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Recommendations for promoting the engagement of older people in activities to prevent falls

L Yardley, N Beyer, K Hauer, K McKee, C Ballinger, C Todd

Objective: To develop recommendations for promoting uptake of and adherence to falls-prevention interventions among older people.

Design: The recommendations were initially developed from literature review, clinical experience of the core group members, and substantial qualitative and quantitative studies of older people’s views. They were refined through a consultation process with members of the falls-prevention community, drawing on Delphi survey and nominal group techniques. Transparency was enhanced by recording and reporting aspects of the iterative consultation process such as the degree of consensus and critical comments on drafts of the recommendations.

Setting: The recommendations were developed and refined at three meetings of the core group, and through internet-based consultation and two meetings involving members of the wider falls-prevention community.

Participants: The authors developed the recommendations incorporating the feedback from the researchers and practitioners responding to a broad-based internet consultation and consulted in the meetings.

Results: A high degree of consensus was achieved. Recommendations addressed the need for public education, ensuring that interventions were compatible with a positive identity, tailoring interventions to the specific situation and values of the individual, and using validated methods to maintain longer-term adherence.

Conclusion: These recommendations represent a consensus based on current knowledge and evidence, but the evidence base from which these recommendations were developed was limited, and not always specific to prevention of falls. To increase the effectiveness of falls-prevention interventions, further research is needed to identify the features of falls-prevention programmes that will encourage older people’s engagement in them.

METHODS

Generation of recommendations

The development of the recommendations commenced with a meeting of nine members and associate members of ProFaNE Workpackage 4 (a workpackage of researchers and clinicians addressing the psychological aspects of falls prevention) in September 2005. This group (which included all the authors) identified seven topics that seemed relevant to engaging older people in falls-prevention programmes.

To provide an evidence base to inform our recommendations, we first carried out two large qualitative studies and a survey of older people’s views on falls prevention.

A new method for developing guidelines has recently been proposed, which combines the Delphi survey method of eliciting anonymous opinions from people who are geographically dispersed with the opportunity for debate provided by the nominal group technique. This new approach was explicitly intended for use in situations where the evidence base is weak, but there is a need to make recommendations for improvements in clinical practice and research. In this situation, the evidence base must be supplemented by a consensus based on the subjective views of those working in the field, making this process explicit and transparent by reporting aspects of the consultation process such as the degree of consensus and reasons for disagreement. We utilised this approach for the development of our recommendations, modifying the method to fit the requirements of our particular context. The aim of this paper is to describe the process and outcomes of developing recommendations for promoting the engagement of older people in falls prevention.
recommendations for engaging older people in falls prevention

circumstances, and examined which factors were most closely associated with intentions to undertake strength and balance training to prevent falls. We were also able to draw on a recently published narrative systematic review of older people’s views of falls prevention.11 Because of the limited evidence base relating specifically to falls-prevention interventions, we decided to also draw on a wider literature, including basic psychosocial theory and research into participation in other preventive healthcare activities.

One or more individuals took responsibility for developing a draft recommendation relevant to each topic, and for compiling an evidence base for each recommendation. These were then developed and revised in discussion with the whole group.

Consultation process

This process involved the further development and refinement of the recommendations via iterative discussions involving the core group (the co-authors), and a series of wider consultations both within and outside the membership of ProFaNE. Table 1 summarises the process, with further details provided below. A description of the key changes to the recommendations made during this process is given in the Results section.

1. The initial meeting, during which seven key topics were identified and the core group established, formed part of a larger meeting of all workpackages in the ProFaNE network. The key topics were therefore presented to the 49 people working in the field of falls prevention who attended the ProFaNE meeting, to obtain rapid feedback regarding the proposed topics.

2. Seven outline recommendations were subsequently developed and posted on the Workpackage 4 discussion board on the ProFaNE website, for refinement through discussion with all members of Workpackage 4.

3. Once the draft outline recommendations had been agreed within Workpackage 4, we carried out a formal website consultation to permit anonymous rating and commentary on our proposed recommendations from a wide range of professionals working in falls prevention (including medicine, nursing, physiotherapy, occupational therapy, psychology, management and so on). For 6 weeks, the recommendations were presented on the ProFaNE website to 171 researchers and clinicians working in the field of falls prevention, whose details were registered on the ProFaNE website. Any of these ProFaNE members logging onto the website during this period were automatically invited to indicate their level of agreement with each recommendation on a 9-point scale ranging from 1 (strongly agree) to 9 (strongly disagree), and to give a brief written explanation of the reasons for each of their ratings. Of the 35 respondents, 17 were clinicians, 13 were academics and 5 belonged to other occupations (eg, epidemiologist, hospital manager, PhD student). Most people (n = 19) had between 2 and 5 years of experience working in the field of falls prevention, 11 had >5 years experience and 5 had <2 years experience.

4. We then carried out a face-to-face consultation with a large group of people working in the field of falls prevention, five of whom had also participated in the internet consultation process, in order to permit in-depth debate about the recommendations. A half-day workshop was convened during an annual meeting attended by 31 people, comprising 12 clinicians, 12 academics and 7 people who listed other occupations (eg, combined clinician and researcher). Most (n = 19) had >5 years experience in the field of falls prevention, nine participants had 2–5 years of experience and two had <2 years of experience. The core group member with primary responsibility for each recommendation gave a 10 min presentation outlining the recommendation, the evidence on which it was based, and the ratings and comments from the website consultation. Extensive discussion followed each presentation. To ensure accurate consideration and reporting of the comments made at the workshop, it was audiotaped and transcribed, and notes taken to aid interpretation of the transcript.

5. Written drafts of the recommendations and the evidence on which they were based were then completed by the co-authors and circulated within this core group. The co-authors critically discussed the content and presentation of the recommendations and agreed formats for dissemination in a final meeting. After a final draft of each recommendation had been circulated, LY took responsibility for collating the recommendations into draft documents for dissemination, incorporating comments on the drafts from all co-authors.

RESULTS

Tables 2 and 3 present the final recommendations, a summary of the evidence on which they were based, and the website ratings of the level of agreement with each recommendation. Agreement with the early draft of the recommendations presented on the website was already uniformly high, with a median agreement score at or just one point lower than the maximum agreement. Although at least 75% of the ratings for every draft recommendation were firmly in agreement (scoring at least 3 out of 9), a few individuals registered mild disagreement with some recommendations (giving isolated scores of 6 or 7 out of 9). Constructive critical comments made
The wording of the fifth recommendation was changed to use the term “self-management” rather than the term “self-help”, and to note that the health professional must supervise activities to ensure safety. This was because commentators noted that not all older people were able and willing to undertake falls-prevention activities independently, and that the health professional played a crucial role in ensuring the right level of support. Comments on the sixth recommendation focused on the weakness of the evidence on which to base recommendations for using specific methods to promote adherence in falls-related interventions, and so the wording of this recommendation highlights the need to assess the processes that influence adherence in this context.

**DISCUSSION**

The recommendations we developed highlighted the need for: disseminating the message that physical activity can improve balance; promoting the immediate benefits of interventions; ensuring that interventions support a positive identity and confidence in self-management; tailoring interventions to the specific situation and values of the individual; using social encouragement to engage older people; and employing validated methods to maintain longer-term adherence.

A number of limitations of the process of developing the recommendations need to be taken into account. A positive feature of the process was that the initial development of the recommendations was informed by substantial qualitative and quantitative studies of the views of a wide range of older people. However, further consultation with older people is required to confirm the acceptability and appropriateness of the final recommendations. A large number of clinicians and researchers contributed to the refinement of the recommendations, and expressed support for them. However, only a minority of those registered on the falls-prevention website rated the recommendations. Since all the experts attending the subsequent open meeting also endorsed the recommendations, we do not think it likely that the views of the non-respondents to our website consultation would have differed greatly; probably, they simply did not access the site during this period. However, only a qualitative process of achieving consensus for
Recommendations for engaging older people in falls prevention

<table>
<thead>
<tr>
<th>Recommendation (clarification)</th>
<th>Rating</th>
<th>General theory/evidence</th>
<th>Falls-related theory/evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Utilise a variety of forms of social encouragement to engage older people in interventions. (Uptake may be encouraged by the use of personal invitations to participate (preferably from a health professional) and positive media images and peer role models to illustrate the social acceptability, safety and multiple benefits of taking part. Uptake and adherence may be encouraged by ongoing support from family, peers, and professionals.)</td>
<td>1 (1-3)</td>
<td>Known social influences on health-related behaviour are encouragement, approval and social support from health professionals and other sources' and role models who provide an example of successful accomplishment of health-related goals. Research in older people indicates that concern about social disapproval poses a barrier to undertaking physical activity, although social support, positive media images and real-life examples of ordinary people doing physical activity could promote greater physical activity.</td>
<td>A systematic review of views of falls-prevention programmes found that views about what lifestyle changes are acceptable vary widely, and that people have different needs and desires in relation to prevention programmes.</td>
</tr>
<tr>
<td>4. Ensure that the intervention is designed to meet the needs, preferences and capabilities of the individual. (There is a need to consider the individual's lifestyle, values, and ethnicity, and environmental factors such as place of residence and access to services.)</td>
<td>2 (1-3)</td>
<td>Psychological research suggests that adherence to interventions can be promoted by addressing the specific beliefs, goals and difficulties of the individual relevant to participation.</td>
<td>A qualitative study of the views of 66 older people on falls prevention advice found that participants rejected advice that they felt did not suit their circumstances.</td>
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<td>5. Encourage confidence in self-management rather than dependence on professionals, by giving older people an active role. (Although some supervision is necessary for safety, the older person should be able to select from different interventions, different formats of the same intervention, or from among a range of intervention goals.)</td>
<td>1 (1-2)</td>
<td>Giving the individual an active role in selecting activities and setting goals increases motivation and self-efficacy (ie, confidence in the ability to carry out a behaviour), which in turn promotes adherence.</td>
<td>Self-efficacy exerts a consistently powerful influence on the exercise behaviour of older adults, particularly its initiation, whereas self-regulatory skills are important in sustaining exercise behaviour.</td>
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<td>6. Draw on validated methods for promoting and assessing the processes that maintain adherence, especially in the longer term. (These could include encouraging realistic positive beliefs, assisting with planning and implementation of new behaviours, building self-confidence, and providing practical support.)</td>
<td>1 (1-3)</td>
<td>A review of research on adherence to prolonged therapeutic programmes concluded that it is most effective to combine a variety of approaches that have been shown to increase adherence.</td>
<td>Findings from research (more qualitative) on attitudes to falls prevention interventions suggest that uptake and adherence are indeed influenced by factors identified as important to adherence to other therapies, such as practical support, encouragement from therapists, the belief that the intervention is necessary and effective, and confidence in being able to carry it out.</td>
</tr>
</tbody>
</table>

Median agreement rating (with interquartile range in brackets) on the 9-point scale used in the internet consultation.

further refinements of the recommendations was used. Therefore, further quantitative evaluation of the views of a purposive sample of professionals working in the field of falls prevention could confirm their appropriateness.

These recommendations represent a consensus based on current knowledge and evidence, but the evidence base from which these recommendations were developed was limited, and not always specific to falls prevention. To increase the effectiveness of falls-prevention interventions, further research is needed to experimentally confirm the features of falls-prevention programmes that will encourage older people’s engagement in them.

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