ces médicaments étaient perçus comme inutiles.

**CONCLUSIONS:** Les consommateurs n'étaient pas satisfaits de la complexité de leurs traitements pharmacologiques et leur compréhension de la façon optimale d'utiliser les médicaments est limitée. Du temps devrait être consacré à l'échange verbal d'information sur les médicaments durant les consultations médicales. Les

pharmaciens doivent communiquer régulièrement avec les médecins concernant les besoins pharmacologiques des consommateurs pour prévenir tout problème pouvant survenir. Une étroite collaboration entre le médecin et le pharmacien est requise pour que les patients puissent gérer adéquatement une recommandation d'utilisation « au besoin » en recevant une information plus explicite. Les recherches futures devraient porter sur les expériences des consommateurs sur le soulagement de maladies chroniques et leur compréhension des médicaments utilisés sur un échantillonnage plus important.

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