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Preventing Falls Among Older People—Current Practice and Attitudes Among Community Pharmacists

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ABSTRACT

Objective: Falls among older people are a major cause of injury and death in Australia. Urgent action is required if we are to stem the 'epidemic' increase in falls as our population ages. This paper describes current practice and attitudes of community pharmacists in Northern Rivers, New South Wales, in relation to preventing falls.

Method: Community pharmacists in the Northern Rivers area of New South Wales were surveyed to determine their current activities to reduce the risk of falls in older clients and to gauge awareness of the successful 1992–96 falls prevention program—'Stay on Your Feet'.

Results: Response rate was 79% (53/67). Seventy-two per cent reported that they urge 'most' or 'almost all' older clients to bring in out-of-date medications for disposal, 66% give them falls prevention advice at least 'sometimes', 57% refer at least 'some' older clients to allied health practitioners for assessment or treatment of falls risk, and 92% are interested in receiving more written information regarding falls prevention.

Conclusion: The findings suggest that while community pharmacists are both ready and keen to play a role in future falls prevention initiatives, their current involvement varies considerably. Specific ways in which they might further help to reduce falls are: regularly checking the potential of client medications to contribute to falls, giving more verbal or written advice, promoting 'falls safe' products, referring older clients to allied health practitioners for assessment or treatment of falls risk, and training staff to provide falls prevention advice.

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INTRODUCTION

Falls are a major cause of morbidity and mortality among older Australians.^{1,4} They often result in debilitating injuries such as a broken neck of femur, requiring treatment, prolonged convalescence and reduced quality of life.^{5–7} The associated costs are significant and are set to escalate as the proportion of older people in the Australian population increases.⁸ In some areas, such as the Northern Rivers, New South Wales (NSW) area, the problem is compounded by a larger than average proportion of older people and by an ongoing influx of older retirees.¹

While there is clearly a need to prevent falls, the issue is complex.⁹ Causes are multiple, including medication use and misuse, chronic illness, insufficient physical activity, poor balance and gait, poor vision, unsafe footwear, and unsafe domestic and public environments.⁴

In the Northern Rivers area, two in nine older residents fall each year and 50% of older peoples' injuries result from a fall.^{10,11} The resulting direct cost to the health system is enormous and a recent report from NSW Health predicted that within the Northern Rivers area the cost is estimated to increase from \$34 million to \$46 million per year between 2001 and 2016.¹² This does not include the costs of rehabilitation, increased use of community services and premature admission to nursing homes.

There may also be a high individual cost to the person who falls. A fall may result in physical injury, with consequent disruption to lifestyle and quality of life.^{6,13} It may also have an impact on confidence and self-esteem, with a subsequent reduction in independence and sense of self-efficacy.^{10,14}

There is obviously an urgent need to counter the 'falls epidemic' and there are tested strategies for doing so. The evidence indicates that falls among older people can result from a wide range of interacting factors. These risk factors can be intrinsic (e.g. medication use, balance, inactivity, osteoporosis, mental state) or extrinsic (e.g. poor lighting, slippery or uneven surfaces). Therefore, interventions should ideally target multiple risk factors.^{11,15,16}

The frequent visits that older adults make to their pharmacies and the view that they are a trusted source of information, provides an important opportunity for pharmacists to expand their role into population health. This role expansion is already evident both here in Australia and elsewhere.^{17–21} More specifically, because pharmacists are in a prime position to address clients' risk factors for falls, they can potentially play a vital role in falls prevention.^{19,22}

When specific risk factors for falls are assessed in population studies, medications, especially psychoactive medication and poly-pharmacy, always come up as an important risk factor.²³ Meta-analysis of drugs and falls also demonstrates the major role of psychoactive drugs in falls.^{24,25} While many pharmacists may already be reviewing medication use, drug interactions and disposal of medications which might contribute to falls, further action to address other factors such as home environments, poor vision, lack of physical activity and balance problems might well lead to significant reductions in falls.^{26–29}

Although pharmacists have played a key role in interventions focusing on health issues other than falls,^{20,30,31} and have been described as being of 'overwhelming importance...in the provision of preventive

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health information for rural people',²¹ little work has been done in Australia or elsewhere to explore their potential role in preventing falls among older people.³²

One program that included pharmacists amongst a wide range of target groups was the successful 1992–96 'Stay on Your Feet' (SOYF) program.^{10,11} SOYF was a multi-strategic, community-wide intervention to decrease the number and severity of falls experienced by people over 60 years of age in the Northern Rivers and Mid North Coast areas of NSW. It targeted 80 000 non-institutionalised, older people aged 60 years and over. The intervention was based on published epidemiological evidence and had a comprehensive evaluation design.³³ SOYF addressed footwear/footcare, vision, physical activity, balance and gait, medication use, chronic medical conditions, plus home and public environmental hazards.^{10,11} Multiple strategies consistent with the Ottawa Charter³⁴ were implemented in successive phases by a wide variety of strategies, including raising of awareness, community education, policy development, home hazard reduction, media campaigns, and working with clinicians and other health professionals. Empowerment of seniors was a vital part of the project with participants being encouraged to educate other seniors and actively participate in risk reduction strategies.¹⁰ Through SOYF, pharmacists were encouraged to engage in falls prevention activities by:

- involvement in well-publicised events in which older people were encouraged, via the media, to take out-of-date medications to their pharmacist for disposal;
- answering the specific questions that older people were encouraged to ask of their pharmacist (via the SOYF booklet, of which 30 000 were distributed); and
- promotion of various products useful in reducing the risk of falls, to older people (e.g. canes, handrails, slip grip).¹⁰

In planning a new five-year falls prevention initiative for the Northern Rivers area, surveys were conducted amongst a range of health professionals. This paper reports on the survey of pharmacists. It examined:

- current activities by which they may already be preventing falls;
- views regarding professional development in falls prevention;
- interest in participating in a community advisory committee; and
- recall, influence and adoption of any components of SOYF.

METHOD

A list was compiled of all community pharmacies operating within the Northern Rivers Health Service area. This was derived from regional telephone business listings of pharmacies.

The 16-item questionnaire was constructed considering published evidence regarding contributors to falls risk and the researchers' experience working on falls prevention in partnership with health service agencies and general practitioners. A preliminary draft was reviewed by a wider group of health managers and researchers. A subsequent draft was piloted and critiqued by two rural pharmacists before the questionnaire design was finalised.

The questionnaire was mailed out in October 2001. After two weeks another copy was sent out to those who had not responded. After a further two weeks,

non-responders were phoned once or twice as a final prompt.

Data were entered onto an EPI2000 entry template and then transferred to SAS.^{35,36} Basic tabulations were performed on all variables to identify outlier and error values. These were checked against original survey forms and the databases corrected accordingly.

Frequency analyses were performed on grouped data and then by subgroups. Internal consistency reliability of the instrument was measured by Cronbach's alpha.

RESULTS

All 67 community pharmacies operating in the Northern Rivers Health area were sent a copy of the survey. Questionnaires were completed and returned by 53 (79%). The 14 not returned consisted of five refusals (four were too busy and one believed the survey was irrelevant) and nine non-responders. The overall findings are described below.

Falls Prevention Activities

Forty per cent of pharmacists responded that they 'sometimes' gave falls prevention advice to older clients aged 60 and over. Twenty six per cent reported that they 'often' did and none reported doing so 'always'.

In response to more specific questions about the type of advice given, no pharmacists said they give verbal advice to 'almost all' older clients and fewer than one in five (17%) said they did so for 'most' (Figure 1). Only 10% reported giving written material on ways to reduce falls risk in the form of pamphlets, posters or booklets to 'almost all' or 'most' older clients.

Over half (53%) reported checking the medications of 'most' or 'almost all' of their older clients (aged ≥ 60 years) for their potential to contribute to falls. Almost three quarters (72%) reported they urged 'most' or 'almost all' older clients to bring in out-of-date medications for disposal.

None reported promoting 'falls safe' products such as canes, handrails or slip grip to 'almost all' of their older clients. Fewer than one in ten (8%) do so to 'most'. However, over half (57%) reported doing so for 'some'.

Although no pharmacists reported that they refer 'almost all' older clients to allied health practitioners such as physiotherapists and optometrists for assessment or treatment of falls risk, one in six (17%) reported doing so for 'most' and another 40% reported doing so for 'some'.

Training on Falls Prevention

Only 9% of pharmacists always train their staff to provide falls-related advice to clients and almost half (45%) reported never doing so. Almost all (92%) were interested in receiving more written information regarding falls prevention. More than half (59%) were interested in attending a short seminar on falls prevention. Forty per cent were interested in taking part in a planning workshop on falls prevention strategies specific to the pharmacist context. More than a quarter of pharmacists (27%) expressed interest in advising on a community committee focusing on falls prevention.

Impact of 'Stay On Your Feet' Program

Of the 46 pharmacists who had been operating a pharmacy business during any part of 1992–96, 45% reported having heard of the 1992–96 SOYF falls prevention

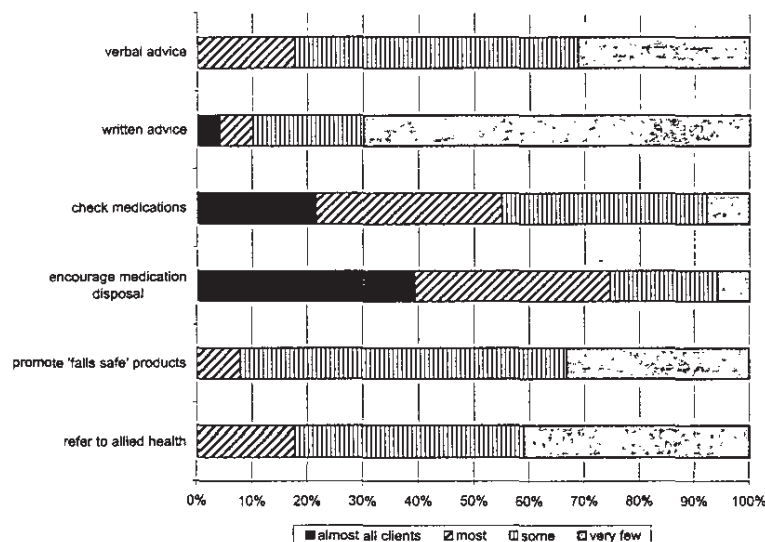


Figure 1. Pharmacists reported percentage level of engagement in falls prevention activities with older clients

program. Of these, 79% reported being influenced 'somewhat'. However, none said they had been influenced 'very much'. Only 13% reported adopting specific activities from SOYF. The two specifically mentioned activities were:

- alerting clients to the potential for drugs such as tricyclic antidepressants to cause problems; and
- warning clients that medications for blood pressure may cause unsteadiness when getting up in the night.

Reliability of the Instrument

The internal consistency reliability of each of the above three sections of the survey questionnaire, as measured by standardised Cronbach's alpha, was as follows:

1. for client related falls activities (6 items), $\alpha=0.94$;
2. for professional development (5 items), $\alpha=0.61$; and
3. for sustainability of SOYF (3 items), $\alpha=0.83$.

These values indicate that sections 1 and 3 have high internal consistency (i.e. each item highly reflects the section construct) while section 2 has moderate internal consistency.

DISCUSSION

The results indicate that pharmacists in the Northern Rivers area of NSW are already engaging in some falls prevention activities but that there is great potential for more involvement. The choices are many, ranging from interventions focusing on preventing falls in the first instance (e.g. medication review, benzodiazepine withdrawal, home aids, gait aids) to those aimed at preventing injury resulting from falls (e.g. treatment of osteoporosis, hip protectors). While some of the activities reported by pharmacists in their response to the survey may simply be an outcome of good pharmacy practice, there is a strong indication that most pharmacists are both willing and interested to do more.

The fact that two out of three pharmacists report they 'sometimes' or 'often' gave falls advice to older clients reflects general awareness that falls advice may be needed in some instances. The fact that one-third never give falls advice highlights the need and potential for promoting this falls prevention role. Furthermore, the

preponderance of the 'sometimes' response suggests that there may be great opportunity to increase the proportion of older clients to whom general falls prevention advice is routinely offered. While this might initially seem unprofitable in a competitive retail marketplace, a closer examination of the range of risk factors may reveal mutually beneficial ways of providing this advice. For example, a client who frequently stumbles on stairs at night, may benefit from purchasing a night light or stair highlighting strips.

It is promising that almost three-quarters of pharmacists encourage most of their older clients to bring in out-of-date medications, but with only half currently providing regular medication checks for most of their older clients, there is opportunity to increase medication review. The Commonwealth Domiciliary Medication Management Review (DMMR) initiative, also known as Home Medicines Review, may be the vehicle for this to occur.³⁷ The DMMR is a recent initiative (October 2001) and aims to maximise an individual patient's benefit from their medication regimen, and prevent medication-related problems through a team approach, involving the patient's general practitioner and preferred community pharmacy.

There was little evidence that community pharmacists are regularly providing older people with falls minimising strategies other than those regarding medication use. This may well be because they do not have sufficient support, understanding, training, confidence, or knowledge of available printed resources to do so. Alternatively, it may be that pharmacists do not perceive addressing falls risk factors that are unrelated to medication, as being within the pharmacy brief. Regardless, the large interest among pharmacists in receiving further information, indicates that many may be willing to expand the perception of their role.

It is surprising that so few pharmacists promote 'falls safe' products, as this is a relatively untapped sales area that will grow rapidly as the 'baby boom' cohort reaches the higher falls risk age. There has been little attempt by any retail sector to promote such products under a single marketing 'banner'. Perhaps pharmacies could do so to great advantage in 'staying independent' displays. Such displays could include safe footwear, non-slip

grip, bath rails and mats, stair marker strips, walking canes, falls risk self-assessment check-lists, 'falls safe' village resource maps and independent-living literature. This could be further enhanced through strong networks with allied health staff, community nurses and home modification organisations.

The potential of a well-defined and well-utilised referral process between community pharmacists and other health professionals to address falls prevention, should not be underestimated. Referral of clients with obvious risk factors for falls (e.g. problems with vision or balance) could strengthen professional networks and further promote the pharmacist as a 'responsible provider' within the community. Referral points should include allied health practitioners such as physiotherapists, occupational therapists and optometrists, and established groups offering walking and gentle exercise classes.

All of the opportunities mentioned could be enhanced if health promotion professionals in falls prevention could be called upon to help increase the capacity and confidence of the community pharmacist to provide these services. The high response rate to the falls prevention pharmacists survey, plus the interest expressed in various modes of falls-related professional development, indicate that the pharmacists surveyed do want to become further involved in falls prevention. Given the many federal and state falls prevention initiatives and programs currently taking place throughout Australia, now appears to be an opportune time to link these efforts with the apparent readiness of pharmacists to further engage in falls prevention.

In the light of our findings, it is promising to see moves by major organisations such as the Pharmaceutical Society of Australia to promote and support falls prevention activities in community pharmacies.³² It is particularly heartening that such promotions include a wide diversity of strategies, including education of counter staff, keeping of medication records, and distribution of fact sheets (to clients) covering important falls issues such as exercises for flexibility, osteoporosis and wise use of medicines.

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