Note: This article will be published in a forthcoming issue of the *Journal of Aging and Physical Activity*. This article appears here in its accepted, peer-reviewed form; it has not been copy edited, proofed, or formatted by the publisher.

Section: Original Research

Article Title: Older Adults' Uptake and Adherence to Exercise Classes: Instructors' Perspectives

Authors: Helen Hawley-Hague[1], Maria Horne[1], Dawn A. Skelton[2], and Chris Todd[1]

Affiliations: [1]School of Nursing, Midwifery and Social Work, University of Manchester, Manchester, UK. [2]School of Health, Glasgow Caledonian University, Glasgow, UK.

Running Head: Older adults take-up/adherence to exercise classes

Journal: *Journal of Aging and Physical Activity*

Acceptance Date: June 29, 2015

DOI: http://dx.doi.org/10.1123/japa.2014-0108

"Older Adults' Uptake and Adherence to Exercise Classes: Instructors' Perspectives"
by Hawley-Hague H. Horne M, Skelton DA, Todd C
Journal of Aging and Physical Activity

Older adults' uptake and adherence to exercise classes: An instructor's perspective.

Hawley-Hague [1], H. Horne [1], S. Skelton [2], D.A. Todd, C [1]

[1]School of Nursing, Midwifery and Social Work

University of Manchester

[2]School of Health

Glasgow Caledonian University

Running header: Older adults take-up/adherence to exercise classes

Corresponding author:

Dr Helen Hawley-Hague
University of Manchester
Nursing, Midwifery and Social Work
Floor 6, Jean McFarlane Building
Oxford Road
Manchester
M13 9PL
Helen.Hawley-Hague@manchester.ac.uk
Tel: 07810 358568.

"Older Adults' Uptake and Adherence to Exercise Classes: Instructors' Perspectives"
by Hawley-Hague H. Horne M, Skelton DA, Todd C
Journal of Aging and Physical Activity

Abstract

Exercise classes provide a range of benefits for older adults, but adherence levels are poor. We know little of instructors' experiences of delivering exercise classes to older adults. Semi-structured interviews, informed by the Theory of Planned Behaviour (TPB), were conducted with instructors (n=19) delivering multi-component exercise classes to establish their perspectives on older adults' uptake and adherence to exercise classes. Analysis revealed 'barriers' related to identity, choice/control, cost, venue and 'solutions' including providing choice, relating exercise to identity, a personal touch and social support. 'Barriers' to adherence included unrealistic expectations and social influences and 'solutions' identified were encouraging commitment, creating social cohesion and an emphasis on achieving outcomes. Older adults' attitudes were an underlying theme, which related to all barriers and solutions. The instructor plays an important, but not isolated, role in older adults' uptake and adherence to classes. Instructors' perspectives help us to further understand how we can design successful exercise classes.

Key words: Qualitative, attitudes, successful

In later life exercise brings physiological and psychological benefits, reducing illness, improving functional ability and well-being (Baker, Atlantis, & Fiatarone Singh, 2007). Programmes that include specific strength and balance training (SBT) significantly reduce the risk and rate of falls (Gillespie et al., 2012) and have been found to bring wider social benefits (Hedley, Suckley, Robinson, & Dawson, 2010; Stathi, Mckenna, & Fox, 2010).

However, inactivity increases with age and less than a third of older adults report any regular exercise (Carlson, Fulton, Schoenborn, & Loustalot, 2010). Even when older adults initiate exercise they often discontinue involvement within six months (Jancey et al., 2007). Despite all of the benefits of SBT, adherence to SBT programmes is also poor (Nyman, & Victor, 2011). The literature suggests that it is in the first six months that an older adult commits to attending a class and it is accepted that this is the time-frame for the behaviour to become embedded (Prochaska & DiClementi, 1983; Stiggelbout, Hopman-Rock, & Van Mechelen, 2006).

Older adults' uptake and adherence to exercise classes revolves around factors such as attitudes, expectations, and whether expectations are fulfilled (Hays, Pressler, Damsuh, Rawl, & Clark, 2010; Yardley, Donovan-Hall, Francis, & Todd**,** 2007). The Theory of Planned Behaviour (TPB) has been particularly useful for assessing older adults' attitudes in relation to exercise uptake and adherence (Hawley-Hague et al., 2014; Lucidi, Grano, Barbaranelli, & Violani, 2006; Yardley, Donovan-Hall, Francis, & Todd, 2007). TPB is based on three main concepts: (i) perceived behavioural control (PBC), (ii) attitudes (outcome expectations) and (iii) social influences (Ajzen, 1988). PBC is considered to be "the perceived ease or difficulty of performing the behaviour and it is assumed to reflect past experience as well as anticipated impediments and obstacles" (Ajzen & Driver, 1992, p. 208). The second concept, attitude, concerns perceived advantages and disadvantages of performing the behaviour (outcome expectations). The third concept, social influence, includes several constructs;

subjective norms (perceived beliefs of other people e.g. family), perceived social support (support from others for behaviour) and modelling (following observed behaviour of others). The three elements of TPB are important in influencing intention (Ajzen & Driver, 1992), as supported by a number of exercise studies amongst older adults (Dean, Farrell, Kelley, Taylor & Rhodes, 2007; Rhodes et al., 1999).

The TPB has also been used to understand instructors' attitudes towards their participants' participation in exercise classes (Hawley-Hague et al., 2014; Hawley, Skelton, Campbell, & Todd, 2012). Instructors' attitudes in relation to each individual TPB construct have been explored (Hawley et al., 2012), as well as an assessment of instructors' overall attitudes (Hawley-Hague et al., 2014). Using TPB questionnaires instructors have been found to have positive attitudes to older adults' participation in exercise classes. However, clinical background, delivering in NHS settings and in care homes was negatively associated with attitudes related to the outcomes instructors' perceived older adults could gain, the role instructors and others could play (social influences) and instructors' beliefs that older people could carry out the task (PBC). Instructors' attitudes were not found to be associated directly to older adults' attendance and adherence to classes (Hawley-Hague et al., 2014).

Alongside older adults' attitudes, perceived high quality of the programme has also been found to be important in establishing exercise behaviour during the first six months of a programme (Stiggelbout et al., 2006). Instructors have the potential to have a key role in influencing attitudes, ensuring a good quality programme is delivered and that expectations are fulfilled. Instructors' attitudes and age were not linked directly to older adults' attendance and adherence to classes, but attendance and adherence were positively associated with instructors' characteristics such as personality and experience (Hawley-Hague et al., 2014). Adherence is also highly related to social support and group cohesion, particularly in

the first six months (Estabrooks et al., 2004; Hawley-Hague et al., 2014, Oka, King, & Young, 1995), both of which are factors instructors can profoundly influence.

There is sparse literature on the instructors' perspective or experience of delivering exercise classes to older adults, even though they could provide key information about what they perceive makes an exercise class for older adults work or fail. We undertook a descriptive qualitative study, as part of a larger mixed methods study, to explore instructors' perspectives and provide context and further understanding of previous quantitative work (Hawley et al., 2013; Hawley et al., 2012). Instructors came from a range of backgrounds and delivered a variety of multi-component exercise classes (e.g. at least two components of the following; aerobic, strength, balance, stretching) to older adults.

Methods

Qualitative methodology enables us to explore instructors' experiences of delivering exercise to older adults and their perceptions of older adults' behaviour, motivation to exercise, views on exercise and barriers to exercise (Neergaaurd, Olesen, Anderson, & Sondergaard, 2009), as well as their success and failures in delivery. This study uses qualitative description and remains close to the data (does not use pre-defined coding), giving a comprehensive summary of the instructors' experiences from promoting uptake to establishing adherence. Qualitative description has been found to link closely to existing knowledge, experience and clinical practice (Neergaaurd et al., 2009).

Recruitment and Sampling

We recruited from an existing cohort of 731 Level 3 instructors (the level of qualification required by health services in the UK to deliver to older adults) delivering multi-component exercise classes to older people in the Midlands/North England (see Hawley et al., 2012). Purposive sampling including opportunistic sampling (Patton, 2002), was used to

recruit participants for this qualitative study. This was a deliberate non-random method, which aimed to sample a group of people with particular characteristics to enhance understanding of individual experiences. To achieve maximum representation of important variables, 40 instructors were invited to participate. Instructors were sampled by age, gender, training undertaken, experience, working background, and by place of exercise delivery. Place of exercise delivery included sheltered housing (independent assisted living), clinical settings (where rehabilitation was delivered), leisure centres and gyms and community settings (local village halls, church halls). The majority of instructors delivered more than one class, and had a mix of small and large classes (range 5-25 people).

We interviewed instructors until we had reached data saturation and no new themes emerged. This occurred after interviewing 19 instructors. Written informed consent was given before the interviews commenced and interviews were digitally recorded. Because the evidence base suggests that older adults' attitudes are a primary factor related to uptake and adherence (Hawley-Hague et al., 2014; King, 2001; Rhodes et al., 1999), the interview schedule was informed by the TPB (Table 1). We asked instructors to discuss their classes and experiences in relation to older adults' attendance. This was to explore instructors' experiences of running classes and their views on older adults' motivators and barriers to intention, uptake and adherence to classes. Questioning was left open to give instructors the opportunity to share their experiences and to feel they had some control of the interview process. This approach aimed to reduce the risk of bias and the influence of the interviewer on the participant. Ethical approval was granted from the University of Manchester Committee on the Ethics of Research on Human Beings.

Analysis

Content analysis was adopted for this study using qualitative description as it enabled us to remain close to the data i.e. there were no pre-defined codes and coding came directly from the data (Neergaaurd et al., 2009). We examined the key concepts arising from the data, and whether experiences differed dependent on instructors' characteristics. Although the questions were informed by the TPB, we did not code specifically under the three constructs, but looked for recurring themes within the data. Initial open coding identified a large number of themes, selective coding then grouped these together into emerging categories. The data were analysed using NVivo 8 qualitative data analysis software (2008). The rigour of the analysis was checked by the lead researcher by returning to the data once themes had been identified and a second researcher (MH) blind checking samples of coding and analysis. Disagreements were discussed within the wider research team. Triangulation of the data was achieved through the presentation of preliminary findings to some of the instructors, where further feedback was given. It was only following coding and initial analysis of data that we looked to compare findings with the quantitative data taken from the original cohort and to assess whether the constructs of the TPB helped us to further understand the findings (Hawley et al., 2012; Hawley-Hague et al., 2014). Reflective practice was carried out throughout the research study. This included regular discussion within the research team before and after interviews and during analysis.

Results

Sixteen interviews lasting between 30-90 minutes were carried out with nineteen participants. Three interviews were carried out with pairs of instructors together on request. Sixteen instructors were women and three men. All instructors self-identified as "White British" and their mean age was 56.3 (range 23-78). Instructors had been delivering exercise

classes for between 12 months to more than 30 years and held a wide range of qualifications and backgrounds (Table 2 and Table 3). They delivered exercise classes in a variety of community settings, long-term care facilities and clinical health service settings (general practice, rehabilitation centres, hospitals). Data analysis revealed that instructors considered 'barriers' to uptake to their classes and found 'solutions' to motivate older adults to attend. They then discussed 'barriers' to adherence and the 'solutions' that they used to keep older adults attending long-term. Eleven different subthemes arose within these four themes as dictated by coding (Figure 1). The number of times each theme occurred within the data (Figure 1) shows that the instructors primarily talked about solutions. 'Participant attitude' was an underlying theme, which related to almost all of the subthemes.

Uptake

Barriers: Barriers to uptake were discussed within four subthemes: identity; choice; cost; venue. Instructors discussed initially attracting older adults to their classes and the barriers associated with this. They suggested that uptake of exercise classes primarily revolved around older adults' *attitudes* and that there were a range of intrinsic and extrinsic factors that influenced these attitudes. Instructors believed that older adults' negative attitudes towards classes were sometimes outside of their sphere of influence.

Instructors talked about whether classes fit with older adults' perceptions of themselves and their *identity*. They said that some potential participants did not feel exercise was relevant to them: "They don't think that they need it, 'there's nothing wrong with me...I'm all right just doing my housework" (Female, aged 66. EXTEND c.f. Table 2 for list of qualifications). Some older adults had a fear of the unknown and could not see themselves as the type of person who would join a class. Instructors also talked about how older adults could have their confidence and sense of identity undermined when they were told that they

could not or should not be attending a class. They reported that some family members suggested older adults should be taking it easy saying: "Are you sure this is doing you good mum? Sit down, put your feet up" (Female, aged 53, EXTEND, BACPR, PSI). Health professionals could also have a negative influence on older adults' sense of identity, with instructors reporting that the doctor had told the participant not to exercise saying things like: "…well you're eighty, what do you expect? …you should be doing your knitting" (Female, aged 53, EXTEND, BACPR, PSI). The majority of instructors worked freelance and because of this found it difficult to engage health professionals to promote their classes or refer people into their classes. The choice of 'branding' used when promoting a class could therefore be a barrier to engaging older adults when they were first thinking about attending a class. If the wrong language was used, which older adults did not identify with, then they could be dissuaded from attending, particularly if it sounded too strenuous: "I think the word exercise puts older people off full stop!…they see movement as having a sense and a purpose, exercise is something that you just want me to do" (Female, aged 48, EXTEND, Chair Based Leaders). Older adults needed to be able to identify with the class that was offered and feel that it was relevant to them. Instructors who delivered falls prevention exercise classes found that describing them as a falls class was a barrier: "Participants have said they don't want to come to a 'falls class" (Female, aged 41, PSI). It was felt that attending a 'falls' class was an indication of older age and frailty.

The importance of *choice* was highlighted as an important factor in decision making when older adults were considering attending a class. Older adults could be resistant to the idea of an exercise class if they did not feel that it was their own decision (i.e. PBC): "it's the telling…I'm referring you for a 12 week exercise programme, 'oh no you're not, cause I'm not going'... and they just don't want to be there, because it's not been their choice" (Female, aged 48, EXTEND, Chair Based Leaders). Instructors also said that family and partners

could make older adults feel that they didn't have a choice in attending: "I'll take you to this class and drop you off and I'll go and do my thing...and they might just feel that they're being dumped" (Male, aged 65, EXTEND). Older adults had to be motivated by their own reasons to attend. Feeling pushed into attending only led to either resistance to uptake or early drop-out.

Instructors identified the *cost* of the exercise classes as a barrier. Instructors said that older adults felt that they *should not* have to pay for classes, so it was fundamentally about attitude: "Some of its price...people are so used to getting things free, like they go to the NHS class and get picked up by a coach or a taxi or something" (Male, aged 65, EXTEND). Instructors felt that at times the provision of free rehabilitation through the health services medicalised the delivery of exercise and made older adults believe that it was either time-limited (there was no need to continue once they had been 'rehabilitated') or should be offered for free (if it is for my health then health services should fund it). Although cost was cited occasionally as a genuine barrier, it was more often discussed as something that accumulated with other factors to dissuade attendance.

Choice of *venue* was highlighted as an external factor that could be a barrier to engagement. However, this again linked with older adults' attitudes, for example instructors said that the venue could either reinforce participants' confidence or undermine it: "You go into a leisure centre, it can be quite big, quite intimidating, you get the person on reception who's not really interested…" (Female, aged 48, BACPR, PSI). This also links with older adults' identities and highlights the importance of the branding/language used when offering exercise. Instructors said it was a common perception that a leisure centre/gym was a place where you did vigorous exercise. The instructors raised specific issues in relation to older adults' attendance to classes in sheltered housing. They felt that people in sheltered housing were not interested in exercise classes: "…in sheltered housing, they seem quite reclusive

these people and often very reluctant to come…" (Male, aged 65, EXTEND). We explored whether instructors believed it was the abilities of participants within sheltered housing, compared to those attending community venues that made exercise attendance different in this setting. Was it perhaps that older adults living in sheltered housing were less able, living with more health problems and were therefore less motivated to attend? Instructors suggested it was a mix of issues, often less about ability and more about approach and attitude: "there's this cosseted mental approach in, to a certain degree in the sheltered schemes, unlike when you're more of an independent liver" (Female, aged 44, YMCA). They suggested that traditionally in sheltered housing there was an expectation that people would do things for you with less emphasis on remaining active so you could help yourself. Choice of venue could also become a barrier if it was not local to participants, as they were less likely to be motivated to attend if they had further to travel and had higher costs: "if they live a bit away they have got to pay for a taxi and you can imagine it gets quite expensive" (Female, aged 28, PSI, Physiotherapist).

Solutions. Solutions of the barriers to uptake were discussed within four sub-themes: provision and language to match *identity*; offering an opportunity to regain *control*, a personal touch; encouraging social support.

Instructors suggested ways in which barriers could be pro-actively overcome and positive attitudes could be developed. They suggested focusing on offering something different to mainstream exercise opportunities (identified as exercise provided in leisure centres/gyms to the general population/all ages). They identified types of provision which met with older adults' *identities*: "quite a lot of people are put off by gyms, so not exactly these words but something like, frightened of going to the gym but want to exercise?" (Male, aged 65, EXTEND). Instructors described offering exercise classes as an alternative to a gym, which they said was a positive motivator for older adults, as they believed they provided a

less intimidating environment. They also suggested a careful use of language, focusing on function and movement rather than 'exercise'. Instructors talked about re-branding falls classes, since a 'falls class' was seen as something negative and irrelevant to older adults: " …so what we did was term it as functional ability" (Female, aged 41, PSI). Referring to 'improving function' was seen as aligning with positive action that someone could take for themselves.

Instructors discussed how potential participants could be motivated by an instructor appealing to them to take back *control* and make positive *choices* in their life. This could be about a desire to feel better about themselves, lose weight, or a way of coping with bereavement of a loved one. Finding a key trigger relevant to each individual was an important motivational strategy. Instructors said that attending a class was often seen as a way for older adults to fill a gap and get out and about: "Their spouse has died, often that's a huge motivation" (Female, aged 65. Medau, KFA, YMCA). Instructors discussed participants being motivated by fear of loss of control over health or independence. This could be used as a motivational tool to engage older adults: "You've got to sit there and wait for someone to help you get dressed, make you a cup of tea, feed you…and it's that look of, horror really on their face" (Female, aged 48, EXTEND, Chair Based Leaders. Tai Chi). The exercise class could be branded as an opportunity for older adults to maintain their independence and therefore their control over their life. Instructors said it was important to have a *'personal touch'* when promoting classes.

Through advertisement it was difficult to get across to potential participants what the classes entailed and there were issues with selecting the right language and branding. They felt reported it was easier to promote the classes in person than to use advertisement. Therefore, instructors perceived their personal encouragement and reassurance as important to the uptake of classes (and overcoming language/branding issues). Instructors adopted a

number of strategies to promote attendance, such as emphasising the health benefits of exercise, providing free sample sessions and encouraging potential participants to come and watch a class: "If people ring up I say come and try it, you know, you're very welcome...you don't have to pay anything, come and see if you think it suits you..." (Female, aged 69, KFA). When promoting the classes with potential new participants they emphasised the positive outcomes to be gained. These might be physical and mental health improvements, but also the chance to attend social occasions: "Just had a little chat about things...but also the incentives to make them feel part of something bigger" (Female, aged 48, EXTEND, Chair Based Leaders). Some instructors said that having an older exercise instructor deliver the class made a difference to older adults' views of attending: "Most of them see me as…yeah role model…because you're active and bright" (Female, aged 65. Medau, KFA, YMCA). Instructors who were older felt that they could offer more understanding and that participants picked up on this: "so you can relate, relate your feelings to your class, and they know, you know how they feel' (Male, aged 65, EXTEND). However, from the data, younger instructors did not feel that their age impacted on older adults' experiences of exercise. It was more important that friendship and trust was established, this was the case with all instructors. It was important to establish a bond with potential participants even before they started attending the class.

The role of *social support* as a strategy for improving the uptake of classes, was a recurring theme throughout all of the interviews. Peer promotion and word of mouth were the main ways in which instructors said that they recruited new class participants. They needed to ensure that the first experience was one of enjoyment:

> I've heard one or two of them say, 'well we've told her it were, it were interesting and that we have, have a real, good time on an afternoon...', so their friends come, urm and they try it out…(Female Aged 43, YMCAFIT).

Once class participants started to enjoy the class, they then encouraged others, building up the instructors' client base. This peer to peer influence also occurred in instructors' descriptions of falls prevention classes. Instructors found that older adults were more willing to attend a class if someone they knew had been before: "We have had**,** ooh, so and so has been on that course, you'll love it, you'll find it really good…" (Female, aged 53, EXTEND, BACPR, PSI). Instructors also talked about how they could engage families as a physical motivator, with family and spouses attending together: "I have a gentleman at the moment who I am trying to get in the Parkinson's healthy bones class, and both his daughters are going to go with him" (Female, aged 38, PSI, Physiotherapist). Partners and relatives often provided practical support, such as transport to classes. The instructors discussed how family could positively encourage participation and support self-efficacy. Through encouragement they could build older adults' confidence, increasing their sense of *choice/control*. It was important that support was given to enable older adults to participate in something of their choice, rather than feeling coerced into attending a class.

Instructors also discussed how health professionals had an important social influence. Instructors tackled barriers to exercise through the use of a referral system. If they could, instructors would engage with health professionals and provide information about suitable exercise classes, which built older adults' self-efficacy: "... we now have doctors who are saying I think you ought to go, to this, um, and obviously, they take that, quite seriously then…" (Female, aged 48. PSI, EXTEND, BACPR). Exercise instructors said that referral to the class made older adults feel more confident about the quality of the delivery and confident that the instructor was aware of their health issues: "She said you know what my blood pressure is, you know what tablets I take, you know what's wrong with me, therefore I feel confident to come here*"* (Female, aged 53, EXTEND, BACPR, PSI). All instructors thought that health professionals had an important role to play in promoting exercise classes.

They said that older adults would often attend if a health professional asked them to and that their engagement was a way to recruit participants and tackle any negative attitudes they might hold. However, instructors delivering conditions specific classes (e.g. PSI, Otago, BACPR instructors) had better established links with health professionals than others (e.g. EXTEND, YMCA).

Adherence

Barriers. Barriers to adherence were discussed within two subthemes: expectations and social influences. Instructors identified that the reasons for drop-out once someone had started a class were often related to participants' attitudes and whether instructors' delivery and the class had met the participants' *needs and expectations*. Instructors said expectations had to have been met when participants first attended the class. If the participant had been very active all their life and felt that the class did not meet their needs (e.g. was not active enough) they may not continue to attend:

> …she said it wasn't hard enough, because she says, 'I used to come here before...more of a dance class, so it was all standing…' so she said, in her mind she knew how fit she had been in the past, and she was wanting to try and maintain that level, and the class wasn't the level for that (Male, aged 65, EXTEND).

Instructors felt that at times older adults had unrealistic expectations of what they could physically achieve or they attended the wrong class for their ability. Instructors talked about the importance of person-centred delivery, ensuring that the class met individual need. However, they indicated that even if delivery was person-centred, on some occasions, if the participant has unrealistic expectations or attended the wrong type of class, drop-out was unavoidable. This was an issue which occurred more regularly for instructors who delivered more general community exercise classes than those working in healthcare settings.

Social influences could at times have a negative influence on older adults' adherence to exercise classes. In long-term residential care, staff could be a barrier to older adults' attendance at classes. Instructors talked about staff bringing different residents every week and at times they would not bring people who really wished to attend: "it's the help of the care assistants or lack of, urm to bring people into your session…" (Female, aged 48, EXTEND, Chair Based Leaders). Older adults within long-term care were often reliant on care staff to get them to the class as they were not independent enough to do this alone and instructors were constrained by health and safety issues (e.g. insurance would not allow them to assist). Instructors said that although peers played a major role in motivating potential class participants to attend initially, peers could also cause drop-out from a class: "They tend to go in two's…so if one drops off, the other one will drop off…they lose confidence" (Male, aged 78, YMCA, EXTEND). Drop-out was associated with a lack of confidence to attend alone. Instructors reported that if participants were established class members, then they only dropped out because they were left with no choice. This could be related to their own health but was often because they were caring for partners, relatives or grandchildren: "It's been due to ill-health, um...so, um, dropout usually tends to be for a reason. Not that they've not enjoyed the sessions" (Female, aged 44, YMCA, Otago). Instructors commented on older adults leaving exercise classes when there was a change of instructor and a loss of personal touch. This was felt to relate to either instructor personality or a change in exercise delivery:

> I took over from a lady who had taught a class for 20 years…they were waiting to catch me out…most people I kept…but one lady walked out because she was a friend of the previous instructor and because she didn't like the way I did it (Female, aged 65. Medau, KFA, YMCA).

The qualitative literature looking at older adults' adherence to classes has shown that a trusting relationship with the instructor is important (Stathi et al., 2010). Instructors talked

about the personal bonds and relationships that they had with participants. Thus, if the instructor changes, the relationship takes time to re-build.

Solutions. Solutions instructors outlined to overcome barriers to adherence were discussed within two subthemes: encouraging commitment and social cohesion. Instructors said that once older adults became established in the class they often did not drop-out or miss sessions unless for a valid reason. These participants became long-term adherers, loyal to the group and instructor: "I couldn't get there (myself) because the snow was that deep, one lady did manage to turn up, (laughs) and she'd walked it there...really determined" (Female Aged 43, YMCAFIT). Class participants may miss classes for a while (usually for health or caring reasons), but when they were able to attend again they would return. This was encouraged by the instructor who played an active role in *encouraging commitment*:

> I rang to find out how she was and she said 'me husband's sick and he doesn't want me to leave him, but when, when things you know, obviously progress to the conclusion, I will come back', and she has done...its helped her to focus on the life that she's got to start now (Female Aged 43,YMCAFIT).

Instructors fostered commitment by staying in touch with participants, making then feel missed when they were not there, helping them to return to class. They talked about having a warm and caring approach. They also actively fostered *social cohesion* recognising that it was this that kept participants attending long-term. They said that even if classes had different aims and outcomes, for example falls prevention classes focusing on physical outcomes, the group and social aspects were still important. The exercise class provided more than just a social opportunity, it provided something unique and helped participants to feel as though they were part of something bigger: **"**They get social network which is beyond their family, that understands them, that has maybe gone through the same thing" (Female, aged 45, Laban, KFA). Group cohesion was often achieved by the instructor pro-actively introducing other activities outside of the class, this helped bonding within the group and

deepened the relationship with the instructor: "we go out socially as well…we go to the cinema once a month" (Female, aged 65, KFA). This helped to combat the influence of peer drop-out, ensuring that all group members felt part of a group.

Instructors said that they believe class participants adhere long-term because of *outcomes achieved.* The instructors used this knowledge and emphasised improvements and benefits, ensuring expectations were met and setting realistic goals. It was a skill to achieve this in a group, they focused on delivery that was person-centred, tailored and offered progression: "you flex your class so that you give some people more challenging activity, while still keeping the less able on board" (Female, aged 44, Laban). Emphasising physical benefits was seen as more important to adherence in condition-specific classes and could be facilitated through goal-setting: "Find what motivates each individual…what they need and what they actually want to achieve, even though it's in a group, it's orientated to their individual goals" (Female, aged 56, PSI, Physiotherapist). Feelings of achievement were consolidated by feedback from the instructor: ""you'd praise them for what they've achieved, and so they know how they're progressing" (Female, aged 69, KFA). Instructors also said that they thought participants' feelings of achievement were strengthened by feedback between class participants. This could be facilitated and encouraged by the instructor:

> We frequently ask, can anybody think of anything they can do now that they couldn't do before? Like somebody yesterday said, 'when I went on holiday last year I couldn't get up the chalet steps, this year I got up them' (Female, aged 53, EXTEND, BACPR, PSI).

The instructors found that actively facilitating discussion which re-enforced older adults positive outcomes led to increased satisfaction with the class and higher adherence levels. Ensuring positive outcomes relied on the skill of the instructor to deliver a class that

offered enough variety to maintain interest and continue to challenge participants appropriately based on individual needs.

Discussion

Current evidence indicates that instructors play a key role in older adults' uptake and adherence to exercise classes (Hawley-Hague et al., 2014). This qualitative study strengthens that evidence through the exploration of instructors' experiences of older adults' attendance to their classes and the strategies that they put in place to ensure successful classes.

Interviews with instructors revealed that older adults' attitudes were key to engaging and maintaining them in exercise classes. Even when extrinsic factors (cost, venue) were discussed, they had a direct influence on older adults' attitudes and beliefs. Instructors indicated that the main challenge was not motivating existing participants, but engaging new ones. They discussed solutions to the barriers that older adults faced in attending a class and the strategies they employed to engage older adults and then keep them in their classes.

Existing literature, often based on TPB, provides evidence of the importance of older adults' attitudes in forming intention to attend a class and in adherence to a class (Lucidi et al., 2006; Yardley et al., 2008, 2007). Although the instructors did not explicitly base solutions on the TPB, it is a useful theory for understanding the results. The predominant TPB construct which helps us understand our findings is social influences, although these factors were also related to outcomes and PBC. Instructors discussed actively using methods to encourage positive social influences (personal touch, use of peers, using the influence of family and health professionals). Some older instructors reported they were able to provide a good role model and additional reassurance because of their age (increasing PBC). However, there were no obvious differences in perspectives between younger and older instructors; younger instructors could be equally as successful. All instructors reportedly had a close and

caring relationship with their participants and this was perceived as important. Instructors said that engagement of health professionals, families and peers could support older adults' uptake and attendance at classes, but they could also be a hindrance if support was not provided or if professionals, family or peers expressed negative attitudes to older people. Social support has been cited as important by older adults in previous studies (Fox, Stathi, Mckenna, & Davis, 2007; Horne et al., 2010) and social influences have been found to have an important impact on older adults' intention to participate (Wilcox & King, 2005; Yardley et al., 2007).

Instructors said that health professionals could prove to be both a barrier and motivator to exercise. This finding is supported by studies with older adults that indicate that they will often attend a class or increase their level of activity if a health professional asks them to (Dickinson et al., 2011; Horne et al., 2010; Taylor, 2014). Empathy from health professionals and advice on appropriate exercise has been found to support older adults to become more active (Horne et al., 2010, Stathi, McKenna, & Fox, 2004). However, studies have also found that health professionals can feel uncertain and unconfident in recommending exercise to older adults (Graham, Dugdill, & Cable, 2005; King, 2001). We found that instructors said that they were successful in engaging older adults in classes if they actively engaged with health professionals or were part of a specific referral system. This was often the case if they delivered a condition specific class such as a PSI, Otago or BACPR class.

The main barrier in delivery in long-term care facilities appeared to be the staff who work there and their lack of support. Instructors were unable to identify solutions to this barrier and this requires future exploration. Research with older adults in long-term care facilities suggests that health care assistants/nurses have a key role in encouraging physical activity (Chen, 2010).

Instructors said that peers were ultimately the most important promoter of classes and the main way of recruiting new participants to classes. This could include 'modelling behaviour', where peers provided a positive role model. In referral only (condition specific) classes this was not as prominent, but could still be a factor in older adults' motivation to attend. The use of peer mentors and referral schemes have had some success (Castro, Pruitt, Buman, & King, 2011; Dorgo, King, Bader, & Limon, 2011; Laventure, Dinan, & Skelton, 2008) and are becoming increasingly supported by trials (Bauman et al. 2011). The literature suggests that peer mentors can support perceptions of competence and promote the social benefits of classes. Our data suggest that the promotion of classes by existing class members has the potential to strengthen PBC and emphasise social opportunities, this should be promoted more widely and utilised by instructors.

Instructors said that once class participants had attended the class for a while they were drawn-in by both social outcomes (meeting new people/attending events) and the additional physical/psychological improvements (outcomes) that they achieved. It is interesting to reflect that carrying out home exercise has been found to relate to a desire to maintain independence, with social support helping to support motivation (Hawley, 2009). However, our results suggest that adherence to groups is primarily about social outcomes with additional physical and functional outcomes as a secondary reason, even within specific condition related exercise classes. Instructors said that participants saw the class as more than "just a class". Instructors facilitated the development of social networks through the planning of additional events, as participants appreciated being "part of something bigger". This finding is supported by previous work looking at group cohesion (Hawley-Hague et al., 2014; Loughead & Carron, 2004) in which increased group cohesion is related to increased attendance and adherence to classes. Participants also built a direct relationship with the instructors, often viewing them as friends. Perhaps this is why, in our previous study

(Hawley et al., 2012), instructors delivering in health settings, or from clinical backgrounds, had more negative attitudes around older adults' outcomes. They were less able to see or facilitate deeper connections and wider social benefits due to constraints of their role or constraints of time with participants. Instructors said that the loss of specific peer support could lead to loss of confidence and self-efficacy, leading to drop-out from the class. Previous studies suggest that group cohesion could be a barrier as well as a motivator to some older adults, with new participants finding an already-established exercise group intimidating (Costello, Kafchinski, Vrazel, & Sullivan, 2011). Therefore, the instructor must ensure facilitation of strong group cohesion, ensuring that it encompasses all participants. They need to make new participants feel welcome and facilitate them to become members of the group rapidly. This seems to be critical in maintaining participant confidence, self-efficacy and therefore adherence.

The TPB construct outcome expectations also help us to understand our findings. 'Unrealistic expectations of participants' were mentioned when older adults started a new class and were more of an issue for instructors that ran general classes, than those that ran disease specific groups. This needs to be explored further with older adults attending both types of classes as it is likely that the role of health professionals in promoting uptake of condition specific classes helps to prevent unrealistic expectations. Existing literature emphasises the importance of achieving outcomes in relation to older adults' adherence to classes (Hedley et al., 2010). Instructors in our study actively promoted feelings of achievement by acknowledgement of the outcomes each participant had gained and the sharing of these within the class. They achieved this through goal setting (this was reported as more formal within condition related classes) and then through person-centred delivery based on these goals. In Stathi et al's. (2010) study, person-centred delivery was reportedly an important factor related to adherence. Emphasising positive outcomes is also important in

giving successful motivational messages to engage people in exercise (Brawley & Latimer, 2007). We found that instructors had key skills that enabled them to emphasise outcomes and facilitate a supportive environment, which promoted positive attitudes. It is possible that these skills could be enhanced through motivational training. Our previous research found that those instructors who had undergone motivation training had participants with higher attendance levels (Hawley-Hague et al., 2014).

The PBC construct facilitates understanding of the role descriptive language plays in promoting classes. Instructors suggested that the class must be aligned with older adults' sense of identity to be successful in recruiting and maintaining them in classes. Older adults have been found to hold perceptions that exercise is harmful (Franco et al. 2015). The instructors' solution was to use words such as 'movement' and 'functional' rather than 'exercise' as it reinforces older adults' beliefs the class is achievable and appropriate for them. Issues of identity have been explored in relation to falls interventions and strength and balance classes (Horne, Speed, Skelton, & Todd, 2009; Yardley et al., 2007). There are already recommendations around how strength and balance classes should be promoted, not as an intervention to prevent falls but as an opportunity for healthy active ageing (Help the Aged, 2005). There is also general advice for promoting physical activity to all populations (Brawley & Latimer, 2007), targeting messages to the individual, with a focus on positive outcomes. However, there is little on instructors' experiences and perspectives about what they have found works in practice to motivate older adults.

Key extrinsic factors external to the application of the constructs of the TPB, such as cost and the venue for the class, clearly still influenced potential participants' attitudes, particularly PBC. Instructors reported that leisure centres and gyms were often associated with vigorous exercise and perceived as intimidating environments by older people. A preference has been shown for more local community venues, both as a more welcoming

venue and to reduce cost and travel time (Hawley, 2009; Wilcox & King, 2005). In previous research, participants' poor health has played a role in lack of adherence to exercise classes (Hedley et al., 2010; Phillips et al., 2010). In our previous study we found that health conditions were not related to older adults' attendance or adherence to classes (Hawley-Hague et al, 2014). Although, it was mentioned by instructors as a reason for temporary drop-out, instructors discussed how their participants would always try and return to the class after ill-health. It was the ill-health of loved ones and the resulting caring role that was adopted that proved to be the stronger barrier to adherence.

Finally, we consider whether instructors' perceptions were influenced by their training or characteristics. Differences in barriers perceived by instructors as important for uptake and adherence appeared to relate to the type of class that was delivered (whether it was a general community-based class or a rehabilitation class/condition specific class), rather than individual instructor characteristics. For example, instructors who delivered condition specific classes did not report 'cost' as a barrier for older people, most likely because these classes were often funded through the health service and free to older adults. Instructors seemed to adopt a similar role across all the different types of classes, although those delivering in a non-clinical setting did seem to be able to provide more external support (outside of the class) for their participants.

Limitations

There were several limitations to this qualitative study. It is likely that all of the instructors who engaged in the interviews were keen and enthusiastic, whilst instructors with more negative (Hawley et al., 2012) attitudes were not recruited. This could have introduced bias and there is risk that only positive experiences were shared. However, instructors who were recruited discussed their experiences of both very successful and unsuccessful classes.

Although we purposively sampled instructors with the intention to gather data from a wide range of different backgrounds, training, gender, age and experience, not all training qualifications are represented. However, a wide range of variation in the sample is accounted for and saturation was reached, with no new themes emerging.

The generalisability of these qualitative findings to different ethnic groups may be limited since instructors were all White Caucasian, and reported having pre-dominantly White Caucasian exercise class members. In the U.K, instructors are expected to receive formal training and maintain continued professional development (see Hawley et al, 2012). These factors, along with the NHS healthcare system funding, could lead to instructors experiencing different barriers and identifying different solutions to instructors delivering in other countries. Relationships with health professionals also may vary from countries with different types of health care system. However, generally there has been remarkable continuity in findings of previous research examining older adults' perspectives across different countries (Yardley et al., 2006).

Finally, the interviewer had previously met some of the instructors within her previous work role. This may have influenced the response both from the instructor and the interviewer. Conversely, this could have put instructors at ease and assisted the interview process. The interviewer did not discuss her work role before or during the interviews to try to mediate this effect and a second researcher checked the coding and analysis of the data to ensure the instructors' previous contact with the instructors did not influence interpretation of the data. Reflective practice was carried out throughout the research study, including regular discussion with the research team before and after interviews and during analysis.

Recommendations

Instructors discussed a number of solutions to the barriers older adults faced when starting or continuing to attend an exercise class. Some direct recommendations for increasing uptake and adherence to classes can be made based on their experiences.

To increase **social influence** and support:

- The instructor should make direct contact with potential participants, either through face to face contact or over the phone (also strengthening **PBC**).
- Peers, families and health professionals should be engaged by the instructors to help promote the classes and also to provide feedback which can assist motivation in the long-term (also strengthening **PBC**).

To enable older adults to have positive **outcome expectations** instructors are advised to:

- Focus on goal-setting (informally or formally) and person-centred delivery to achieve these goals. Motivational training can assist with this
- Show compassion and care, becoming 'one of the group'. They should keep in contact with participants outside of class and introduce additional promotional and social opportunities so that participants **social outcome expectations** are met (also providing **social influence**).

To support older adults' **PBC** instructors should:

- Offer free sample sessions where possible so that older people can try the class, this can be offered at previous rehabilitation programmes, at events, or by invitation to current classes.
- Use terms such as 'movement', rather than 'exercise' to increase PBC, when promoting their general community classes to older adults.

- Refer to strength and balance classes or functional movement classes when promoting falls prevention classes.

Conclusion

In summary, it is clear that there are a range of factors which influence attitudes and combine to lead to either uptake (or not) and class participant drop-out, or long-term adherence. The instructor plays an important, but not isolated, role in this. Although, evidence from other studies of the attitudes of older adults suggest some similar findings (Hedley et al., 2010; Stathi et al., 2010), this study provides an insight into the strategies instructors adopt to recruit and maintain older adults in their classes. Further research is required with instructors to build the evidence in this area, particularly exploring the different solutions used by instructors working in different settings and with different functional and health levels of older adults. This study provides context to previous quantitative research, which considers how instructors' can influence participants' attendance and adherence (Hawley-Hague et al., 2014) to classes.

References

Ajzen, I. (1988). *Attitudes, personality and behaviour*. Maidenhead, UK: Open University Press.

Ajzen, I., & Driver, B.L. (1992). Application of the Theory of Planned Behaviour to leisure choice. *Journal of Leisure Research*, 24, 204-24.

Bauman, M.P., Giacobbi, P.R. Jr., Dzierzewski, J.M., Aiken Morgan, A., McCrae, C.S., Roberts, B.L., & Marsiske, M. (2011). Peer volunteers improve long-term maintenance of physical activity with older adults: a randomized controlled trial, *Journal of Physical Activity and Health*. 2:S257-66.

Baker, M.K., Atlantis E., & Fiatarone Singh, M.A. (2007). Multi-modal exercise programs for older adults. *Age Ageing*, 36, 375-381. doi: 10.1093/ageing/afm054

Brawley, LR., Latimer, A.E. (2007). Physical activity guides for Canadians: messaging strategies, realistic expectations for change, and evaluation. In *Advancing physical activity measurement and guidelines in Canada: a scientific review and evidence-based foundation for the future of Canadian physical activity guidelines.* Applied Physiology, Nutrition, and Metabolism and the Canadian Journal of Public Health, 32 (Suppl. 2E).

Carlson, S.A., Fulton, J.E., Schoenborn, C.A., & Loustalot, F. (2010). Trend and prevalence estimates based on the 2008 physical activity guidelines for Americans. *American Journal of Preventative Medicine*, 39, 305-313. doi: 10.1016/j.amepre.2010.06.006

Castro, C.M., Pruitt, L.A. Buman, M.P, & King, A.C. (2011). Physical activity programme delivery by professionals versus volunteers. The TEAM randomized trial. *Health Psychology*, 30, 285-294. doi: 10.1037%2Fa0021980

Centers for Disease Control and Prevention. (2010). Web–based injury statistics query and reporting system (WISQARS) [online]. Accessed 11.30. 2010.

Costello, E., Kafchinski, M., Vrazel, J., & Sullivan, P. (2011). Motivators, barriers, and beliefs regarding physical activity in an older adult population, *Journal of Geriatric Physical Therapy*. 34,138-47. doi: 10.1519/JPT.0b013e31820e0e71

Chen, Y.M. (2010). Perceived barriers to physical activity among older adults residing in long-term care institutions. *Journal of Clinical Nursing*, 19, 432–439. doi: 10.1111/j.1365-2702.2009.02990.x

Dean, R.N., Farrell, J.M., Kelley, M.L., Taylor M.J., & Rhodes, R.E. (2007). Testing the efficacy of the theory of planned behavior to explain strength training in older adults, *Journal of Aging and Physical Activity*, 15, 1-12.

Dickinson, A., Horton, K., Machen, I., Bunn, F., Cove, J., Deepak, J., & Maddex, T. (2011). The role of health professionals in promoting the uptake of fall prevention interventions: a qualitative study of older people's views. *Age Ageing*, 40, 724-730. doi: 10.1093/ageing/afr111

Dorgo, S., King G.A., Bader, J.O., & Limon, J.S. (2011). Comparing the effectiveness of peer mentoring and student mentoring in a 35-week fitness program for older adults. *Archives of Gerontology and Geriatrics*, 52, 344-9. doi:10.1016/j.archger.2010.04.007

Estabrooks, P.A., Munroe, K.J., Fox, E.H., Gyurcsik, N.C., Hill, J.L., Lyon, R., Rosenkranz, S., & Shannon, V.R .(2004). Leadership in physical activity groups for older adults: A qualitative analysis. *Journal of Aging and Physical Activity*, 12, 232-45.

Fox, K.R., Stathi, A., Mckenna, J., & Davis, M.G. (2007). Physical activity and mental well-being in older people participating in the Better Ageing Project. *European Journal of Applied Physiology,* 100, 591-602. doi: 10.1007/s00421-007-0392-0

Franco, M.R., Tong, A., Howard, K., Sherrington, C., Ferreira, P.H., Pinto, R.Z., & Ferraira, M.L. (2015). Older people's perspectives on participation in physical activity: a systematic review and thematic synthesis of qualitative literature. *British Journal of Sports Medicine*; 0:1–9. doi:10.1136/bjsports-2014-094015.

Gillespie, L.D., Robertson, M.C., Gillespie, W.J., Sherrington, C., Gates, S., Clemson, L.M., & Lamb, S.E. (2012). Interventions for preventing falls in older people living in the community. *Cochrane Database of Systematic Reviews,* Issue 9. Art. No.: CD007146. doi: 10.1002/14651858.CD007146.pub3.

Graham, R.C., Dugdill, L., & Cable, N.T. (2005). Health professionals' perspectives in exercise referral: implications for the referral process. *Ergonomics*, 48, 11-14, 1411-1422. doi:10.1080/00140130500101064

Hawley-Hague, H., Horne, M., Campbell, M., Demack, S., Skelton, D.A., & Todd, C. (2014). Multiple levels of influence on older adults' attendance and adherence to community exercise classes. *The Gerontologist*, 54, 599-610. doi: 10.1093/geront/gnt075

Hawley, H., Skelton, D.A., Campbell, M., & Todd, C. (2012). Are attitudes of exercise instructors who work with older adults influenced by their training and personal characteristics? *Journal of Aging and Physical Activity*, 20, 47-63.

Hawley, H. (2009). Older Adults' Perspectives on home exercise after falls rehabilitation - an Exploratory Study. *Health Education Journal*, 68, 207-18. doi:10.1177/0017896909339533

Hays, L.M., Pressler S.J., Damsuh, T.M., Rawl, S.M., & Clark, D.O. (2010). Exercise adoption among older, low-income women at risk for cardiovascular disease. *Public Health Nursing*, 27, 79-88. doi: 10.1111/j.1525-1446.2009.00829.x.

Hedley L., Suckley N., Robinson L., & Dawson P. (2010) Staying Steady: A community-based exercise initiative for falls prevention. *Physiotherapy Theory and Practice*, 26, 425-38. doi: 10.3109/09593980903585059

Help the Aged. (2005). Don't mention the F word encouraging positive attitudes to falls prevention in later life. London. Help the Aged.

Horne, M., Skelton, D., Speed, S., & Todd, C. (2010). The influence of primary care health professionals in encouraging exercise and physical activity uptake amongst White and

South Asian older adults: Experiences of young older adults. *Patient Education and Counselling*, 78, 97-103. doi: 10.1016/j.pec.2009.04.004

Horne, M., Speed, S., Skelton, D., & Todd, C. (2009). What do community-dwelling Caucasian and South Asian 60-70 year olds think about exercise for fall prevention? *Age Ageing*, 38, 68-73. doi: 10.1093/ageing/afn237

Jancey, J., Lee, A., Howat, P., Clarke, A., Wang, K., & Shilton, T. (2007). Reducing attrition in physical activity programs for older adults. *Journal of Aging and Physical Activity*, 15, 152-65.

King, A.C. (2001). Interventions to promote physical activity by older adults. *Journals of Gerontology: Series A.*56, 36-46. doi: 10.1093/gerona/56.suppl_2.36

Laventure, R.M.E., Dinan, S.M., & Skelton, D.A. (2008). Someone like me: increasing participation in physical activity among seniors with senior peer health motivators. *Journal of Aging and Physical Activity*, 16, S76-7.

Loughead, T.M., & Carron, A.V. (2004). The mediating role of cohesion in the leader behaviour-satisfaction relationship. *Psychology of Sport and Exercise*, 5, 355-71. doi: 10.1016/S1469-0292(03)00033-5

Lucidi, F., Grano, C., Barbaranelli, C., & Violani, C. (2006). Social-cognitive determinants of physical activity attendance in older adults. *Journal of Aging and Physical Activity*, 14**,** 344-59.

Neergaard, M.A., Olesen, F., Anderson, R.S. & Sondergaard, J. (2009). Qualitative Description-the poor cousin of health research? *BMC Medical Research Methodology*, 9, 52. doi:10.1186/1471-2288-9-52

NVivo qualitative data analysis software. (2008). QSR International Pty Ltd. Version 8.

Nyman, S.R. & Victor, C.R (2011). Older people's participation in and engagement with falls prevention interventions in community settings: an augment to the Cochrane systematic review. Age Ageing, 41, 16-23. doi: 10.1093/ageing/afr103.

Oka, R.K, King, A.C, & Young, D.R. (1995). Sources of social support as predictors of exercise adherence in women and men ages 50 to 65 years. *Women's Health*, 1, 161–175.

Patton, M.Q. (2002). Qualitative research and evaluation methods (3rd ed.). Thousand Oaks, CA: Sage Publications.

Phillips, E.M., Katula, J., Miller., Walkup, M.P., Brach, J.S., King, A.C., Rejeski, W.J., Church, T., & Fielding, R.A. (2010). Interruption of physical activity because of illness in the lifestyle interventions and independence for elders pilot trial. *Journal of Aging & Physical Activity*, 18, 61-74.

Prochaska, J.O., & DiClementi, C.C. (1983) Stages and process of self change of smoking: toward an integrative model of change. *Journal of Consulting and Clinical Psychology*, 51, 390–395. doi.org/10.1037/0022-006X.51.3.390

Rhodes, R., Martin, A., Taunton, J., Rhodes, E., Donnelly, M., & Elliot, J. (1999). Factors associated with exercise adherence among older adults: an individual perspective. *Sports Medicine*, 28, 397-411. doi: 10.2165/00007256-199928060-00003

Stathi, A., Mckenna, J., & Fox, K.R. (2010). Processes Associated with Participation and Adherence to a 12-month Exercise Program for Adults Aged 70 and Older. *Journal of Health Psychology*, 1-10. doi: 10.1177/1359105309357090

Stathi, A., McKenna, J., & Fox, K.R. (2004). The experiences of older people participating in exercise referral schemes. *The Journal of the Royal Society for the Promotion of Health*, 124 , 18-23. doi: 10.1177/146642400312400108

Stigglebout, M., Hopman-Rock, M., Crone, M., Lecher, L., & Van Mechelen, W. (2006). Predicting older adults' maintenance in exercise participation using an integrated social psychological model. *Health Education Research*, 21, 1-14. doi: 10.1093/her/cyh037

Taylor, D. (2014) Physical activity is medicine for older adults. *Postgraduate Medical Journal*, 90, 26-32. doi:10.1136/postgradmedj-2012-131366

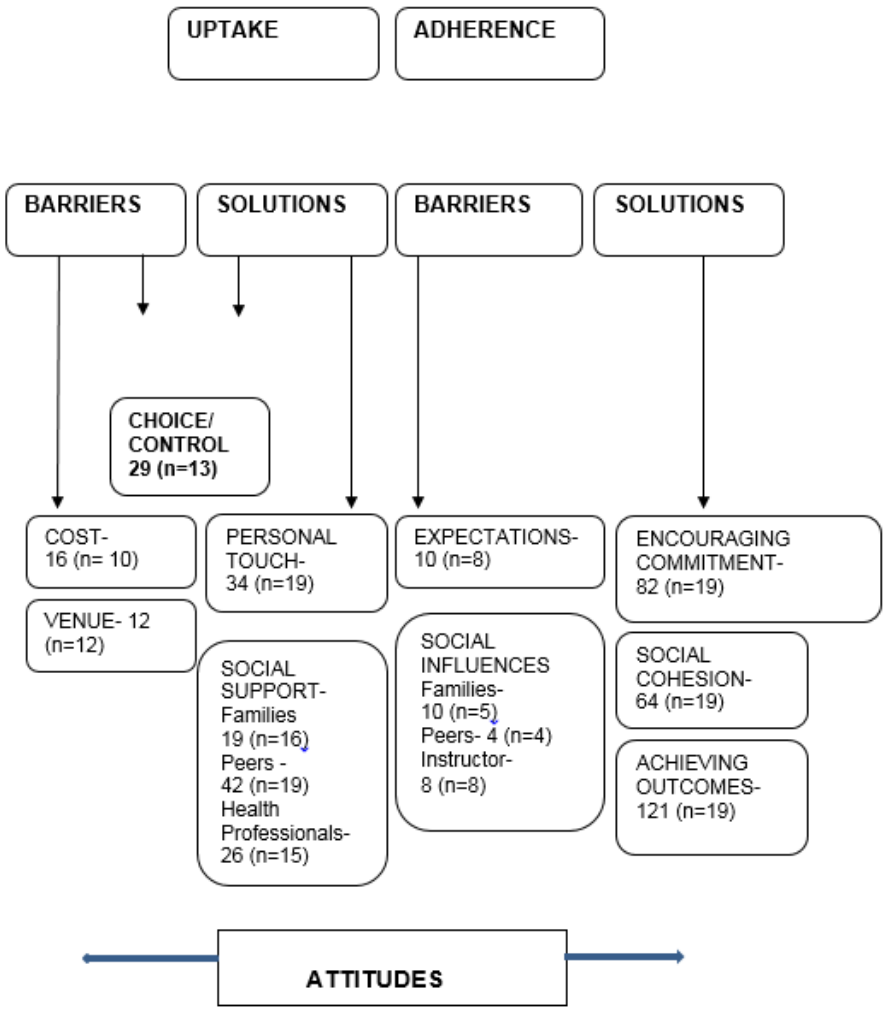
Wilcox, S., & King, A.C. (2005). Goal Setting and Behavioural Management. In J.C, Jones., & D.J, Rose (Eds.), *Physical activity instruction of older adults* (pp. 112-26). Champaign: Human Kinetics.

Yardley, L., Bishop, F.L., Beyer, N., Hauer. K., Kempen, G.I.J.M., Piot-Ziegler, C., Todd, C., Cuttelod, T., Horne, M., Rosell, A. (2006) Older people's views of falls prevention interventions in Six European countries. *The Gerontologist*, 46, 650-660. doi: 10.1093/geront/46.5.650

Yardley, L., Donovan-Hall, M., Francis, C., & Todd, C. (2007). Attitudes and beliefs that predict older people's intention to undertake strength and balance training. *Journal of Gerontology: Psychological Sciences*, 2, 199-225. doi: 10.1093/geronb/62.2.P119

Yardley, L., Kirby, S., Ben-Shlomo, Y., Gilbert R., Whitehead, S., & Todd, C. (2008). How likely are older people to take up different falls prevention activities? *Preventive Medicine*, 47, 554-58. doi: 10.1016/j.ypmed.2008.09.001

Figure 1: Themes



Note. Number stated is the number of times the theme occurred followed by the number of instructors in brackets.

"Older Adults' Uptake and Adherence to Exercise Classes: Instructors' Perspectives"
by Hawley-Hague H. Horne M, Skelton DA, Todd C
Journal of Aging and Physical Activity

Table 1: Interview schedule.

1. Can you tell me about how you approach your classes?
- *Talk me through what happens at a class/each of your classes if they differ.*
2. If you deliver more than one class, what are the differences between them?
3. How do you promote your classes and encourage participants to attend?
4. What do you think motivates participants to attend?
5. What do you think motivates participants to stay in the class long-term?
6. What do you think is the impact of the class for your participants?
7. How important do you think the class is to your participants and why?
8. Do you think others (families, friends, and professionals) influence your participant's attendance?
9. What do you think the barriers are to participants attending your classes?

"Older Adults' Uptake and Adherence to Exercise Classes: Instructors' Perspectives"
by Hawley-Hague H. Horne M, Skelton DA, Todd C
Journal of Aging and Physical Activity

Table 2: Explanations of training qualifications.

Qualifications	**Description**
EXTEND	Provides gentle movement to music for older people and for anyone of any age with a disability.
YMCA/ YFIT	Can specialise in exercise to music, chair based exercise, weights or circuit training suitable for older adults.
KFA	Non-competitive exercise, movement and dance based sessions. Aimed to enhance daily life and to maintain a good level of posture, mobility, and co-ordination. Ideal for the active retired.
Laban	See KFA. KFA based on Laban principles. No other information available.
Medau	Working with a variety of music and rhythms, Medau movement encourages the body to move with energy, strength, stamina, suppleness and co-ordination. Focusing on correct posture and body alignment, Medau movement has a natural, flowing quality, whilst at the same time being dynamic, lifting the spirits and increasing confidence.
Later Life Training, Otago Exercise Programme	Provides evidence based home exercise and small group

Qualifications	**Description**
Leader	exercise options based on strength and balance exercises to prevent falls, injuries and improve cognition amongst older people.
Later Life Training, Postural Stability Instructor (PSI)	Provides a range of professionals the skills to deliver effective and fun exercise opportunities, which includes strength and balance exercises for older people with a fear or history of falls.
BACPR Specialist Exercise Instructor Level 4 Cardiac Qualification **(**BACPR)	Enables the instructor to safely prescribe and deliver an exercise programme for individuals with cardiovascular disease.

Table 3: Training and background of instructors N=19.

Qualifications	
EXTEND (REPS level 3)	8 (42%)
YMCA/ YFIT	6 (31.6%)
(REPS L3 Older Adult)	
Laban (REPS L3)	1 (5.3%)
KFA (REPS L3)	4 (21%)
Medau (REPS L3)	1 (5.3%)
Later Life Training	1 (5.3%)
Otago Exercise Programme Leader	
(REPS L3 CPD)	
Later Life Training	7 (36.8%)
(LLT- REPS L4 PSI)	
BACPR	2 (10.5%)
Background	
Education	1 (5.3%)
Fitness or sports background	6 (31.6%)
Army	2 (10.5%)
Falls prevention: non-clinical	2 (10.5%)
Falls prevention team: Physiotherapist	3 (15.8%)
Voluntary and community	4 (21%)
Mental health occupational therapy	1 (5.3%)