

Work Package 4 - Psychological Aspects of Falling

Recommendations for Promoting the Engagement of Older People in Preventive Health Care

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1. Raise awareness in the general population that undertaking specific physical activities has the potential to improve balance and prevent falls.
2. When offering or publicising interventions, promote benefits which fit with a positive self-identity.
3. Utilise a variety of forms of social encouragement to engage older people in interventions.
4. Ensure the intervention is designed to meet the needs, preferences and capabilities of the individual
5. Encourage self-management rather than dependence on professionals by giving older people an active role
6. Draw on validated methods for promoting and assessing the processes that maintain adherence, especially in the longer-term.

1. Raise awareness in the general population that undertaking specific physical activities has the potential to improve balance and prevent falls.

Uptake may be encouraged by promoting greater awareness among older people, their families and carers, and health professionals of how undertaking specific physical activities (e.g. exercises to improve strength and balance) may contribute to improving balance and reducing falls risk.

General theory/evidence. In order for people to make well-informed, rational, positive choices about what forms of health-promoting behaviour they should carry out it is necessary for them to have basic information about the benefits of preventive behaviours (Michie et al., 2002). Psychological theories of behaviour change have shown that providing information that promotes realistic positive beliefs about the possibilities for preventive action is an essential first step towards encouraging people to take action, even though it is now well established that simply providing information is seldom sufficient to bring about significant behaviour change (Armitage & Conner, 2000).

Falls-related theory/evidence. This recommendation was originally prompted by evidence from qualitative research that there appears to be very widespread ignorance among older people that balance functioning can be improved and falls risk reduced by undertaking activities such as strength and balance training (Commonwealth Department of Health and Aged Care, 2001; Yardley et al., 2006). Lack of awareness of proactive methods of improving balance may contribute to low uptake of falls prevention interventions if older people assume that falls prevention consists of activity restriction or the use of aids and home modifications, since these activities may be incompatible with their goals and identity (see recommendations 2 and 4). It may be helpful to raise awareness in the general population and not only among older people. The opinions of others, in particular health professionals and family, have a major influence on older people's decisions whether to participate in falls prevention programmes (see recommendation 3). Qualitative research indicates that advice from family members, carers, and even some health professionals, currently tends to emphasise avoiding risky activity rather than engaging in activities to improve balance (Yardley et al., 2006; Yardley et al., in press). Informing the general population about the potential benefits of strength and balance training may therefore indirectly influence older people's views, and counteract the common fatalistic view that poor balance and increasing falls risk are an unavoidable consequence of aging (Simpson et al., 2003). It may also be useful to raise awareness in particular of the potential benefits of activities (such as those used in strength and balance training) that specifically improve balance. The role of exercise in maintaining fitness, strength and suppleness is widely understood, but the importance of undertaking specific physical activities in order to maintain good balance capabilities is much less well known.

Expert consultation. This recommendation provoked discussion about the strength of the evidence base for recommending strength and balance training for the general population of older people. A recent meta-analysis concluded that interventions that included strength and balance training were equally effective for high risk and lower risk populations of older people (Chang et al., 2004), and many reviews of the topic have concluded that strength and balance training should be recommended for all older people (Chang et al., 2004; Kannus et al., 2005; Skelton & Todd, 2004). However, it is unlikely to prove cost-effective to provide the entire population with the individualised training that has the best established effectiveness (Gillespie, 2004), and the effectiveness of less intensive interventions at a population level is currently unknown. Consequently, this recommendation has been cautiously worded to suggest that awareness at a population level should be raised regarding the *potential* benefits of these

activities.

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2. When offering or publicising interventions, promote benefits which fit with a positive self-identity.

Uptake of falls prevention interventions may be enhanced by emphasising the positive benefits which are likely to accord with desirable self images for older people, in addition to those which reduce falls risk. Examples of such benefits include increased independence and greater confidence.

General theory/evidence. The theoretical rationale for this recommendation derives from two main sources. The first is social cognition models of health behaviour (such as the Theory of Planned Behaviour, Ajzen, 1985) in which the perception of subjective norms is theorised to influence behaviour; recent research has shown that prediction of behaviour may be improved by taking into account relevant aspects of social identity – most importantly, the extent to which the individual considers the behaviour to be appropriate for someone like themselves (Sheeran & Orbell, 2000; Terry et al., 1999). The second is psychological theories about identity, both self and social (for example, Social Comparison theory, Festinger 1954) which explain how valued characteristics of self are identified, and also how the self is represented.

Falls-related theory/evidence. Research has suggested that for some older people, the acknowledgement of a fall might be problematic for a variety of reasons, including fear of negative stereotyping (Ballinger & Payne, 2000; Health Education Board for Scotland, 2001), a belief that falls are an inevitable consequence of ageing and therefore not worthy of attention (Simpson et al., 2003) or embarrassment about loss of control (Yardley & Smith, 2002). Similarly, research studies which have specifically addressed views about falls prevention interventions, both in inpatient and community settings, have suggested a range of factors which can negatively influence uptake, including a perception that falls prevention advice was for other 'disabled or elderly people' (Braun, 1998; Yardley et al., 2006), lack of familiarity with the term 'fall prevention' (Commonwealth of Australia, 2000) and a view of falls prevention information as potentially alienating (Simpson et al., 2003; Yardley et al., 2006). This recommendation therefore derives from research suggesting that participation in falls prevention programmes that is perceived to impact negatively on self-image is likely to be unattractive to older people and thus reduce likely uptake. Conversely, participation in interventions which are viewed as improving skills or characteristics which are valued by older people are likely to be more popular. Reasons commonly cited by older people for participation in falls prevention initiatives include the desire to be proactive in managing their own health needs, maintenance of independence and psychosocial benefits such as improved confidence (Ballinger & Clemson in press; Yardley et al, in press). There is evidence that strength and balance training is valued by older people for its potential to maintain functional capabilities and thus avoid disability and dependence, to enhance general health, mobility and appearance, and to be interesting, enjoyable and sociable (Yardley et al., in press). These characteristics are all compatible with a positive identity.

Expert consultation. As originally stated, this recommendation suggested 'emphasising advantages ... rather than a reduction in undesirable events (e.g. fewer falls)'. However, discussion indicated that there was confusion around the meaning of this alternative, with some people interpreting this to mean that the consequences of participation in preventative interventions on falls risk should not be mentioned. In order to reduce any ambiguity, this recommendation has therefore been shortened to emphasise an inclusion of outcomes which are likely to be meaningful to and more highly valued by older people.

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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.

General theory/evidence. A wide range of social influences are known to impact on health-related behaviour, including encouragement, approval and social support from health professionals and other sources (WHO, 2003) and role models who provide an example of successful accomplishment of health-related goals (Bandura, 1997). There is evidence from research into engaging older people in general exercise and physical activity that concern about social disapproval poses a barrier to undertaking physical activity, while social support, positive media images and real-life examples of ordinary people doing physical activity can promote greater physical activity (King, Castro et al., 2000; King, Rejeski, et al., 1998; Ory et al., 2003).

Falls-related theory/evidence. Qualitative research suggests that social factors play a key role in people's decisions whether to participate in falls prevention interventions (Commonwealth Department of Health and Aged Care, 2001; McInnes & Askie, 2004). In a study assessing beliefs and attitudes towards falls prevention programmes in six European countries (Yardley et al., in press) a personal invitation from a trusted health professional was an important motivation for taking up an intervention, and approval and encouragement from family, friends and health professionals influenced initial and continued participation. Participation in group activities was naturally influenced by anticipated and actual positive and negative social contacts with members and leaders of the group. Qualitative research also suggests that a major barrier to participation is the perception by the majority of older people that falls prevention activities are only suitable for very old and frail people and are therefore not relevant to themselves (Yardley et al., in press; Yardley et al., 2006). This perception may be partly related to the perception of falls prevention as involving hazard reduction and activity restriction and ignorance of the potential of strength and balance training actively to maintain functioning (see recommendations 1 and 2). Conversely, those who are already old and frail may see strength and balance training as too strenuous and risky for themselves and therefore only suitable for people who are younger and fitter (Simpson et al., 2003). Quantitative research confirms that viewing strength and balance training as appropriate for someone like oneself is the foremost predictor of the intention to undertake these activities (Yardley & Todd, 2005). Therefore it may be valuable to use media images and peer role models to promote a positive social image of strength and balance training as a suitable activity for those who are still fit and active, in order to maintain their mobility and independence, while emphasizing that it can still be a safe and effective method of falls prevention for those at higher risk of falling.

Expert consultation. In its original form the recommendation proposed that *all* forms of social encouragement should be *maximised*, but comments and debate highlighted the risk that excessive social pressure could be potentially coercive and insensitive to the autonomy and freedom of choice of the individual, and so a less strong formulation was adopted. A further comment was that it would be useful to prioritise the most effective forms of social encouragement. However, there is currently no directly relevant research on which to base such a prioritisation, and the most effective form of encouragement may vary depending on the context and priorities of the individual (see recommendation 4 below), which is why we have simply recommended using a variety of methods.

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4. Ensure the intervention is designed to meet the needs, preferences and capabilities of the individual

A tailored personal approach - even in a group approach context – can greatly improve the chance of older people engaging with and maintaining an intervention programme. There is a need to consider the individual's lifestyle, values, and ethnicity, as well as environmental factors such as place of residence and access to services.

General Theory/Evidence. There is a strong theoretical rationale for this recommendation. It draws on: psychological models of behaviour change (Rutter & Quine, 2002), for example the transtheoretical (stages of change) model (Prochaska et al., 1992); and on models derived from health promotion theory, such as the Quality Health Outcomes Model (Mitchell et al., 1998). Evidence for the recommendation has accumulated in non-falls related research over many years. For example, many studies of adherence to medical interventions show the importance of a 'tailored' approach that determines the client's preferences (e.g., Christensen et al., 1990). Studies that have evaluated 'exercise on prescription' schemes have shown the importance of a tailored approach for adherence (Thurston & Green, 2004). A review of research evidence indicates that establishing preference for mode of exercise is linked to enhanced participation (Easterbrook et al., 2001). A recent evaluation of an exercise programme undertaken by a small (N=13) group of older Koreans found evidence for capabilities and lifestyle factors influencing adherence (Sin et al., 2005). The most frequent reasons given for non-attendance during the programme were health problems, family matters, and social occasions. Accessibility of the exercise environment was also cited as important for influencing adherence.

Falls-related Theory/Evidence. Evidence for the recommendation from falls-related research is sparser, but McInnes and Askie (2004), in a systematic narrative review of views of falls prevention programmes found that people have very different needs and desires in relation to prevention programmes, and views about what lifestyle changes are acceptable vary considerably. A qualitative study of 66 older people examining views on falls prevention programmes (Yardley et al., 2006) found that participants rejected advice that they felt did not suit their circumstances, and also tended to see such advice as patronising. Resnick and colleagues (2005) carried out a qualitative study of willingness to exercise after hip fracture in older women, and found 'individualized care' to be one of the factors nominated to increase willingness, while 'constraints to exercise' was nominated as decreasing willingness.

Expert Consultation. Experts who consulted the recommendation as posted on the ProFaNE website in the great majority endorsed the recommendation. Relatively few notes of caution could be found among the posted comments, with the only notable concern relating to potential practical limitations on the implementation of the recommendation. The audience at the MobEx 2006 presentation offered few suggestions for modification of the recommendation, finding it clear and precise and resonating with their own expert knowledge of work in this area and the evidence base for promotion of uptake and adherence of falls intervention programmes. The few cautionary comments that emerged during the discussion focused on simplifying the recommendation. However, the general consensus was that the recommendation should be accepted without further modification.

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5. Encourage self-management rather than dependence on professionals by giving older people an active role

Participation in, and adherence to, an intervention will be maximised if the older person can choose or modify the intervention. While some form of supervision will be necessary to ensure safety, the older person should be enabled wherever possible to select from between different interventions, different formats of the same intervention, or from among a range of intervention goals.

General Theory/Evidence. There is strong theoretical rationale for this recommendation. It draws on: social learning theory (Bandura, 1977), particularly its emphasis on the importance of perceived control and self-efficacy for the regulation of behaviour; motivation models, in which self-setting of goals and objectives influence behaviour (Oettingen & Gollwitzer, 2004); and models of empowerment, particularly those in the disability and literature, in which an active role is required in order to counteract prevailing stereotypes and oppressive social norms (Swain et al., 1993). Evidence for the recommendation can be found in non-falls related research over many years. Studies have demonstrated that a participatory relationship between client and professional (i.e. an 'active' patient) is effective in promoting adherence (Hall et al., 1988), that adherence to complex treatments or interventions is enhanced via programmes of self-regulation (Glasgow et al., 1989), and that self-efficacy is the most significant variable for discriminating between participants and non-participants in 'workplace wellness' programmes (Alexy, 1991). Self-efficacy exerts a consistently powerful influence on the exercise behaviour of older adults, particularly its initiation, with self-regulatory skills more important in sustaining exercise behaviour (Shutzer & Graves, 2004). Other research suggests that once initiated, exercise increases self-efficacy levels, which in turn improve exercise adherence (Li et al., 2001).

Falls-related Theory/Evidence. Evidence for the recommendation from falls-related research is sparser, but Easterbrook and colleagues (2001), after weighing the evidence in their international review of falls intervention studies, put forward as a key recommendation that 'For interventions to succeed, older people must be fully involved'. Resnick and colleagues (2005) carried out a qualitative study of willingness to exercise post hip fracture in older women, and found 'self-efficacy' and 'goal identification' to be among the factors nominated to increase willingness to exercise.

Expert Consultation. Experts who consulted the original recommendation when posted on the ProFaNE website provided strong endorsement (although this recommendation received the lowest level of endorsement across all recommendations). In its original form the recommendation contained the term 'self-help' in place of 'self-management', and there were notes of caution among the posted comments that a 'self-help' approach is perhaps not suitable for all interventions or for all clients. Other comments indicated that while a 'self-help' model was perfectly fine, the important role of the health professional in maximising uptake and adherence should not be ignored.

The response to the recommendation from the MobEx 2006 audience was very favourable. Again, the issue of the exact meaning, and potentially varied interpretations, of the term 'self-help' produced the most discussion. It was decided that the term 'self-management' was more familiar to the practitioner/professional community, and that there would be less confusion arising from the use of this term than from 'self-help'.

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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.

General theory/evidence. There is a substantial evidence-base demonstrating the effectiveness of a range of well-established techniques for changing health-related behaviour. 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 (WHO, 2003), and that potentially important ingredients include: a supportive partnership relationship with the therapy provider (see recommendations 3 and 5; good practical support (e.g. access and appropriate supervision); promoting the belief that the therapy is necessary and effective; building confidence in being able to carry out the therapy; developing skills for developing and maintaining new behaviours (such as goal-setting, planning, self-monitoring, and self-reward); and tailoring the therapy to the individual (see recommendation 4)

Falls-related theory/evidence. Findings from research (mainly qualitative) on attitudes to falls prevention interventions suggest that uptake and adherence is indeed influenced by factors 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 (McInnes et al., 2004; Yardley et al., 2005; Yardley et al., 2006). This literature provides the basis for the recommendation that many of these validated methods for encouraging adherence should prove beneficial in the field of falls prevention, but there have been no studies of their effectiveness in this particular context.

Expert consultation. Comments on this 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 this recommendation highlights the need to assess the processes that influence adherence in this context.

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