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Evaluating participants' perceptions of a functional physical fitness assessment for those aged 60 years and over conducted in the community by student physiotherapists

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Functional Physical Fitness MOTs for the over 60s: An Exploratory Study to Evaluate Student Physiotherapists Assessing Volunteer Participants in Non-Healthcare Settings

Abstract

Background

Physical fitness is crucial in preserving independence and quality of life (QOL) for older adults. A functional physical fitness MOT (FFMOT) has been designed specifically to test the fitness of the over 60s.

Aim

This study aimed to explore older people's perceptions of FFMOTs, conducted by student physiotherapists, and the feasibility of a larger study to evaluate the long-term effects of FFMOTs.

Methods

Five scheduled drop-in sessions were arranged. Participants ≥ 60 years were recruited.

Physiotherapy students conducted the FFMOTs. Participants completed evaluation, physical activity status and QOL questionnaires. Focus groups were conducted to explore participant's perceptions and experiences. Data was analysed using descriptive statistics and thematic analysis.

Results

Ninety-one adults (aged 60-93 years) participated, 75 (46 (61%)female and 10 (13%) male) completed questionnaires, and seven attended focus groups. 100% of participants suggested that all >60s would benefit from FFMOTs, 79% perceived they would increase their activity following their FFMOT. Focus group participants suggested that regular FFMOTs would provide a “yardstick” for their level of fitness and they would like to repeat their tests next year and “they were mentally a positive thing”. Additionally they reported they “enjoyed” working with students.

Conclusion

The FFMOT was perceived as useful and encouraged older adults to increase their activity levels. Students successfully completed the tests in non-healthcare settings. This study suggests that a large trial designed to assess the benefit of regular FFMOT testing for the over 60s in community settings is indicated.

Key Words: Older Adults, Physical Fitness, Physical Function, Physical Activity, Student Physiotherapists.

Key Points:

- 1. Functional Fitness MOTs (FFMOTs) for the over 60s can be conducted successfully in community settings by student physiotherapists.**
- 2. Over 60s who participated in these FFMOTs thought that the results of their tests would provide a yardstick by which to measure their physical fitness over time.**

3. The results of this study indicate that participants who undertook the FFMOT enjoyed the experience and perceived that it would encourage them to increase their physical activity levels.
4. Participants in this study suggested that all over 60s should have regular physical fitness screening tests in order to help them maintain their level of physical fitness.
5. A longitudinal study is indicated to ascertain whether regular physical fitness screening tests for older adults can improve and maintain their physical fitness over time.

Reflective Questions:

1. How did the participants, in this study perceive the benefit of the FFMOTs?
2. Do you think that FFMOTs could be used to encourage the less physically motivated older adults to improve their physical fitness?
3. How could the “social interaction” of the FFMOTs be used to motivate over 60s to increase their physical fitness?

Introduction: Lack of physical activity is a significant health risk (WHO 2011) and in the UK the British Heart Foundation (BHF) reports that “44% of adults never do any moderate physical activity” (Townsend *et al* 2015). Despite this, maintaining physical fitness is a key element of reducing the impact of frailty, falls and loss of independence for older adults (BGS 2014, McPhee *et al* 2016). Maintaining levels of physical fitness not only has the

potential to improve quality of life (QOL) but also reduce the burden on over stretched healthcare resources. Although exercise has been described as “Medicine for older people” (Taylor 2014), and regular physical activity is recommended for the older adult by both Public Health England (Public Health England 2014) and the Chief Medical Officer (DOH 2019), adherence to exercise for older adults can be challenging for a multitude of reasons (Hawley Hague et al 2016). It is recommended that all older adults are active daily, minimise the length of time they spend in sedentary activities, participate in at least 150 minutes of moderate intensity aerobic activity over a week, include strengthening activities, balance and co-ordination exercises (specifically for those at risk of falling) on two or more days a week (DOH 2019). Those achieving the recommended levels for physical activity reduce significantly with age (NHS Digital 2016) and are not achieved by 77% of men and 85% of women over 50 years of age (Strain et al 2016, Zubala *et al* 2017). Therefore, methods of improving engagement in regular physical activity for the older adult are required.

To improve and promote engagement it could be useful for older adults to have a baseline by which to gauge their current level of fitness. A raft of functional fitness tests (FFMOTs¹), have been validated to test the older adult (de Jong *et al* 2018) but tested with a group of participants who were already engaged with healthcare services. Discussions following the physical tests are aimed, using the COM-B (Michie et al 2011) theory, to address behaviour change towards exercise and thus improve knowledge on the value of physical activity.

Acknowledging that FFMOTs (de Jong *et al* 2018) can be conducted by trained non-healthcare professionals, (Later Life Training 2019) the increasing focus on physical exercise as part of the overall public health agenda (DOH 2019) has increased the need for physiotherapists, in general, to be aware of the need for emphasis on maintaining and

¹ MOT is a common term used in the UK to describe a regular screening of health.

encouraging physical fitness especially for the older adult (Taylor 2014). However this also increases the need for public health issues to be embedded in academic physiotherapy programs (O'Donoghue et al 2011). In 2016 a small local project involving volunteer second year physiotherapy students, who were studying on an Active Aging module, to undertake FFMOTs in various locations in a small UK market town. Feedback from the participants and student routine module feedback indicated that both the participants and the students benefited from the experience. However this project had not previously been formally evaluated either for the participants or the students involved. Therefore this study aimed to explore both the perceived value and feasibility of older adults (≥ 60 years) undertaking FFMOTs, assessed by trained student physiotherapists, in a community setting and the educational impact for the students. In meeting this aim, the study design also lends itself to:

1. Presenting initial data regarding activity levels and health status of this group of older adults.
2. Assessing the feasibility and educational experience of training (second year) physiotherapy students to test a population of over 60s, in a community setting.
3. Provide baseline data to support a larger UK wide study on the effectiveness of using functional fitness screening tests to maintain physical fitness in older adults.

Method

This two part exploratory study employed a mixed methods design (See Figure 1) involving two main parts, part one being predominantly descriptive data involving questionnaires and part two, focus group follow-ups to explore participant's perceptions of their experience. A further study was conducted with the students aiming to explore, if any, the educational benefit of including the FFMOTs in their Active Aging module (University of Plymouth 2019).

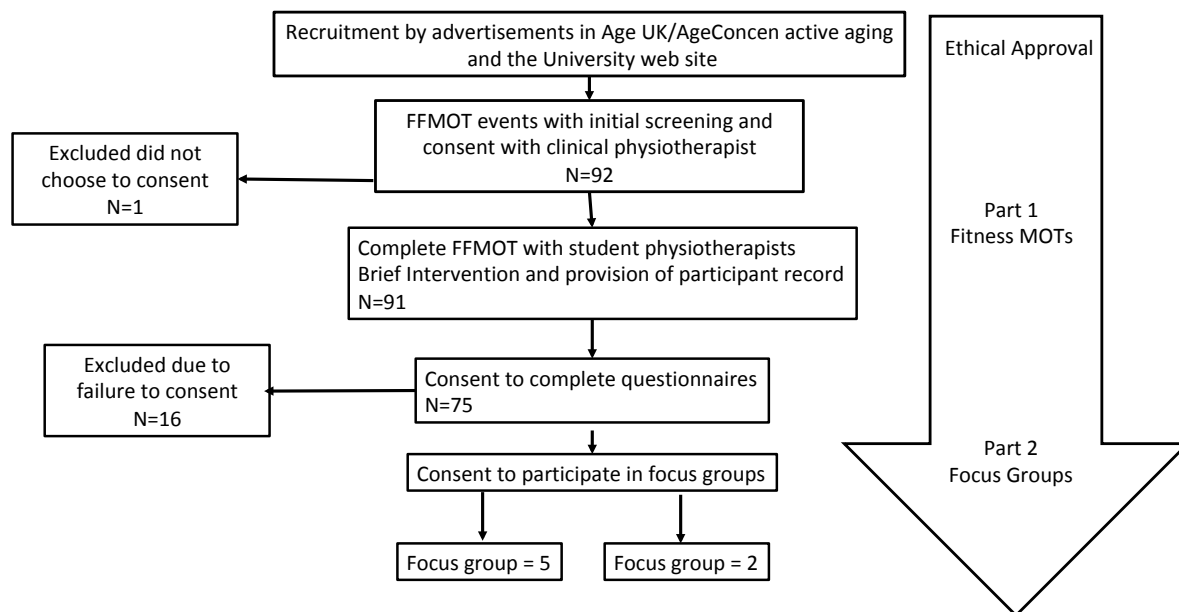


Figure 1: Study Flow Diagram

Ethical approval was gained from Plymouth University Research Ethics Committee (16/17-754). The venues used for the FFMOTs were local AgeUK and AgeConcern centres and were specifically chosen as they were not healthcare centres but enabled ease of access for the older adult. Recruitment adverts were placed in the three AgeUK and AgeConcern centres in city, suburban and rural market town locations where the FFMOTs would take place. In addition, information about the study was posted on a University-hosted web site. Participants over the age of 60 were invited to attend one of five FFMOT, sessions which had been arranged in the three venues.

Part 1: The functional fitness MOT (FFMOT)

Potential participants who attended were invited to complete an initial verbal fitness screen with a qualified physiotherapist. Once their suitability to participate was established and signed, informed consent to participate in the FFMOT was provided, they then undertook the tests which included, 30 second chair stand, chair sit and reach, back scratch, eight foot up and go, hand grip strength, single leg stance and a six minute walk (de Jong *et al* 2018). The tests were conducted by second year University of Plymouth student physiotherapists and supervised by qualified physiotherapists.

Following the previous year's small project the ability to undertake the FFMOTs was included formally, for the first time in 2017, as an integral part of the student's learning in the Active Aging module (University of Plymouth 2019). Training comprised of theoretical learning on the use of the FFMOT outcome measures, a two hour practical session supervised by two lecturers where they demonstrated their knowledge on the tests, explored the safety issues required for setting up the venues in the community, refreshed their knowledge of the COM-B model of behaviour change (Michie *et al* 2011) and practiced this in relation to physical activities for the older adult. Local physical activity information was also provided to enable the students to direct the participants to local facilities and opportunities for physical activity. **Students participated voluntarily in the delivery of the FFMOTs and although the students were supervised they were not formally assessed on their performance.**

Following FFMOT assessment, physical activity interventions were encouraged using the COM-B model. Where specific exercise was indicated (e.g. balance or quadriceps strengthening) the students used appropriate exercises from the NHS Choices exercise for older people (NHS Choices 2018). Additionally, participants were signposted to appropriate

local exercise facilities and physical exercise/activity groups. All participants were provided with a hard copy of their FFMOT results and their intervention suggestions. Following completion of the FFMOT and advice (if required) on exercises and local opportunities to engage in physical exercise, they were invited to take part in the study.

Immediately following participation in the FFMOTs participants were invited to read an information sheet explaining the study and those who wished to take part in the study provided written consent to participate. Following consent they completed three questionnaires, including:

1. An evaluation of the FFMOT experience (see table 3) and including open questions;-
 - a. How much would you be prepared to pay?
 - b. What part did you enjoy most?
 - c. Is there any way we could improve the testing?
 - d. Are there any ways we could improve the testing process?
 - e. Are there any other suggestions you would like to make?
2. A brief evaluation of pre-existing exercise activity, utilising the Incidental and Planned Exercise Questionnaire (IPEQ) (Delabaere *et al* 2010, Tomioka *et al* 2011).
3. An evaluation of current self-reported health state using the EQ5D 5L (Szende *et al* 2014).

For the purposes of this study academic module feedback, using the university module feedback forms completed at the end of each module, data was collated to evaluate the benefit, if any, of formally including the FFMOT as part of their Active Aging Module was also included.

No participant identification was attached to the questionnaires or the student feedback therefore all data collected by this method was anonymous. Data from the questionnaires was entered into Excel for descriptive analysis.

Part 2: Exploring perceptions of the FFMOT

Following completion of the questionnaires (May-June 2017), participants were invited to consent to take part in the focus groups. Those who had expressed an interest and consented to take part in the focus groups were subsequently contacted in November 2017. Convenient dates, times and venues were arranged for the groups. Two focus groups were conducted at two of the sites where the FFMOTs had been undertaken, one in the city and one in the market town. Each group was facilitated by two researchers, one of whom had been present at all the FFMOT assessments, and recorded. For each group one of the researcher's took notes while the other led the session.

A discussion guide divided into two discrete topics was used to structure the focus groups (see Table 1) . Participants were welcomed and introduced by the researchers consent to participate was confirmed before the recording of the session began. Background information on why the participants had been invited to attend was also provided.

Topic 1: Physical Activity	Topic 2: Appeal of the Functional Fitness MOT (FFMOT)	Cooling down
<p><i>Before the FMOT were you physically active – what exercise did you take and how often?</i></p> <p><i>Did you consider yourselves fit and active?</i></p> <p><i>Did you have any surprises in the results of your test?</i></p> <p><i>Have you made any changes to your activities since your test?</i></p>	<p><i>Did you enjoy the test?</i></p> <p><i>What improvements could we make to the tests?</i></p> <p><i>Would you recommend the test to your friends?</i></p> <p><i>Do you think it would be a good idea to have regular fitness checks?</i></p> <p><i>Where would be the best place to do these tests?</i></p>	<p><i>Do you want to mention anything else that we have not covered which you feel is important to mention?</i></p>

Table 1: The focus group discussion guide.

Data were transcribed, anonymised and coded from the recordings and entered into an excel spreadsheet. Using a thematic analysis (Braun & Clarke 2013) undertaken independently by the two researchers. The original eight data themes were cross checked for validation. After further cross checking between the researchers data was condensed and the final themes emerged. Any disagreements were resolved by discussion without the need for recourse to a third researcher.

Results

Ninety one participants attended one of five sessions in local community centres for FFMOTs. Their age ranged from 60-93 years with the majority of participants being female (see Table 1) for the purposes of this study no further base line data was collected. At the

stage of screening two (2%) participants were referred back to their GP to have a health check before completing the FFMOT. Following completion of the FFMOT, 75 (82% of the participants who completed the FFMOT) consented to participate in the short term follow-up survey evaluation of part 1 of the study (see Figure 1).

Gender	Female	Male	Missing
	46 (61%)	10 (13%)	19 (25%)
Age	Range	Number	
	60-65	14 (19%)	
	65-70	15 (20%)	
	70-75	19 (25%)	
	75-80	3 (4%)	
	80-85	13 (17%)	
	85-90	7 (9%)	
	>90	4 (5%)	

Table 2: Gender and age range of participants

Physiotherapy students N=44 (88% of the second year cohort of 50 students) voluntarily signed up to one or more FFMOT testing sessions. Routine formal academic module

evaluation feedback also included positive comments from the participating students on the most enjoyable aspects of the module e.g. *“The MOT was good as it allowed us to experience working with people in the community”* and *“MOT and participating in research”*. As a result of this study, undertaking and practicing undertaking the FFMOT has become an integral part of the undergraduate Active Aging module (Plymouth University 2019).

The survey evaluation data (See Table 2) revealed that 75 (100%) participants perceived that all over 60s would benefit from undertaking an FFMOT, it met their expectations and 49 (65%) reported they would be prepared to pay for further tests. No participant reported they did not enjoy the tests and 69 (92%) enjoyed the experience, 59 (79%) perceived they would increase their activity following the FFMOT, and 63 (84%) said they would like to be

retested. The one participant who was not happy with their results stated that “*I was not aware of how little exercise I was taking it was a real eye opener*”.

Did the FFMOT meet your expectations?	Yes	No	Missing
	75(100%)	0 (>1%)	0 (>1%)
Were you aware of the guidelines for physical exercise?	Yes	No	Missing
	50(67%)	25 (35%)	0 (>1%)
Do you think that over 60s would benefit from MOTs?	Yes	No	Missing
	75(100%)	0 (>1%)	0 (>1%)
Would you be prepared to pay?	Yes	No	Missing
	49 (65%)	25 (33%)	1 (1%)
Did you enjoy it?	Yes	No	Missing
	69(92%)	0 (>1%)	6 (8%)
Were you pleased with your scores?	Yes	No	Missing
	64(85%)	3 (4%)	6 (8%)
Do you think the testing will increase the amount of activity you are doing?	Yes	No	Missing
	59 (79%)	11 (15%)	5 (7%)
Would you like to come back to be re-tested?	Yes	No	Missing
	64 (85%)	6 (8%)	5(7%)
Would you like us to contact you if we do this again?	Yes	No	Missing
	69 (92%)	1 (1%)	5 (7%)

Table 3: Table providing results of the Yes/No answer questions in the evaluation questionnaire.

All the participants 91(100%) completed the IPEQ (Delabaere *et al* 2010, Tomioka *et al* 2011) data (see Table 4), taken immediately after the FFMOT testing revealed a median, for the

group, of 31.13 hours of physical activity per week (range 2.25-84 hours) was undertaken by the participants, with a reported mean of 3.56 hours of planned sporting activity (range 0-2.38 hours).

Activity during the previous week	Mean	Standard Deviation	Minimum	Maximum
Total activity (hours)	34.82	22.52	2.25	84
Incidental activity (hours)	30.16	21.07	<1	76.75
Walking activity (hours)	8.61	6.16	<1	31.00
Planned activity (hours)	4.69	5.16	<1	25.50
Planned walking activity (hours)	3.76	4.30	<1	21.00
Planned sporting activity (hours)	0.95	2.38	<1	15.00

Table 4: Summary of IPEQ (Delabaere *et al* 2010) data

Seventy five (82%) of participants completed the EQ 5D 5L questionnaire (Szende *et al* 2014), 40 (53%) reporting no problems in any domain, there were no participants who recorded extreme problems in any domain (see Figure 2).

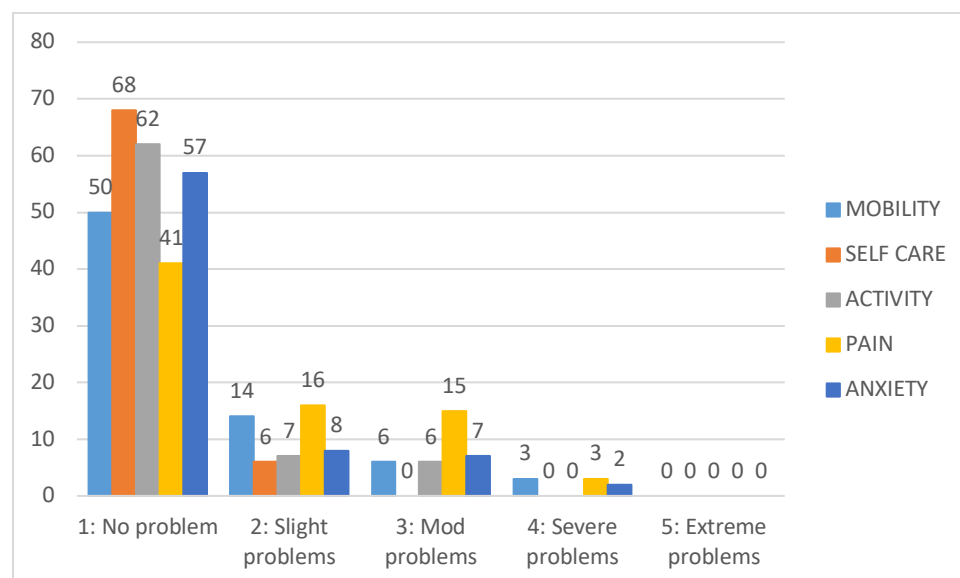


Figure 2: Frequency of reported problems according to domain and index in EQ 5D 5L scoring for FFMOT total population (n=74).

The two focus groups were held at two of the venues where the MOTs had taken place, an AgeUK centre in the city and at an AgeConcern centre in a rural market town. Overall six participants two male and six females (aged 60-75) with one female charity representative (female aged 60) attended the focus groups. Three specific themes which emerged from the focus groups were:

FFMOTs were an acceptable method of measuring and encouraging fitness

The FFMOTs were described as “*very helpful*”, “*valuable*”, “*important*” and “*enjoyed*” by the participants. Participants appreciated the feedback from the students about their level of fitness against the norm for their age. The tests were perceived as important and that all over 60s should be encouraged to participate. Participants felt that they should “*regularly touch base*” or be re-tested to provide a “*yardstick*” of their individual fitness. Some even suggested that they could have “*tried harder*” and may even prepare for future tests. Participants had also “*recommended*” the tests to their family and friends stating for example “*Very helpful wife came on my recommendation and thought so too.*” “*Have already recommended it to friends*” but also stated that “*People who didn’t do the tests last year want to come and do them if we do them again.*” and “*Talked about it for days afterwards mentally positive thing*”.

One participant had not considered the importance of balance and suggested that this test was one that could really be “*pushed*” and others confirmed “*results showed I could not balance*” “*balance test important*”, “*got to maintain balance*”, “*I’m dreadful*” and “*didn’t even consider balance. I over balance quite easily*”. The importance of grip strength was also highlighted by two other participants. The participants have shared their experiences with other people and felt that this would encourage people to come again. Interaction with the students was explored and described as “*brilliant*” and they felt it provided good “*social interaction*”.

Achieving the results with encouragement and example

Participants described how watching the achievements of other individuals not only motivated them to achieve better results but also helped them recognise how important it was to stay physically fit. Encouragement from the students was important and helped them “push” themselves and gave them a “pat on the back”. They recognised that individual tests were “not competitive” but they were “competing against themselves” and they described this as driving them to achieve good results. One individual stated “it was extremely useful to know what level I was at”. Additionally one participant suggested that “As the tests are just against yourself they are not as threatening as work fitness tests. It’s not a competitive situation. You’re not centre of attention as others doing the tests at the same time. Its non-threatening environment.”

“Physical fitness is enough”

Whether any other health screens should be included was discussed. Participants indicated that physical fitness was enough of a focus. They were keen for the tests not to be “medicalised” but that blood pressure testing should be included although not mental health testing. One of the participants was at the time, “worried about walking in a circle”. One of the venues was a little small but the students had optimised the available space and ensured the safety of the participants by walking alongside those who required assistance. Some of the participants were initially nervous about what would be expected of them and wondered if the word “fitness” would “put people off”. They also indicated that encouraging older adults to go to the gym as “Gym is not for everyone” may put people off attending these tests.

Discussion

This exploratory study has demonstrated the delivery of FFMOTs for older adults, in the community, with engagement of student physiotherapists and charitable organisations can be

successful. Participants found undertaking the FFMOT an enjoyable experience and would be happy to repeat it regularly to check their physical fitness. Additionally, despite this cohort appearing to be highly motivated to exercise, participants perceived they would increase their activity levels following the assessment. Although it was outside the remit of this study to test the long term benefit of the FFMOT, the results suggest that longitudinal studies should be designed to test the benefit to individuals, over time, of regular functional fitness testing and brief exercise interventions for the older adult.

As significant numbers of adults never participate in regular activity (Townsend *et al* 2015) thus it is important to consider the motivational factors which can increase activity in older adults. It is therefore important when considering how to motivate older adults especially as older adults often present with many co-morbidities such as osteoarthritis. Lack of enjoyment has been highlighted as a psychological barrier to exercise for those with arthritis (Wilcox *et al* 2006). Additionally Hendry *et al* (2006) exploring motivational factors for 22, 52-86 year olds exercise suggests that among other things enjoyment of exercise and activities is an important factor to encourage engagement. A strength of this study is, the question “Did you enjoy it?” was asked and 92% of the participants reported enjoying the experience and furthermore 85% stated they would come back to be re-tested in future. This could indicate that as a result of their enjoyment of the experience they will be motivated to not only re-attend FFMOT sessions but as 64(85%) of the participants stated they would like to return for further tests could help them to maintain or even improve their physical activity levels. However further research would be required to confirm this factor.

A recognised limitation of this study is the population who attended these FFMOTs in the community settings, as indicated by the IPEQ and EQ5D5L results, appeared to be already motivated to participate in physical activities and indeed generally very active. However, it is potentially possible, as there was no formal assessed measurement of their activity scores,

that they, as it was a self-reported questionnaire, may over estimated their actual activity levels.

Evidence suggests that the majority of older adults (Townsend *et al* 2015) are relatively inactive, however, community based exercise programmes provide both social and physical benefits (Killingback *et al* 2017). Perhaps introducing regular FFMOTs with the benefit of the brief individual exercise interventions could be an effective way of motivating and increasing physical activity (Bennet & Winters-Stone 2011) in community settings.

The Kings Fund (Oliver *et al* 2014) suggest that “*shifting the curve*” and concentrating on “*wellness*” and preventive, proactive measures in settings removed from traditional health care setting will enable older adults to “*age well and stay well*”. The current UK public health agenda is to encourage older adults to remain physically active (DOH 2019). The FFMOT can be undertaken by any suitably trained person (Later Life Training 2019) not necessarily health care professionals. Student physiotherapists conventionally and predominantly undertake placements in healthcare settings (University of Plymouth 2019, CSP 2019) thus, potentially, their experience of the level of encouraging fitness in older adults could be limited to those who are unwell or frail. This study had the benefit of giving physiotherapy students the first hand opportunity to work with older adults who demonstrated a variety of levels of fitness in local community settings. Thus it is hoped that this opportunity enhanced their level of knowledge on physical activity potential in older adults not necessarily requiring health interventions. Further, as a result of this study a qualitative study into the value to the student physiotherapists of conducting FFMOTs embedded into their undergraduate studies is also being undertaken.

The results of our study confirm that by sharing personal normative age-referenced physical fitness test data with older adults, can encourage them to feel more motivated and “*think about what I need to do*” to maintain their fitness. Our participants agreed that the MOTs gave them not only a “*yardstick*” by which to judge their fitness but the students, by giving them advice on personal levels of activity and information on local physical activity resources, were able to motivate them to improve their current level of fitness.

It is acknowledged that the evaluation questionnaire has several limitations specifically in providing lack of detailed baseline characteristics e.g. height, weight, current level of mobility and requirement of walking aids, but due to the time constraints of the academic calendar and student availability, the evaluation questionnaire was not piloted with a group of older adults. Thus it is suggested that any future study would address this limitation as it would not necessarily be restricted to the academic calendar and could therefore factor in a time frame for a comprehensive pilot of the evaluation questionnaire before undertaking further evaluation.

All of the participants in this study agreed that the FFMOT would be of benefit to the over 60s and 79% stated they would increase their activities as a result of their participation. A limitation of this study was that we were not able to confirm this aim. However if FFMOTs could be offered as routine care in community primary health or charitable settings our participants demonstrate that there is a potential to maintain and possibly improve or prevent deterioration in fitness for older adults. Additionally, they may well act as a restorative therapy trigger for a sub-set of the physically active population. Older adults, identified as being mildly frail or “at risk” of frailty by healthcare practitioners may benefit from FFMOTs on a regular basis but this would need further research to confirm the potential benefits.

Participants did note that “*the Gym is not for everyone*”. However, although students gave out information on local leisure facilities, exercise classes and groups they were not specifically briefed to advise visiting a gym unless this was appropriate for the participant. Evidence suggests that location and accessibility are important when considering encouraging older adults to maintain their health and wellbeing by increasing their physical activity (Oliver *et al* 2014). The results of this study has demonstrated that older adults enjoyed undertaking the FFMOT in community settings. Despite being an already active sub-set of the older population 79% of this cohort reported they would increase their activity following their FFMOT. Although it was beyond the remit of this study one of the focus group participants stated “*I think she is doing more*” about her friend who came for the FFMOT suggesting that this might have been an effective way of motivating physical activity for her friend.

This study has demonstrated that highlighting the risks of functional difficulties e.g. poor balance, to older adults has the potential to educate and inform the benefits of continuing exercise. Burford *et al* (2014) provide a model of the development of physical disability demonstrating that exercise is an effective method of reducing the effects of sarcopenia and frailty (BGS 2014, Sayer *et al* 2013). Further research is required to investigate if regular assessments of physical fitness combined with exercise interventions in community settings could potentially increase physical fitness and possibly maintain and improve QOL for older adults providing an opportunity to meet the public health agenda (GOV.UK 2018).

Despite known general health benefits of physical fitness for older adults and theoretical benefits of physical fitness screening, as yet, there are no studies which test the longer term benefit of physical fitness screening tests. It is plausible that study data from the participant

FFMOT assessments, if recorded longitudinally could contribute to the evidence base underpinning the value of shared assessment findings. It was unfortunately not within the scope of this study to retest and analyse participant FFMOT data for this purpose. Whilst this remains a limitation, this study importantly establishes acceptability of the intervention and provides process data to inform sample size estimates of future fully powered clinical trial designs.

Finally this study, by asking the question “*would you be prepared to pay*” to which 65% of the participants responded “yes” which acknowledges an increasing role for physiotherapists, healthcare professionals and other suitably qualified individuals in private and charitable sector settings, working to maintain and improve physical fitness for older adults.

Conclusion

This study has demonstrated that the FFMOT is an acceptable tool to measure functional fitness in older adults with the potential to motivate maintenance or even improvements in physical activity levels in already motivated older adults. It is possible therefore that regular physical fitness screening, before the onset of frailty, may encourage the older adult to adopt strategies to remain physically active in order to maintain their independence and quality of life. This study provides an early argument for FFMOT tests to be conducted in community, non-medical settings by individuals who have undergone recognised training to conduct the FFMOTs. However a larger longitudinal study is required to test this concept further and identify the most effective method reaching the vulnerable and more isolated older adults.

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